

2018 / 2019

Graduate Bulletin

San Diego State University

Graduate Bulletin



WELCOME TO SDSU

At San Diego State University, we're asking fundamental questions.

How do we inspire leadership?

How do we nurture tomorrow's leaders?

The answers emerge when students work alongside faculty researchers to improve lives and when innovation is not only taught but practiced. They come into view when students, faculty, and staff take on society's problems with dedication and purpose.

San Diego State University is characterized by remarkable students, exceptional and dedicated faculty and staff, and innovative programs. We are an intellectual community committed to the ideals of diversity and dedicated to human growth and development. Guided by our strategic plan, we are moving forward with initiatives to enhance student success, research and creative endeavors, and community and communication. We are resolving today's questions and anticipating those of tomorrow.

Academic and Community Engagement



San Diego State University is a community of people committed to student success and life-changing opportunities for students, such as study abroad, undergraduate research, leadership training, and entrepreneurial experiences. SDSU is the oldest higher education institution in the San Diego region, and our deep community roots provide access to internships, mentoring relationships, and volunteer opportunities that complement and enhance the classroom experience.

SDSU is an academically rich university that provides endless possibilities for students: bachelor's degrees in 95 areas, master's degrees in 78 fields, and 21 doctoral degrees (Ph.D., Ed.D., Au.D., and DPT). SDSU is a place for the best and brightest to dream of who they will become and to make those dreams a reality.





Diversity and Inclusive Excellence



Diversity is a hallmark of San Diego State University, where students from all backgrounds achieve excellence and success. The university has been recognized nationally for large increases in graduation rates and for nearly eliminating achievement gaps among ethnic and racial groups.

SDSU's campus reflects the diversity of our region and the world beyond. Students from more than 90 nations contribute to SDSU's dynamic mix of ethnic, racial, and social backgrounds.

SDSU ranks No. 6 in the nation for ethnic and racial diversity, has received the Higher Education Excellence in Diversity Award for five consecutive years, is recognized as a Hispanic-serving institution and is one of the top universities in economic diversity. More than half of our students and 42 percent of our tenured-track faculty members are women. We are a national model for educating military veterans, and we rank as one of the most LGBT-friendly campuses in the nation.

Through our "One SDSU Community" initiative, our campus fosters shared experiences, values, and aspirations that embrace our unique identities, respect our diversity, and recognize our common humanity.

International Education and Global Perspectives



One of our goals at SDSU is to create a global campus by promoting internationalization in everything from curriculum content and cultural campus activities to international research and exchange programs.

SDSU ranks No. 8 in the nation in the number of students who study abroad to gain new perspectives and to grow personally and intellectually. More than 3,000 SDSU students study abroad each year in more than 70 countries, including the United Kingdom, China, Italy, Mexico, and Spain.

Our campus-based academic programs reinforce this global perspective. These programs include the Center for International Business Education and Research; the Center for Latin American Studies; the International Security and Conflict Resolution degree program; and the International Business program, which ranks No. 12 in the nation.





Student Life



SDSU students study hard, but they also know how to have fun outside the classroom. You can join an intramural sports team or an honor society, join one of more than 300 recognized student clubs and organizations, lead a community service project or live on our lively campus or fraternity row. Our Conrad Prebys Aztec Student Union – given LEED Double Platinum status for sustainable building and for operations – is a hub for student activities with its Commuter Resource Center, restaurants, bowling alley and game room, meeting spaces and theatre.

You can cheer on 19 NCAA Division I athletics teams, which are setting new standards for success. A record number of Aztec teams are qualifying for post-season competition, and both our men's and women's basketball teams have played in the Sweet 16. Our football team has played in eight consecutive bowl games.

Research and Creative Endeavors



San Diego State is a leading public research university with a thriving research agenda and competitive awards totaling over \$134 million annually – including funding from the National Institutes of Health, the National Science Foundation, the U.S. Department of Defense, and the California Department of Health Services.

Undergraduate research and entrepreneurship are hallmarks at SDSU. Students collaborate with faculty and staff in on-campus laboratories to address national and global challenges, and they create new companies and social enterprises in our entrepreneurship and innovation centers.

Eighty-eight SDSU students have earned prestigious Fulbright awards since 2005, while other students have received Gilman International Scholarships, Boren Awards for International Study, the Udall Scholarship for environmental work, and Gates Cambridge Scholarships.





Leadership Starts Here



SDSU lives by the ethos “Leadership Starts Here” – a pretty bold statement.

It is also a promise – one that our students keep every day by focusing on academic excellence and engaging society’s challenges.

SDSU’s legacy of leadership is found in research and innovation, entrepreneurship, community engagement, and global competition.

SDSU alumni lead governments, businesses and organizations throughout the world. They are mayors, legislators, CEOs, presidents, founders, and partners. Aztecs run biotech companies, accounting firms, restaurant chains, film studios, hospitals, and the Johnson Space Center.

Mission of the University



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

The university strives to impart an appreciation and broad understanding of the human experience throughout the world and the ages. This education extends to diverse cultural legacies and accomplishments in many areas, such as the arts and technology; the advancement of human thought including philosophy and science; the development of economic, political, and social institutions; and the physical and biological evolution of humans and their environment.

San Diego State University pursues its mission through its many diverse departments and interdisciplinary programs in the creative and performing arts, the humanities, the sciences, and the social and behavioral sciences.



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NONDISCRIMINATION POLICY

San Diego State University maintains and promotes a policy of nondiscrimination and nonharassment on the basis of race, religion, color, sex, age, disability, marital status, sexual orientation, gender identity and expression, national origin, pregnancy, medical condition, genetic information, and covered veteran status.

The policy stands as a statement of this university's moral commitment to the right of all persons to equal opportunity in a non-discriminating, harassment-free atmosphere. The Office of Employee Relations and Compliance 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. Refer to San Diego State University Senate Policy File, as well as California State University Executive Orders 1095, 1096, and 1097.

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Academic and Annual Calendars

SUMMER TERM 2018

- May 22:** First day of summer term.
- May 22-July 6:** Session S1 term.
- May 22-Aug. 21:** Session T1 term.
- May 22:** First day of S1 and T1 classes.
- May 28:** Holiday – Memorial Day.
Faculty/staff holiday. Campus closed.
- May 31:** Last day to add/drop S1 classes.
- June 4:** Last day to add/drop T1 classes.
- June 29:** Last day of S1 classes.
- July 1:** Applications for advanced degree for May and Aug. 2019 graduation accepted.
- July 2:** **Without Risk:** Final day for submitting thesis with the processing fee (without risk) to Montezuma Publishing for thesis review to have the best likelihood for graduation in summer 2018.
- July 4:** Holiday – Independence Day.
Faculty/staff holiday. Campus closed.
- July 5-Aug. 21:** **At Risk:** Theses may be submitted to Montezuma Publishing on an at-risk basis. However, summer 2018 graduation is contingent upon review approval and completion of final publishing by noon on Aug. 13. Students missing the publishing deadline will be required to reapply for graduation for the term in which they expect to graduate.
- July 9-Aug. 21:** Session S2 term.
- July 9:** First day of S2 classes.
- July 17:** Last day to add/drop S2 classes.
- July 18:** Census.
- Aug. 3:** Last day for reporting results on comprehensive examinations to the Division of Graduate Affairs by department or college.
- Aug. 13:** **Final:** Thesis review process, including publishing, must be completed by noon on this date at Montezuma Publishing. Students missing the final deadline will be required to reapply for graduation for the term in which they expect to graduate.
- Aug. 16:** Last day of T1 and S2 classes. (Final examinations are the last day of classes for each summer session.)
- Aug. 21:** Last day for submission of Incomplete and RP grade removals (excluding thesis) for August 2018 graduation with advanced degree.
- Aug. 21:** **Last Day to Submit:** Final day, by noon, to submit thesis with a processing fee to Montezuma Publishing for thesis review without having to enroll in Thesis 799B the following semester.
- Aug. 21:** Grades due from instructors. (11 p.m. deadline.)
- Aug. 21:** Last day of summer term.

FALL SEMESTER 2018

- Aug. 1:** Applications for admission or readmission to San Diego State University for the spring semester 2019 accepted from domestic and international (foreign) students.
- Aug. 22:** First day of fall semester.
- Aug. 22:** Last day to officially withdraw for fall semester 2018 and receive a full refund.
- Aug. 23:** All-University Convocation.
- Aug. 25:** New Student and Family Convocation.
- Aug. 27:** First day of classes.
- Sept. 3:** Holiday – Labor Day.
Faculty/staff holiday. Campus closed.
- Sept. 6:** Last day for faculty to drop students from classes.
- Sept. 10:** Last day to add/drop classes or change grading basis.
- Sept. 10:** Last day for payment of tuition and fees.
- Sept. 10:** Last day to officially withdraw from the university without penalty fee for fall semester 2018.
- Sept. 10:** Last day to file application for advanced degree for Dec. 2018 graduation.
- Sept. 10:** Last day to file petition for concurrent master's degree credit for fall semester 2018.
- Sept. 24:** Census.
- Oct. 1:** Applications for admission or readmission to San Diego State University for the fall semester 2019 accepted. Graduate applicants should consult the Graduate Admissions website for closing dates.
- Oct. 26:** **Without Risk:** Final day for submitting thesis with the processing fee (without risk) to Montezuma Publishing for thesis review to have the best likelihood for graduation in fall 2018.
- Oct. 29-Dec. 31:** **At Risk:** Theses may be submitted to Montezuma Publishing on an at-risk basis. However, fall 2018 graduation is contingent upon review approval and completion of final publishing by noon on Dec. 17. Students missing the publishing deadline will be required to reapply for graduation for the term in which they expect to graduate.
- Nov. 2:** Last day to officially withdraw from all classes for fall 2018 and receive a prorated refund (withdrawal after Sept. 10 requires special approval and penalty fee is assessed).
- Nov. 12:** Holiday – Veteran's Day observed.
Faculty/staff holiday. Campus closed.
- Nov. 21:** No classes. Campus open.
- Nov. 22-23:** Holiday – Thanksgiving break.
Faculty/staff holiday. Campus closed.
- Dec. 12:** Last day of classes.
- Dec. 13-19:** Final examinations.
- Dec. 13:** Last day for reporting results on comprehensive examinations to the Division of Graduate Affairs by department or college.

Academic and Annual Calendars

- Dec. 17:** **Final:** Thesis review process, including publishing, must be completed by noon on this date at Montezuma Publishing. Students missing the final deadline will be required to reapply for graduation for the term in which they expect to graduate.
- Dec. 24-27:** Holiday – Winter break. Faculty/staff holiday. Campus closed.
- Dec. 28:** No classes. Campus open.
- Dec. 31:** Last day for submission of incomplete and RP grade removals (excluding thesis) for December 2018 graduation with advanced degree.
- Dec. 31:** **Last Day to Submit:** Final day, by noon, to submit thesis with a processing fee to Montezuma Publishing for thesis review without having to enroll in Thesis 799B the following semester.
- Dec. 31:** Grades due from instructors. (11 p.m. deadline.)
- Dec. 31:** Last day of fall semester.

SPRING SEMESTER 2019

- Jan. 1:** Holiday – New Year's Day. Faculty/staff holiday. Campus closed.
- Jan. 21:** Holiday – Martin Luther King, Jr. Day. Faculty/staff holiday. Campus closed.
- Jan. 22:** First day of spring semester.
- Jan. 22:** Last day to officially withdraw for spring semester 2019 and receive a full refund.
- Jan. 23:** First day of classes.
- Feb. 1:** Last day for faculty to drop students from classes.
- Feb. 5:** Last day to add/drop classes or change grading basis.
- Feb. 5:** Last day for payment of tuition and fees.
- Feb. 5:** Last day to officially withdraw from the university without penalty fee for spring semester 2019.
- Feb. 5:** Last day to file application for advanced degree for May and Aug. 2019 graduation.
- Feb. 5:** Last day to file petition for concurrent master's degree credit for spring semester 2019.
- Feb. 6:** Applications for advanced degree for Dec. 2019 graduation accepted.
- Feb. 19:** Census.
- March 26:** Last day to officially withdraw from all classes for spring 2019 and receive a prorated refund (withdrawal after Feb. 5 requires special approval and penalty fee is assessed).
- March 29:** **Without Risk:** Final day for submitting thesis with the processing fee (without risk) to Montezuma Publishing for thesis review to have the best likelihood for graduation in spring 2019.
- April 1-May 16:** **At Risk:** Theses may be submitted to Montezuma Publishing on an at-risk basis. However, spring 2019 graduation is contingent upon review approval and completion of final publishing by noon on May 11. Students missing the publishing deadline will be required to reapply for graduation for the term in which they expect to graduate.

- April 1:** Holiday – Cesar Chavez Day observed. Faculty/staff holiday. Campus closed.
- April 1-5:** Spring break.
- April 8:** Classes resume.
- May 2:** Last day for reporting results on comprehensive examinations to the Division of Graduate Affairs by department or college.
- May 9:** Last day of classes.
- May 10-16:** Final examinations.
- May 10:** **Final:** Thesis review process, including publishing, must be completed by noon on this date at Montezuma Publishing. Students missing the final deadline will be required to reapply for graduation for the term in which they expect to graduate.
- May 16:** Commencement, Imperial Valley campus.
- May 16:** Last day for submission of Incomplete and RP grade removals (excluding thesis) for May 2019 graduation with advanced degree.
- May 16:** **Last Day to Submit:** Final day, by noon, to submit thesis with a processing fee to Montezuma Publishing for thesis review without having to enroll in Thesis 799B the following semester.
- May 17-19:** Commencement, San Diego campus.
- May 24:** Grades due from instructors. (11 p.m. deadline.)
- May 24:** Last day of spring semester.

SUMMER TERM 2019

- NOTE:** Summer session dates to be determined. Refer to SDSU Summer Session *Class Schedule*.
- May 27:** Holiday – Memorial Day. Faculty/staff holiday. Campus closed.
- July 1:** Applications for advanced degree for May and Aug. 2020 graduation accepted.
- July 4:** Holiday – Independence Day. Faculty/staff holiday. Campus closed.

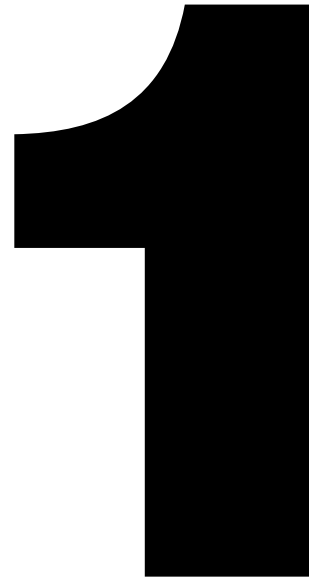
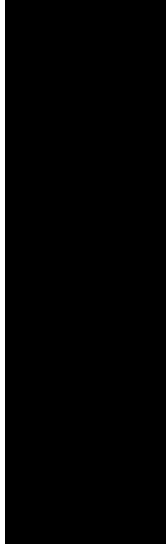
Please Note: This is not an employee work calendar and is subject to change. Refer to the SDSU website for changes to this calendar.

2018

JANUARY							FEBRUARY							MARCH							APRIL							
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6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	
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30																					30	31						

2019

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



PART



Administration and Organization
Division of Graduate Affairs
Division of Research Affairs
Colleges

Administration and Organization

Principal Officers of Administration

President of the University	Adela de la Torre
Provost	Joseph F. Johnson (Interim)
Vice President for Business and Financial Affairs and Chief Financial Officer	Thomas J. McCarron
Vice President for Research and Graduate Dean	Stephen C. Welter
Vice President for Student Affairs	Eric M. Rivera
Vice President for University Relations and Development	Mary Ruth Carleton

Administration

Academic Affairs

Senior Vice President for Academic Affairs	
Associate Vice President for Academic Affairs, Enrollment	Sandra A. Cook
Associate Vice President for Academic Affairs, Faculty Advancement	William F. Eadie (Interim)
Associate Vice President for Academic Affairs, Resource Management	Radmila Prislín
Associate Vice President for Academic Affairs, Student Achievement	Norah P. Shultz
Associate Vice President for Academic Affairs, International Programs	Alan R. Sweedler
Assistant Vice President for Information Technology	Edgar R. Hodge

Academic Deans

College of Arts and Letters	Norma Bouchard
Fowler College of Business	Lance Nail
College of Education	Y. Barry Chung
College of Engineering	Eugene A. Olevisky (Interim)
College of Health and Human Services	Steven P. Hooker
College of Professional Studies and Fine Arts	Joyce M. Gattas
College of Sciences	Walter C. Oechel (Interim)
Library and Information Access	Gale S. Etschmaier
College of Extended Studies	Radhika Seshan
Imperial Valley Campus	Gregorio A. Ponce

Graduate and Research Affairs

Vice President for Research and Graduate Dean	Stephen C. Welter
Associate Vice President for Research and Innovation	Stanley R. Maloy
Associate Dean for Graduate and Research Affairs	Edmund M. Balsdon
Assistant Dean for Division of Graduate Affairs	Andrew J. Bohonak
Director of Division of Research Affairs	Rick Gulizia
Director of Undergraduate Research and Creative Activities	Lisa M. Kath

The Graduate Council

The Graduate Council of San Diego State University consists of 22 members to include 15 full-time faculty, two from each college and one from the Imperial Valley Campus; Dean of the Graduate Division or designee, who will chair the committee; Provost, Associate and Assistant Deans of the Graduate Division, Dean of the Library and Information Access or designee, and two classified graduate students in good standing (for a current listing of graduate student members serving on the Graduate Council, visit <http://senate.sdsu.edu/graduate-council.aspx>).

Stephen C. Welter	Vice President for Research and Graduate Dean
Joseph F. Johnson (Interim)	Provost
Edmund M. Balsdon	Associate Dean for Graduate and Research Affairs
Andrew J. Bohonak	Assistant Dean for Division of Graduate Affairs

Patrick J. McCarthy	Associate Dean of the Library and Information Access
Matthew T. Lauer	College of Arts and Letters
Damon M. Fleming	Fowler College of Business
Nikhil P. Varaiya	Fowler College of Business
Marva G. Cappello	College of Education
Charles E. Degeneffe	College of Education
Khaled B. Morsi	College of Engineering
Julio R. Valdes	College of Engineering
Mark B. Reed	College of Health and Human Services
Susan M. Kiene	College of Health and Human Services
Kurt J. Lindemann	College of Professional Studies and Fine Arts
Eric S. Smigel	College of Professional Studies and Fine Arts
Greg L. Harris	College of Sciences
Vanessa L. Malcarne (Fall)	College of Sciences
Jennifer Thomas (Spring)	College of Sciences
Gregorio A. Ponce	Imperial Valley Campus

University Research Council

The University Research Council of San Diego State University is the faculty policy-making body responsible for promoting, encouraging, and publicizing the research activities of the faculty consistent with the educational mission of the university. Much of the work of the council is carried out in its standing committees that include:

- Conflict of Interest
- Copyrights and Patents
- Faculty Recognition
- Grants and Lectureships
- Institutional Animal Care and Use
- Institutional Biosafety
- Institutional Review Board
- Student Research

The University Research Council membership is composed of no fewer than 15 faculty representing the various colleges and is chaired by the vice president for research.

Stephen C. Welter	Vice President for Research and Graduate Dean
Michèle G. Goetz	Associate Vice President/Executive Director SDSU Research Foundation
Rick Gulizia (ex officio)	Director for Division of Research Affairs
Edmund M. Balsdon (ex officio)	Associate Dean for Graduate and Research Affairs
Todd W. Anderson	Department of Biology
Wayne A. Beach	School of Communication
Edward J. Beasley	Department of History
Sanford I. Bernstein	Department of Biology
Marilee J. Bresciani Ludvik	Department of Administration, Rehabilitation and Postsecondary Education
Robert O. Briggs	Department of Management Information Systems
Douglas B. Grotjahn	Department of Chemistry and Biochemistry
Kathryn M. Houk	Library and Information Access
Samuel K. Kassegne	Department of Mechanical Engineering
Claire Murphy	Department of Psychology
Ramona L. Pérez	Department of Anthropology
Gregorio A. Ponce	Imperial Valley Campus
Jessica Rentto	Business and Financial Affairs
Rick Sayen	Research Operations
Mark R. Wheeler	Department of Philosophy
Stephen A. Schellenberg	Division of Academic Engagement and Student Achievement
Peter van der Geer	Department of Chemistry and Biochemistry

Division of Graduate Affairs

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Within Graduate and Research Affairs, the Division of Graduate Affairs is the administrative unit responsible for post-baccalaureate and graduate study at San Diego State University. The Division of Graduate Affairs is composed of the academic units that offer graduate study in the university. The faculties of these units support nearly 5,000 students in over 100 master's, doctoral, and advanced certificate programs across the arts, business, education, engineering, humanities, sciences, and social sciences. The Graduate Council is a standing committee of the University Senate with representatives from the academic colleges and is chaired by the graduate dean. The council's responsibilities are broadly defined and include the development, consultation, and implementation of university-wide policies related to graduate studies, graduate student affairs, and graduate student scholarship.

The dean of the Division of Graduate Affairs is the chief administrative officer of the division and serves as chair of the Graduate Council. The graduate dean has general responsibility for implementing the policies of the Graduate Council and for the development, improvement, and administration of all post-baccalaureate study.

Graduate Study at San Diego State University

The size and scope of graduate studies at San Diego State University has increased significantly since graduate degrees were first offered at what was then San Diego State College in the 1950s. SDSU faculty embrace the necessarily close relationship between excellence in faculty research, program outcomes, student research, and teaching. Since the early 1970s, graduate study has steadily grown over a wide range of academic and professional disciplines to become an integral part of the institution's central mission. SDSU offers master's degrees that are entry-level requirements or terminal degrees in many fields of study, as well as numerous Ph.D. programs. In addition to Ph.D. degrees issued in partnership with other institutions, SDSU offers independent doctorate degrees in Audiology (Au.D.), Educational Leadership (Ed.D.), and Physical Therapy (DPT). Graduate studies are also available to meet state credentialing requirements and provide advanced certificates in many disciplines, particularly for careers in education.

Graduate studies at San Diego State University continually evolve in response to new local and global challenges and career opportunities. The faculty who support graduate studies maintain strong externally funded research programs in excess of \$100 million annually. The university is recognized nationally as a hub of entrepreneurship, innovation, and invention, SDSU is also one of the most ethnically, racially, and socioeconomically diverse universities in the United States, and is designated as a Hispanic-Serving Institution by the U.S. Department of Education. San Diego State University provides a dynamic and intellectually challenging environment for academic and professional opportunity.

Graduate Student Employment

Graduate Teaching Associates

Appointments as graduate teaching associates, known more commonly as TAs, provide students the opportunity to participate directly in the teaching activities of the university. Indeed, faculty members in many programs consider such appointments an integral part of the academic curriculum for their graduate students. Under the supervision of senior faculty, TAs provide direct instruction to undergraduate students, primarily at the lower division level.

Appointments as graduate TAs are available to qualified graduate students in all doctoral programs and many master's programs. Graduate TAs must be admitted to San Diego State University with classified or conditionally classified graduate standing. Appointments may be for a period of either one semester or the academic year. Reappointment is dependent on satisfactory performance in graduate studies (as prescribed by departmental need, Graduate Council, and satisfactory teaching performance). Information concerning an appointment as a graduate TA may be obtained from the head of the department, school, or college in which the applicant wishes to obtain the advanced degree. For further information, consult A Handbook for Graduate Assistants and Graduate Teaching Associates available at http://grad.sdsu.edu/funding/ta_ga_info.

Graduate Assistants

Graduate assistants (GA) provide instructionally related services to undergraduate students or may be assigned duties that directly support faculty research activities. Graduate assistants are available in most San Diego State University departments and schools. Graduate assistants must be admitted to San Diego State University with classified or conditionally classified graduate standing.

Appointments may be for a period of either one semester or the academic year. Reappointment or continuation of an appointment is dependent upon satisfactory performance in graduate studies (as prescribed by the Division of Graduate Affairs), departmental need, and satisfactory completion of assigned duties. Information concerning an appointment as a graduate assistant may be obtained from the head of the department, school, or college in which the applicant wishes to obtain the advanced degree. For further information consult A Handbook for Graduate Assistants and Graduate Teaching Associates available at http://grad.sdsu.edu/funding/ta_ga_info.

Student Assistants

Graduate students are eligible for employment as student assistants who perform a wide variety of tasks supporting faculty and staff across the university. Assistants are paid by the hour and are restricted to assignments not to exceed 20 hours per week. Information concerning an appointment as a student assistant may be obtained from the head of the department, school, or college in which the applicant wishes to obtain the advanced degree. A listing of available positions is also maintained by the Office of Career Services located in Student Services East, Room 1200.

Research Assistants (SDSU Research Foundation)

Some graduate students obtain part-time employment as research assistants. Research assistants work directly with faculty in a laboratory or other research facility in the health, physical, and social sciences. Although research assistants are employees of the SDSU Research Foundation, they are generally hired directly by faculty members seeking assistance for specific research programs. Students may inquire about such appointments through the appropriate faculty in their program, the chair or director of the respective department, or the Office of Human Resources of the SDSU Research Foundation. Those interested in adding their names to a list of candidates for current or future openings may obtain application materials from the San Diego State University Research Foundation, Gateway Building, 5250 Campanile Drive, San Diego, CA 92182-1945. Further information may also be available on faculty and department websites.

Scholarships

California Pre-Doctoral Program

The California Pre-Doctoral Scholarship Program targets students who have experienced economic and educational disadvantages, and intend to apply to a doctoral program. The program supports upper division undergraduate students, and current (non-Ph.D.) graduate students. The program places a special emphasis on increasing the number of CSU students who enter doctoral programs at one of the University of California institutions. Students chosen for this award are designated Sally Casanova Scholars. Recipients receive direct guidance from CSU faculty members and receive funding for travel, development (broadly defined), and summer research experience (at any U.S. major research university). For more information, contact the Division of Graduate Affairs or visit <http://www.calstate.edu/PreDoc/index.shtml>.

Chancellor's Doctoral Incentive Program

The Chancellor's Doctoral Incentive Program targets current or incoming doctoral students who intend to eventually pursue CSU instructional faculty positions. Students who obtain a loan through this program may have a portion of it forgiven if they obtain a CSU faculty position. For more information, contact the Division of Graduate Affairs or visit <http://www.calstate.edu/Pre-Doc/index.shtml>.

Additional Scholarships and Financial Aid Opportunities

Many additional scholarships and financial aid opportunities are available to San Diego State University graduate students. Contact the Office of Financial Aid and Scholarships or visit http://go.sdsu.edu/student_affairs/financialaid/Default.aspx.

Graduate Study in the College of Extended Studies

Most courses that apply to graduate degrees are state-supported. Enrollment in state-supported graduate courses requires admission to SDSU in an appropriate graduate program. Non-degree seeking students may be eligible to enroll for state-supported courses if there are open seats, through the College of Extended Studies (CES) Open University program. Individuals considering future graduate studies should consider that most master's degree programs allow use of no more than nine units of combined Open University and self-supported CES courses taken prior to admission. Applicants with prior coursework should consult the adviser for their intended program, or the Division of Graduate Affairs, or the section of the Graduate Bulletin entitled Graduate Program Unit Limits and Guidelines. For more information about Open University, visit <https://www.ces.sdsu.edu>.

San Diego State University offers some CES courses that are applicable to graduate degrees, certificates and credentials, and a small number of degrees that include only self-supported CES courses. Students who intend to earn a degree from these programs must be admitted to and matriculate in the program before completing more than nine units. Students in CES programs that are offered only during summer session must attend a minimum of three summers to earn their degree.

Fees for CES programs and courses (whether Open University or self-supported CES) differ from fees for state-supported San Diego State University courses. For more information, visit <https://www.ces.sdsu.edu>.

Veterans and Graduate Study

San Diego State University is approved to train veterans under the G.I. Bill. Veterans who are interested in graduate work should visit the Joan and Art Barron Veterans Center located in Student Services West for information and counseling regarding veterans' benefits. Veteran students and potential applicants may also call 619-594-5813 or visit <http://www.sdsu.edu/veterans> for more information.



Division of Research Affairs

Research Affairs

The Division of Research Affairs is responsible for the institutional approval of all grant proposals and contracts relating to sponsored research, instruction, and service agreements; administration of research regulatory and intellectual property services; administration of intramural faculty grants, fellowships and other institutional research support programs; administration of university cost-sharing; coordination of SDSU Research Foundation/University liaison.

The Division of Research Affairs is supervised by the director, who with the vice president for research, is responsible for the development, improvement, and administration of research activities at the university.

The importance of research in graduate instruction is recognized by the faculty, and all graduate programs provide for research on the part of the graduate student. Graduate students involved in thesis or other research at the university must comply with all applicable university research policies, including, but not limited to, those related to the use of human and animal subjects in research.

University Research Facilities and Organizations

Among the facilities for research that students may utilize are those provided in organized bureaus, centers and institutes located on the campus; specialized off-campus research facilities and field stations; inter-institutional, consortia and other cooperative research facilities.

Regulatory Compliance

Conflict of Interest Committee (COI)

SDSU investigators submitting, renewing, or participating in a proposal requesting funds from any designated external sponsor or receiving a gift or monetary pledge must file the appropriate financial disclosure statement at the time of the submission of the federal proposal, or within 30 days or prior to receipt of a privately sponsored grant or contract or receipt of a gift or monetary pledge. Disclosures must be updated on an annual basis during the period of the award and as new reportable significant financial interests are obtained. Disclosure statements are reviewed and evaluated by the Conflict of Interest Committee. The committee reviews the information provided by the investigator to determine whether the financial interest could affect the conduct or reporting of the project, and determine if any conditions or restrictions should be imposed on the investigator or research protocol in order to manage, reduce, or eliminate conflicts that are identified. The committee may also evaluate whether the financial interest has the potential to influence financial expenditures, personnel decisions, or facilities usages, limit or influence the teaching and research environment of the university. For more information contact the Division of Research Affairs, 619-594-5938. The website is http://research.sdsu.edu/research_affairs/conflict_of_interest.

Institutional Animal Care and Use Committee (IACUC)

The Institutional Animal Care and Use Committee (IACUC) at SDSU functions in accordance with Federal and State regulations and institutional policy. The Division of Research Affairs provides administrative support to this committee for implementing university policy for research, testing, or education involving the use of animals. Call 619-594-0905 for more information. The website is http://research.sdsu.edu/research_affairs/animal_care.

Institutional Biosafety Committee (IBC)

SDSU is responsible for ensuring that recombinant DNA research or experiments involving biological or potentially hazardous materials are conducted in compliance with the National Institute of Health Guidelines to promote safe and responsible practices. The Institutional Biosafety Committee (IBC) reviews research for this purpose. The IBC is a committee of the University Research Council appointed by the associate vice president for research. The Division of Research Affairs provides administrative support to the IBC.

For information regarding SDSU's Biosafety Program, visit the Environmental Health and Safety website at <http://bfa.sdsu.edu/ehs/> or contact the Institutional Biosafety officer at 619-594-2865. For information specific to the Institutional Biosafety Committee, contact the Division of Research Affairs, 619-594-0905 or e-mail ibc@mail.sdsu.edu. The website is http://research.sdsu.edu/research_affairs/biosafety.

Institutional Review Board (IRB)

The Institutional Review Board (IRB) reviews research when procedures are proposed to obtain information about a living individual through the use of a survey, interview, observation, experimentation, or the analysis of human tissues, records, samples, or other data previously collected from human subjects. All research involving human subjects, conducted within the jurisdiction of SDSU's Federalwide Assurance, must be reviewed and approved by the IRB in advance of study initiation. The IRB reviews research involving human subjects to determine and certify that all projects comply with the federal and institutional regulations and policies, and ethical standards.

The Division of Research Affairs provides administrative support to the IRB. For general information, application procedures, guidance on ethical practices, and submission deadlines visit the website at http://research.sdsu.edu/research_affairs/human_subjects, e-mail irb@sdsu.edu, or call 619-594-6622.

Research Promotion

Albert W. Johnson University Research Lecture

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

Lecturers have included Dr. Joseph W. Ball, Professor of Anthropology; Dr. Diane K. Lapp, Professor of Teacher Education; Dr. Arthur Getis, The Stephen and Mary Birch Foundation Chair in Geographical Studies and Professor of Geography; Dr. Dipak K. Gupta, Professor of Political Science; Dr. E. Percil Stanford, Professor of Social Work; Dr. Donna J. Thal, Professor of Speech, Language, and Hearing Sciences; Dr. Catherine Yi-yu Cho Woo, Professor of Chinese [Senate Distinguished Professor]; Dr. Edward P. Riley, Professor of Psychology; Dr. Melbourne F. Hovell, Professor of Public Health; Dr. William G. Tong, Professor of Chemistry and Biochemistry; Dr. Eugene A. Olefsky, Professor of Mechanical Engineering; Dr. Walter C. Oechel, Professor of Biology; Dr. Mark A. Sussman, Professor of Biology; Dr. John P. Elder, Professor of Public Health [Senate Distinguished Professor]; Dr. James F. Sallis, Professor of Psychology; Dr. John R. Weeks, Professor of Geography; Dr. Sanford I. Bernstein, Professor of Biology; Dr. Karen D. Emmorey, Professor of Speech, Language, and Hearing Sciences; Dr. Samuel S.P. Shen, Professor of Mathematics; Dr. Joanne M. Ferraro, Professor of History; Dr. Douglas A. Stow, Professor of Geography; Dr. Fridolin Weber, Professor of Physics; and Dr. Stuart C. Aitken, Professor of Geography. The website is http://research.sdsu.edu/research_affairs/albert_w_johnson.

Student Research Committee (SRC)

The Student Research Committee (SRC) is responsible for planning the annual Student Research Symposium (SRS) to showcase student research, scholarship, and creative activities. In addition, members of this committee assist in the review of Graduate Student Travel Fund applications and make recommendations for the Inamori Fellowship program. For more information, visit the website at http://research.sdsu.edu/research_affairs.

Technology Transfer Office (TTO)

The Division of Research Affairs (DRA) and the Technology Transfer Office (TTO) serve SDSU in the management of new intellectual property developed by SDSU faculty and staff. Both play an active role with responsibilities to ensure compliance with all relevant laws as well as to open doors for impacting the communities where our researchers work. The TTO provides a central location where faculty, students, and staff may receive advice and assistance in the commercialization of their inventions, copyrights, and other scholarly work. In addition, the TTO assists in setting up new spin-off companies and obtaining venture capital for future development. The TTO is an SDSU Foundation office, functioning on behalf of the university community. For more information, call 619-594-0516 or visit the TTO website at <http://tto.sdsu.edu>.

University Copyrights and Patents Committee (UCPC)

The University Copyrights and Patents Committee (UCPC), a standing committee of the University Research Council, is charged with implementing the provisions of the copyrights, trademarks, and trade secrets policy, reviewing disclosures and declarations to ascertain the extent of institutional support involved in the completion of intellectual properties and make recommendations to the vice president for research or assignment of ownership rights and division of royalties. For more information about the UCPC and the SDSU policy, see the intellectual properties section of the website at <http://gra.sdsu.edu/grad/research/intproptechdev.html>.

University Grants Program (UGP)

The University Grants Program (UGP) was created to integrate independent funding mechanisms through which faculty derive internal support for creative and scholarly research. These internal funding sources now include: Research, Scholarship, and Creative Activity (RSCA) awards, the Faculty Development Program (FDP), Faculty Grant-in-Aid for Research (GIA), the Adams Humanities Endowment and the Office of the Provost. The Division of Research Affairs administers the UGP. For more information, contact the Division of Research Affairs at 619-594-5938 or visit the website at http://research.sdsu.edu/research_affairs/university_grants_program.

Graduate Research Centers and Institutes

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

Susan Baxter, Executive Director

Created in 1987 as a systemwide program, the California State University Program for Education and Research in Biotechnology (CSUPERB) funds innovative curriculum development, partners with the life science industry, and supports collaborative CSU student and faculty research. The CSUPERB program office is hosted at San Diego State University. CSUPERB promotes biotechnology workforce development by supporting evidence-based instructional practices, experimental learning, and programs for faculty and students at all 23 CSU campuses. The program involves students and faculty from agriculture, business and computer science departments, clinical sciences, engineering, life sciences, mathematics, and physical sciences.

CSUPERB organizes the annual CSU Biotechnology Symposium and serves as the official biotechnology liaison for the CSU with educational, government, industry, and philanthropic partners. CSUPERB also hosts the NSF-funded CSU I-Corps entrepreneurship education program.

CSUPERB recognizes that modern biotechnology preparation requires the integration of coursework, hands-on practice and participation in multi-disciplinary, entrepreneurship projects or team-based research. CSUPERB's competitive award, scholarship, and

seed grant programs include Curriculum Development Grants, Crellin Pauling Student Teaching Awards, CSU I-Corps program, Don Eden Graduate Student Research Award, Entrepreneurial Joint Venture Grants, Glenn Nagel Undergraduate Research Award, Howell-CSUPERB Research Scholars Awards, New Investigator Grants, Presidents Commission Scholar Awards, Research Development Grants, and student and faculty travel grant programs. In total, these programs award over \$800,000 to CSU faculty and students annually.

CSUPERB programs are administered by an Executive Director, a strategic planning council, and a faculty consensus group, involving faculty representatives from each CSU campus. The Presidents' Commission includes presidents from San Diego State University, Cal Poly Pomona, CSU East Bay, CSU San Marcos, CSU Northridge, and San Francisco State University. Visit the program websites at <http://www.calstate.edu/csuperb> and <http://www.csubiocompass.org> for more information.

Mount Laguna Observatory

Paul B. Etzel, Director, Professor Emeritus

San Diego State University operates Mount Laguna Observatory under special permit from the US Forest Service some 45 road miles east of the campus at an elevation of 6100 feet in the Cleveland National Forest. The current research telescopes include two reflectors with apertures of 24- and 40-inches; a new 48-inch reflector is being built jointly with the University of Kansas. Each has a modern telescope control system that allows for remote and robotic observing over the Internet via high-speed (45 Mbps) wireless connectivity through the University of California, San Diego. Auxiliary equipment includes multiple CCD cameras, Near-IR camera, CCD spectrograph, and photoelectric photometers. Support facilities include a shop building, dormitory and apartments for observers. Associated with the observatory is the Awona Harrington Visitor Center, which supports educational programs and visiting astronomers. The 21-inch Buller telescope serves General Education classes on the main campus, and limited public outreach programs in the summer months with the US Forest Service. The website is <http://mintaka.sdsu.edu>.

Watershed Science Institute (WSI)

Trent W. Biggs, Director

The Watershed Science Institute (WSI) promotes collaboration among SDSU researchers and communities involved in the management and regulation of land and water resources. The objective of WSI is to improve the integration of science, policy, and management of watersheds by aligning research questions with critical management needs. The regional focus is on Southern California, including San Diego County, Imperial Valley, and the US-Mexico Border region, all of which face critical challenges related to water resources and water quality, drinking water supply shortages, climate change, water quality deterioration, impaired surface water bodies, soil erosion, and coastal contamination. WSI has collaborators across the university, including faculty in biology, civil and environmental engineering, geography, mathematics and statistics, and public health, and is therefore a university-wide institute housed in the Division of Research Affairs. Community collaborators include the City of San Diego Water Department, San Diego Coastkeeper, San Diego Regional Water Quality Control Board, San Diego River Conservancy, San Diego River Park Foundation, Southern California Coastal Water Research Project, and others. For more information, visit <http://watershed.sdsu.edu>.

College of Arts and Letters

Administration

Dean: Norma Bouchard

Associate Dean: Peter C. Atterton

Associate Dean: Madhavi M. McCall

Assistant Dean for Student Affairs: Karey Sabol

Senior Director of Development: Janee Shaw

Director of Resources Management: Elaine Rother

Research Centers and Institutes

Bread and Roses Center

Huma Ahmed Ghosh and Kimala J. Price, Co-Directors

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 Bread and Roses Center plays a central role in promoting activism in close connection with research and teaching. Since its founding in 2002 by the Department of Women's Studies, the center has been home to interdisciplinary and intersectional projects that foster women's economic, social, and political empowerment; promote internationalization and transnational feminist collaborations; build a stronger local feminist community within the university and with other San Diego organizations; link feminist theory to practice; and train future feminist advocates and professionals.

The Bread and Roses Center is housed in the Department of Women's Studies and can be reached by contacting the department office at 619-594-2952 or on the website at <http://breadandroses.sdsu.edu>.

Center for Asian and Pacific Studies

Sandra A. Wawrytko, Director

The Center for Asian and Pacific Studies brings together interested students, faculty, and community members, to promote teaching, research, and contemporary dialogues on the cultures and societies of Asia and the Pacific Rim and their relationships to North America. To explore East Asia, South Asia, Southeast Asia, the Pacific Rim, and Asian American communities, the center draws on the academic resources of multiple departments and programs within and outside of the College of Arts and Letters, including: anthropology, art, Chinese, comparative literature, economics, geography, history, Japanese, linguistics, philosophy, political science, religious studies, sociology, and women's studies. The center supports colloquia and symposia, curriculum development, student and faculty research, community research, international programs, and new college initiatives to educate students, community members, and working professionals about Asian and Pacific languages, cultures, politics, economies, histories, and societies. The center promotes faculty and student exchanges with Asian universities as well as study abroad programs in the Asia Pacific. The center houses the undergraduate major, the emphasis in Chinese Studies and Language, a minor in Asian studies, a minor in Chinese studies, as well as the graduate program. For more information, please visit <http://asiapacific.sdsu.edu>.

Center for Earth Systems Analysis Research (CESAR)

Piotr L. Jankowski, Douglas A. Stow, Co-Directors

The Stephen and Mary Birch Foundation Center for Earth Systems Analysis Research (CESAR) was founded in 1986 as a computer-based facility for geographic information science research and instruction that is administered by the Department of Geography. The purpose of the center is to apply state-of-the-art, geo-spatial technology in geographic information systems (GIS), global positioning systems (GPS), remote sensing, image processing, automated cartography, spatial statistics, and spatial modeling to problems with geographic dimensions. As such, a number of Geography Department faculty are affiliated with the center. Research conducted by CESAR is directed at both applied and fundamental problems in fields ranging from urban and regional planning to earth system science. This research

includes computer-based map and image data processing and spatial simulation modeling, as well as field-based data collection. CESAR has extensive hardware, software, imaging systems, and field equipment resources in its four laboratories: (1) Richard Wright Spatial Analysis Laboratory, (2) Regional Analysis Laboratory (REGAL), (3) William Finch Remote Sensing Laboratory, and (4) Stephen and Mary Birch Foundation GIS Laboratory.

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

Center for European Studies

Veronica Shapovalov, 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 Veronica Shapovalov in the Department of European Studies at 619-594-5111, 619-594-7147, or veronica.shapovalov@sdsu.edu.

Center for Health Economics and Policy Studies (CHEPS)

Joseph J. Sabia, Director

The Center for Health Economics and Policy Studies (CHEPS) is an interdisciplinary research center that supports impactful, policy-relevant scholarship in health economics and social policy analysis. CHEPS brings together faculty and graduate students engaged in complementary research in the areas of economic demography, the economics of crime and punishment, the economics of risky health behaviors, and national defense policy.

For more information, visit <http://cheeps.sdsu.edu>.

Center for Human Dynamics in the Mobile Age (HDMA)

Ming-Hsiang Tsou, Director

The Center for Human Dynamics in the Mobile Age (HDMA) examines the transformation of innovative academic research into technological and practical software solutions for solving real world problems (such as disease outbreaks, disaster response and recovery, health disparities in cancer and obesity, drug abuse, and urban crime rates). Researchers integrate spatial science (GIS and GPS technologies), mobile applications and technologies, and big data sources to analyze real world problems in order to build transformative scientific theories and computational models for understanding human dynamics. For more information, please visit <http://humandynamics.sdsu.edu>.

Center for Information Convergence and Strategy (CICS)

André Skupin and Akshay Pottathil, Co-Directors

The Center for Information Convergence and Strategy (CICS), established in mid-2014, focuses on the application of modern technology in diverse domains at local, state, federal, tribal, and international levels. It supports research across related disciplines with an emphasis on data acquisition and analytics, social media solutions, strategic mapping, and systems integration and development. From visualization to predictive analytics, CICS leverages various information technologies to evaluate current trends and develop strategies based on dynamically evolving content.

To promote innovation through open collaboration, the center offers transparent interaction among government, industry, and academia by acting as a platform for transdisciplinary research

and education efforts, with a focus on data mining and advanced visual techniques, as well as building strategies and solutions for government and private industry. To incubate innovation organically, CICS aims to catalyze and nurture partnerships and collaborations in strategic regions globally.

The center comprises a diverse group of faculty researchers and subject matter experts that deploy a range of methodologies, from machine learning and advanced visualization to rhetoric analysis, applied to subjects as diverse as disaster response, global security, threat reduction, business development, biomedicine, public health, and digital humanities.

For further information or to schedule a visit, see the website at <http://cics.sdsu.edu>. The CICS office is located in Storm Hall, Room 339.

Center for Interdisciplinary Studies of Young People, Environments, Society, and Space (YESS)

Stuart C. Aitken, Director
Tom Herman, Managing Director
Fernando J. Bosco, Pascale J. Marcelli, Ramona L. Perez, P.J.E. (Jenny) Quintana, Shulamit N. Riblatt, Co-Directors

YESS is an interdisciplinary collective of academic and community interests that integrates multiple approaches to foster child and youth well-being. The mission of the center is to support research on children, environments, families, society, and space. It includes not only international scholarship and global perspectives on families and young people but also local community research initiatives in San Diego and Tijuana.

The geographical contexts within which young people live structure individual lives and provide connections to social and political formations. It is important to get beyond the problematization of “children,” “families,” and “communities” as categories so that we may find ways to account for the unique processes of identity formation and the relationships through which young people construct their lived spaces. Consequently, YESS supports research that is intent on raising new questions concerning the interdependence of children, caregivers, their communities and social and spatial structures.

The center focuses on local and international research, workshops, and conferences as funding allows. It is connected to international child research centers in Africa, Asia, Europe, and Latin America. YESS sponsors the international Routledge journal, *Children's Geographies: Advancing interdisciplinary understanding of younger people's lives*. In addition to this international, global focus, YESS supports research in San Diego and Tijuana that relates to children, families and communities.

For information call 619-594-6498, or visit the website at <http://geog.sdsu.edu/Research/Projects/ISYS/>.

Center for Islamic and Arabic Studies

Ahmet T. Kuru, Director

The Center for Islamic and Arabic Studies administers the minor in Islamic and Arabic Studies, and the major in Social Science: Emphasis on Islamic and Arabic Studies. It is committed to supporting teaching and research 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, visit the website at <http://www.cias.sdsu.edu>.

Center for Latin American Studies

Ramona L. Pérez, 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. 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 and Design; English and Comparative Literature; Economics; Geography; History; Political Science; Public Affairs; Public Health; Social Work; Sociology; Spanish and Portuguese Languages and Literatures; Women's Studies; and the Fowler College of Business. In addition, the center is involved with the development of innovative methods of instruction in Mixtec, Spanish, and Zapotec; 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.

For additional information, visit the website at <http://latinamericanstudies.sdsu.edu>.

Center for Qualitative Research

Norma Ojeda, Interim 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. Qualitative researchers utilize a wide range of methods to gather data including participant observation, in-depth interviews, content analysis, focus groups, photography, film, and videography to accomplish a holistic study of social meanings, social relations, and social institutions. The primary objectives of the center are to:

- Create and sustain an interdisciplinary community of scholars whose principal research focus is qualitative;
- 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.

For more information, contact the center at 619-594-4826.

Charles W. Hostler Institute on World Affairs

Farid Abdel-Nour, Honorary Director

The Charles W. Hostler Institute on World Affairs plays an important role in the educational mission of SDSU. It was founded in 1942 as the Institute on World Affairs to inform students, faculty, and the wider public on global affairs. The institute has provided the SDSU and greater San Diego communities with high level and spirited intellectual engagement on a rich diversity of international issues and controversies. Recent topics have included drone warfare and targeted killings, international war crime courts, Iran's stance on nuclear weapons and its evolving relationship with Israel, and new challenges in U.S. foreign policy. The institute includes an upper division political science course every spring. Recent themes of this course have been international law and global justice, moral responsibility in world affairs, and critical Israeli voices.

The institute prides itself on encouraging robust critical debate, including the airing of highly controversial themes under the operating motto of *audiat et altera pars* (let the other side be heard). Speakers are drawn from all areas of global affairs, including international diplomacy, academia, national security, and protest politics. The institute is honored to bear the name of Charles W.

Hostler, former U.S. Ambassador to Bahrain. Ambassador Hostler served his country with distinction and provided generous support in time and money to the institute and many other worthy causes. More information can be found at <http://hostler.iwa.sdsu.edu>.

Collections Management Program (CMP)

Jaime Lennox, Interim Director

The Collections Management Program (CMP) works toward the following goals: preserving and curating historic and prehistoric anthropological, archaeological, and ethnological collections; encouraging professional and student research with the collections; promoting the preservation of these resources in partnership with Native Americans and other ethnic groups; and advocating community involvement with the collections. It meets federal and state legislation regarding care of the collections, fosters an understanding of the value and importance of the collections, and provides advanced curation management and facilities for the care of over 900 collections and several hundred thousand artifacts. For more information on CMP and internship opportunities, visit the website at <http://cmp.sdsu.edu>.

Confucius Institute (CI)

Li-Rong Lilly Cheng, Managing Director

The Confucius Institute (CI) at San Diego State University (SDSU) was established in collaboration with the Confucius Institute Headquarters (Hanban), the executive body of the Chinese Language Council International, a non-governmental and non-profit organization affiliated with the Ministry of Education of China. Housed in the College of Arts and Letters, the purposes of the CI of SDSU are to strengthen educational cooperation between China and the United States and to promote development of Chinese language education at the primary, secondary, and tertiary levels as well as at the community colleges. The CI at SDSU focuses especially on teacher training by offering both on-site and online classes while utilizing the most advanced language teaching pedagogy and technology. The CI at SDSU has a partner institution in China – Xiamen University, a distinguished national research university. For more information, visit the website at <http://confucius.sdsu.edu>.

Institute for Ethics and Public Affairs (IEPA)

Mark R. Wheeler, Director

The Institute for Ethics and Public Affairs (IEPA) at San Diego State University seeks to promote critical thinking about moral issues that are often complex in nature. IEPA aims 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. Housed in the Department of Philosophy, IEPA 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. Visit the website at <http://ethics.sdsu.edu> for details.

Institute for Regional Studies of the Californias (IRSC)

Paul Ganster, Director

The Institute for Regional Studies of the Californias (IRSC) provides San Diego State University with a forum for the investigation, discussion, and dissemination of information about the United 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. For more information, visit the website at <http://irsc.sdsu.edu>.

International Population Center (IPC)

John R. Weeks, Director

The International Population Center (IPC) 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, the U.S.-Mexico border, Africa, and the Middle East.

Although it is located in the Department of Geography, IPC 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. Contact the center at 619-594-8040 or visit the website at <http://geography.sdsu.edu/Research/Projects/IPC/ipc2.html>.

International Studies Education Project (ISTEP)

Emily M. Schell, Interim Director

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

ISTEP programs are multidisciplinary and collaborative in nature, involving partnerships with other SDSU academic departments, centers and institutes, as well as with other educational institutions and community groups. Programs include in-service teacher training and professional development workshops and institutes, curriculum development, student-focused programs, and partnerships with schools and districts. The ISTEP Instructional Resource Center is a "demonstration" collection of K-16 instructional materials in global issues, world areas and cultures, and cross-cultural education available to SDSU students and educators throughout San Diego County.

For more information, visit ISTEP's website at <http://istep.sdsu.edu>.

Language Acquisition Resource Center (LARC)

National Language Training Center (LTC)

Mathias Schulze, Director, LARC and LTC
Chris Brown, Managing Director, LARC and LTC
Trevor Shanklin, LARC Laboratory Director

SDSU created the Language Acquisition Resource Center (LARC) in 1989 to teach foreign languages more effectively using technology. From 1990-2014, LARC served as a national Language Resource Center (LRC), with funding from the U.S. Department of Education. Since 2011, LARC serves as a national Language Training Center to train military personnel in critical world languages and cultures. LARC laboratories and facilities serve area K-16 teachers, enabling them to do research in second language acquisition and to assess language proficiency. LARC staff and faculty provide professional development, experiences for teachers focused on enhancing cross-cultural competence and developing language competence, particularly in less commonly-taught languages. Students and teachers use the LARC

laboratories to explore advanced technologies and to enhance language learning experiences. SDSU's LARC 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 Asian/Middle Eastern Languages, and Spanish and Portuguese Languages and Literatures).

LARC has enhanced its infrastructure and Internet capabilities in order to better explore and develop models of distributed and distance learning, as well as digital humanities materials. These models reflect the changing demographics of SDSU students and require new curricula to accommodate evolving student learning preferences. LARC's archives house learning objects, authentic materials, lesson plans, and courses and allow for online contributions from national and international collaborators.

LARC hosts companion initiatives, STARTALK Teacher and Student summer programs, focusing on youth and critical languages; ProjectGO (Project Global Officers), whose major purpose is to create opportunities for ROTC students to be learners of Arabic, Persian, Russian, and other world languages who can reach advanced levels of proficiency; and SAILN (the Southern Area International Language Network), offers professional development to world language teachers in several counties of Southern California.

Visit the website at <http://larcnet.sdsu.edu> for more information.

Lipinsky Institute

Risa Levitt Kohn, Director

The Lipinsky Institute supports the advancement of community outreach and annual visiting Israeli professorships. To learn more, visit the website at <http://jewishstudies.sdsu.edu>.

National Center for the Study of Children's Literature (NCSCL)

Joseph T. Thomas, Jr., Director

Situated in the Department of English and Comparative Literature, the National Center for the Study of Children's Literature (NCSCL) embodies SDSU's long-term commitment to the study of children's and adolescents' literatures. As one of North America's oldest and largest programs, SDSU's children's literature program employs many specialists with national and international reputations and enrolls as many as 1,000 students annually in its undergraduate classes, in its Master of Arts degree in English, specialization in children's literature, and in its Advanced Certificate in Children's/Adolescent Literature.

As a research center, the NCSCL hosts visiting scholars, sponsors annual lectures and special events, and provides faculty with the wherewithal to engage in scholarship within a collegial environment. In terms of campus and community outreach, NCSCL faculty collaborate with other programs and departments, conduct summer programs and professional seminars for K-12 teachers, discuss books for the young in various media outlets, and speak to public and professional groups. NCSCL faculty and students also review contemporary children's/young adult books and have donated thousands of books to the SDSU library and to local school districts; these reviews and other announcements are available at <http://sdsuchildlit.blogspot.com>. Information about the NCSCL can be found at <http://childlit.sdsu.edu>.

South Coastal Information Center (SCIC)

Seth W. Mallios, Director; Jaime Lennox, Coordinator

The South Coastal Information Center (SCIC) promotes and ensures the preservation of historic resources in San Diego County through archaeological research, archival maintenance, and education. As the state-sponsored archaeological archive for the region, SCIC is responsible for coordinating all written and spatial information for over 50,000 archaeological sites. SCIC specializes in digital conversion and analysis and has a fully integrated archaeological Geographic Information System (GIS). Student internships are available with emphasis on the California Historical Resources Information System (CHRIS) and GIS. For more information, visit the website at <http://scic.org>.

Watershed Science Institute (WSI)

Trent W. Biggs, Director

The Watershed Science Institute (WSI) promotes collaboration among SDSU researchers and communities involved in the management and regulation of land and water resources. The objective of WSI is to improve the integration of science, policy, and management of watersheds by aligning research questions with critical management needs. The regional focus is on Southern California, including San Diego County, Imperial Valley, and the US-Mexico Border region, all of which face critical challenges related to water resources and water quality, drinking water supply shortages, climate change, water quality deterioration, impaired surface water bodies, soil erosion, and coastal contamination. WSI has collaborators across the university, including faculty in biology, civil and environmental engineering, geography, mathematics and statistics, and public health, and is a university-wide institute housed in the Division of Research Affairs. Community collaborators include the City of San Diego Water Department, San Diego Coastkeeper, San Diego Regional Water Quality Control Board, San Diego River Conservancy, San Diego River Park Foundation, Southern California Coastal Water Research Project, and others. For more information, visit <http://watershed.sdsu.edu>.

Social Science Research Laboratory (SSRL)

Cathy Cirina-Chiu, Managing Director

Established in 1974, the Social Science Research Laboratory (SSRL) was founded to support social research at San Diego State University and in the San Diego community. SSRL currently provides survey research and program evaluation services to university faculty and administrators, local government agencies, and non-profit organizations. SSRL has completed program evaluations in a variety of program areas, including youth violence prevention, LGBT health, substance abuse, and HIV prevention. Services available to clients include program evaluation, focus groups, telephone, web, mail, intercept, multi-mode and multi-language surveys, research design, and data analysis.

SSRL also provides graduate-level training in survey research methodology and practices through its Internship in Applied Survey Research and Program Evaluation. The goal of the internship is to provide eligible graduate students with field experience in survey research and program evaluation and an opportunity to apply the information and skills learned in their graduate program curriculum in a real-world social research setting. More information can be found at <http://ssrl.sdsu.edu>.

Fowler College of Business

The Fowler College of Business 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 Fowler College of Business programs are registered with the Certified Financial Planner Board of Standards. Visit the Fowler College of Business website at <https://business.sdsu.edu>.

Administration

Dean: Lance Nail

Senior Associate Dean: George E. Belch

Associate Dean for Academic Affairs: David P. Ely

Assistant Dean for Student Affairs: Kristie A. Dock

Director of Assessment: Kathleen A. Krentler

Director of Graduate Programs: Nikhil P. Varaiya

Director of Undergraduate Programs: Gary M. Grudnitski

Director of Graduate Career Management Center:

Beverly K. Bracker

Director of Resource Management: Davette Kawachi

Research Centers and Institutes

Center for Accounting in the Public Interest

Steven L. Gill, Interim Director

The Center for Accounting in the Public Interest (CAPI) was established in 2006 and received its first grant from the President's Leadership Fund. The center provides online resources and communication through the website at <http://capi.sdsu.edu>.

Center for International Business Education and Research (CIBER)

Mark J. Ballam, Managing Director

Martina Musteen, Faculty Director

A. Paige Bryant, Project Coordinator

San Diego State University's Center for International Business Education and Research (SDSU CIBER) is a national center of excellence funded, in part, by a grant from the U.S. Department of Education. The overall mission of the national CIBER program is to help ensure the United States' long-term international competitiveness by supporting research, education, and outreach activities.

One of 17 centers nationwide, SDSU CIBER was one of the first five established in 1989 and assists in linking the manpower and information needs of U.S. business with the international education, language training and research capacities of universities across the nation. SDSU CIBER serves as a catalyst to further integrate and advance a number of diverse activities relating to international business education and research. Activities of SDSU CIBER include support for faculty research, international business and foreign language curricular initiatives, outreach and development programs for the business community, and training programs for language and business faculty. SDSU CIBER also organizes conferences, workshops, and seminars designed to improve our nation's capacity to compete in the global economy.

SDSU CIBER is located in the Fowler College of Business, and collaborates with programs and colleges across the university. For more information, visit <http://business.sdsu.edu/ciber>.

Center for the Study of Personal Financial Planning (CSPFP)

Marie-Eve Lachance and Ning Tang, Co-Directors

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

The theoretical base of decision-making criteria for personal financial decisions is weak and sometimes non-existent. In many cases, individuals, families, and their financial planners and advisers make important decisions that have little or no theoretical foundation. The finance discipline – as taught at the university-level – has grown around corporate decision-making, not

decisions of the household. The development of an emerging financial planning profession has made this lack of theoretical basis evident. The center is founded on the belief that there is a significant need for scholars to share their ideas and mutually develop their research thoughts, for financial reporters to bring the practical application of this work to the attention of professionals and the public, and for students engaged in the study of financial planning to be aware of the latest findings of researchers engaged in this field.

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

The center can be reached at mlachanc@mail.sdsu.edu.

The Corky McMillin Center for Real Estate (CMCRE)

Lance A. Nail, Interim Director

Melissa Abeyta, Center Coordinator

The Corky McMillin Center for Real Estate, part of the Fowler College of Business at SDSU, has a history, tradition, and commitment to teaching real estate. The program began in 1958 and continues to produce real estate graduates who are ready on day one. In order to contribute to the education of the next generation of real estate leaders, the McMillin family, along with HG Fenton, Cassidy Turley, and Cornerstone Communities, generously decided to give back and support real estate education by forming the Corky McMillin Center for Real Estate. The center provides students with excellent opportunities to engage with real estate professionals and participate in supplemental education sessions such as Argus training, CoStar, Excel modeling, and Yardi. For more information, please contact the center at realestate@mail.sdsu.edu.

Corporate Governance Institute (CGI)

Lori Verstegen Ryan, Director

The Corporate Governance Institute (CGI) is an education and research center dedicated to the study and application of responsible corporate governance principles worldwide. Founded in 1998, the mission of the CGI is to enhance the skills of corporate directors, investors, and senior executives by developing innovative curriculum, fostering cutting-edge research, and offering influential practitioner education. CGI programs focus on identifying and applying ethical corporate governance practices and are guided by the principle that corporate leaders have a primary duty to ensure the financial viability of the organizations that they manage.

CGI was a first-mover in the development and delivery of a dedicated corporate governance course to MBA students in 1999, followed by a required corporate governance course for all Executive MBA students in 2007. For more than a decade, CGI has held dedicated symposia and annual research events for an international network of corporate governance scholars. The institute also offers lectures and panels for students, faculty, and the public, featuring such prestigious corporate executives, directors, and investors as the CEOs of Home Depot and Allergan Inc.; chairmen of the boards of CVS Caremark, Hewlett-Packard, Allergan Inc., and Chesapeake Energy; and Relational Investors founders David Batchelder and Ralph Whitworth.

For more information concerning CGI's programs, e-mail CGI@SDSU.edu, call 619-594-5314, or visit <http://business.sdsu.edu/cgi>.

Institute for Inclusiveness and Diversity in Organizations (IIDO)

Beth G. Chung, Director

The purpose of the Institute for Inclusiveness and Diversity in Organizations (IIDO) is to support the development of knowledge and competencies needed to manage a more diverse workforce in a global business environment. Diversity is viewed here in broad terms, incorporating age, ethnicity, disability, sexual orientation, culture, and nationality. Both the changing nature of the work force and the global challenges faced by organizations point to the value of researching inclusion and diversity issues. This information deepens the body of knowledge about organizational diversity for management scholars, presents needed information to the business community, provides research opportunities for faculty, and offers educational opportunities for students. Founded in 2006, the IIDO seeks to accomplish these goals by: (1) conducting survey research that investigates the impact of organizational diversity and globalization, with the goal of improving organizational effectiveness; (2) cultivating mutually beneficial relationships with organizations (private sector, public sector, and nonprofit) that support the goals of optimizing human resource management and development in a diverse and interconnected world; and (3) contributing to the education of students, employees, managers, and executives to prepare them for roles in an increasingly diverse and global world. The IIDO also seeks to create research partnerships among faculty at SDSU and at other universities to enhance the knowledge base on inclusion, and to increase the international reputation and visibility of the Fowler College of Business among scholars and the business community. For further information, contact the IIDO at 619-594-2699, Beth.Chung@sdsu.edu, or at <http://business.sdsu.edu/iido>.

Lavin Entrepreneurship Center

Alex F. DeNoble, Executive Director

Bernhard Schroeder, Director, Lavin Center Programs

The Lavin Entrepreneurship Center serves students and startup companies that contribute to the emerging growth sector of the regional business community. The mission of the Lavin Center is to develop educational and experiential programs and research focused on best practices that promote entrepreneurship and innovation at the individual and organizational levels.

The range of entrepreneurial programs offered includes:

1. mentorship and advisory support to help students acquire the tools and skills necessary for new venture creation and development;
2. intern programs to provide experiential education for undergraduate and graduate students; and
3. experiential programs, workshops, and competitions to help students foster the creation of startup companies.

The Lavin Center focuses its program development on all areas of the entrepreneurial process including: investor financing, product innovation, management of technology, managing organizational growth, succession planning, leadership, talent management, branding and positioning, social media marketing, and estate planning.

The Lavin Center sponsors and creates a myriad of programs and events at San Diego State University aimed at the campus population:

- LaunchIn, featuring an entrepreneur panel and 50 startups on the campus hiring students;
- LeanModel Competition, start-up global business model university competition;
- California Entrepreneurship Educators Conference, bringing thought leaders together to further entrepreneurship;
- QUALCOMM Social Entrepreneur Internship program; students helping non-profits;
- Venture Capital Investment Competition, preparing students for venture based activities;
- WebCompass, an undergraduate internship building websites for local companies;
- L. Robert Payne Distinguished Entrepreneur Lecture Series;
- VentureStart Competition, on campus business model competition for all SDSU students;
- Lavin Entrepreneurs, a two-year undergraduate cohort with mentoring by entrepreneurs;
- Entrepreneur Day, yearly campus wide celebration of SDSU student entrepreneurs;
- Entrepreneurs Study Abroad; melding courses, students, and entrepreneurs in international settings.

For further information, contact the Lavin Entrepreneurship Center in the Engineering and Interdisciplinary Sciences Complex, Suite 103, 619-594-2781, and at <http://lavincenter.sdsu.edu>.

College of Education

Administration

Dean: Y. Barry Chung

Associate Dean: Nadine S. Bezuk

Assistant Dean for Student Affairs: Patricia Lozada-Santone

Assistant Dean for Special Projects: Tanis K. Starck

Doctoral Programs: Joanne Lobato, James M. Marshall,
J. Luke Wood

Manager of Budget and Analysis: Julie A. White

Manager of Office of Student Services: Lisa F. McCully

Operations and Support Services Analyst: Elsa Tapia

Research Centers and Institutes

Center for Counseling and School Psychology

Brent A. Taylor, 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 Equity and Biliteracy Education Research (CEBER)

Cristina M. Alfaro, Karen Cadiero-Kaplan, Alberto M. Ochoa,
Co-Directors

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

Center for Excellence in School Counseling and Leadership (CESCaL)

Patricia A. Hatch, Executive Director

The Center for Excellence in School Counseling and Leadership (CESCaL) seeks to educate, collaborate, deepen understanding of, and improve partnerships between school counselors and administrative teams, graduate programs, and professional associations. The mission of CESCaL is to promote excellence in the field of school counseling and to assist school counselors, and their site and central office administrators, as they design, implement, and evaluate their school counseling programs. CESCaL provides training and consultation from state and national leaders in school counseling and administration with experience in implementing evidence-based practices and the ASCA National Model® for school counseling programs. CESCaL seeks to resolve critical issues that impede the operational efficiency, institutional legitimacy, and political social capital within the profession of school counseling. The center's website at <http://www.cescal.org> disseminates exemplars for educator use as a service to school counselors, school counselor educators, and administrators who supervise school counselors.

Center for Family, School, and Community Engagement

Karen S. Myers-Bowman, Director

The Center for Family, School, and Community Engagement was established to link the university to the educational pathways of children from "cradle through college." The center's mission is to build the capacity of families, educators, and community partners to advance the education of children together by providing (1) platforms for engaging in collaborative problem solving; (2) leadership development for parents and educators to work together; and (3) through new research that shines a light on partnership practices to support the healthy development and school success of children. Improving educational outcomes for children in our communities is the shared responsibility of families, educators from preschool through the college years (P-16), and their communities. The center promotes partnership approaches that engage all stakeholders to advance practical solutions and actions to ensure healthy development and academic success for all children across the continuum from birth, through each level of schooling, college, and career.

Center for Research in Mathematics and Science Education (CRMSE)

Randolph A. Philipp, Director

William C. Zahner, Associate 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 was established in the College of Sciences in 1986 and became an interdisciplinary center with the College of Education in 1987. The center currently has members from the faculties of biology, dual language and English learner education, mathematics and statistics, physics, psychology, and teacher education. CRMSE is administered by a director and an associate director, who are appointed by the deans of the Colleges of Sciences and Education, in consultation with CRMSE members. Through its activities, CRMSE initiates, encourages, and supports the scholarly pursuit of important theoretical and applied problems in mathematics and science education. CRMSE supports faculty in their current research projects and in the preparation of manuscripts for publication and grant proposals for continued research. The center houses the Doctoral Program in Mathematics and Science Education (MSED) that is offered jointly by SDSU and the University of California, San Diego. It also houses the Professional Development Collaborative to serve area teachers.

The main office of the center is located at 6475 Alvarado Road, Suite 206, San Diego, CA 92120-5013. For more information, contact 619-594-1579. The center may also be reached via campus Mail Code 1862 and at <http://crmse.sdsu.edu>.

Center for Social Equity Technical Assistance

Alberto M. Ochoa, Director

The center conducts training and research on issues of social equity and bilingual/multicultural policy, and provides technical assistance to districts throughout southern California. The center 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 SDSU Department of Dual Language and English Learner Education.

Center for the Study of International Education

Patricia Lozada-Santone, Sarah Maheronnaghsh, Jacki Booth,
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.

Center for Teaching Critical Thinking and Creativity

Luke S. Duesbery, Director

The Center for Teaching Critical Thinking and Creativity (CTCTC) advances performance and productivity in diverse communities by enhancing critical and creative thinking in schools. The center collaborates with teachers to develop and evaluate applications of research on critical and creative thinking applied to rigorous content and supported by appropriate technologies. CTCTC supports teachers' continued development of their own expertise while taking advantage of their knowledge, skills, and experience in assessing effects on students' critical thinking, creative productivity, and academic performance.

Interwork Institute

Caren L. Sax, Director

Interwork 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 has the following six centers:

- 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.
- The Minority Male Community College Collaborative (M2C3) was established with a grant from the SDSU President's Leadership Fund. The goal is to partner with community colleges across the U.S. to enhance access, achievement, and success among minority male community college students. M2C3's research and practice agenda prioritizes men who have been traditionally underrepresented and undeserved in postsecondary education.
- The Center for Pacific Studies (CPS) provides research, training, and technical assistance services in partnership with institutions of higher education, government agencies, and non-profit organizations in the following Pacific Island jurisdictions: American Samoa, Republic of the Marshall Islands, Federated States of Micronesia, Territory of Guam, Commonwealth of the Northern Marianas Islands, Republic of Palau, and the State of Hawaii.

- Circle for American Indian Rehabilitation (CAIR) is devoted to the continuing education, training, and technical assistance needs for programs funded through American Indian Rehabilitation Service Projects (Section 121 of the Rehabilitation Act).
- The Collaborative for Distance Learning (CDL) provides the technology and instructional design support for all Department and Interwork activities. This has been in operation since 1993 when initial funding was received from the US Department of Education.
- The Exceptional Family Resource Center (EFRC) was initially developed under the Department of Special Education. It was transferred to the Interwork Institute in 2006. They have been serving individuals and families of children with disabilities and the professionals who assist them throughout San Diego and Imperial Counties since 1990.

The Interwork Institute's facilities are located at 6367 Alvarado Court, Suite 350. For more information, visit the website at <http://interwork.sdsu.edu>.

National Center for Urban School Transformation (NCUST)

Joseph F. Johnson, Executive Director

The National Center for Urban School Transformation (NCUST) helps school districts transform urban schools into places where all students achieve academic proficiency, evidence a love of learning, and graduate prepared to succeed in post-secondary education, the workplace, and their communities. The center pursues this mission through the following strategies:

- Strategy 1: Identify, celebrate, and study urban schools and districts that are transforming teaching and learning, as evidenced by excellent learning results for all students;
- Strategy 2: Engage in focused, long-term partnerships that support urban school districts as they endeavor to create model, high-performing schools;
- Strategy 3: Disseminate useful information about effective strategies to transform urban schools.

NCUST staff members develop articles, reports, book chapters, and books that feature information learned through both Strategies 1 and 2. The center supports SDSU doctoral students in educational leadership and SDSU faculty as they pursue research designed to deepen the knowledge base concerning high-performing urban schools. The NCUST website (<http://www.ncust.org>) is a nationally known source of information about effective strategies for transforming urban schools.

Pre-College Institute (PCI)

Cynthia D. Park, Executive Director

The SDSU Pre-College Institute (PCI) promotes college access and completion for underserved students, implements innovative programs to enhance excellence in teaching and learning in multicultural settings, and studies their outcomes. Founded in 1983, PCI provides an invaluable service to our communities' multicultural low-income, underrepresented, and underserved students. The faculty and staff of PCI believe that students can achieve their potential by enrolling in and completing a postsecondary program of their choice. Through multiple federally funded grants, our students receive academic advising, mentoring, personal and financial counseling, personalized college preparation, summer supplemental instruction, and tutorial assistance throughout their high school career. The institute, operating from the university's historic strength in teacher education and its proximity to Mexico, works closely with parents, principals, school counselors, teachers, and SDSU undergraduates to decrease the achievement gap between high- and low-performing schools. The institute supports continuous growth of its faculty and staff through a systematic professional development program.

The institute also offers services through its partnerships with the City Heights Educational Collaborative, the Division of Academic Engagement and Student Achievement, Office of Financial Aid and Scholarships, and the Colleges of Sciences and Health

and Human Services. The Pathways Office, through a partnership with PCI, the College of Education, and the Office of Financial Aid and Scholarships, provides current SDSU students with a service-learning opportunity to work as tutors at our partner school sites to provide in-class and afterschool tutoring. Tutors enroll in Education 201 and/or Teacher Education 362. Many of our tutors are interested in pursuing a career in teaching or education. The Pathways Office tutors are near-peer leaders and often serve as mentors to the students they tutor. The office recruits and trains approximately 120 volunteer and work-study eligible students per academic year. America Counts tutors work with middle and high school students on mathematics and science. America Reads tutors promote early literacy for kindergarten through third grade. All tutors attend tutor training and participate in monthly professional development seminars.

For more information, please access our website at <http://pci.sdsu.edu/education/pci>.

San Diego State University Literacy Center

Katherine Scierba, Director

The SDSU Literacy Center supports collaborative partnerships that serve a variety of diverse literacy needs in our community including assessment and tutoring in reading and writing for children, adolescents, and adults; workshops for parents to promote family literacy; professional education for teachers through coursework and institutes; and, research to inform teaching practice and effect systemic change in literacy education. The center houses the Community Reading Clinic. Credentialed teachers enrolled in graduate reading, Reading and Literacy Added Authorization, and Reading and Literacy Leadership Specialist credential programs, as well as professional staff, conduct tutoring and assessments. Professional development for reading recovery teacher leaders occurs at the center, and institutes are planned for reading recovery and elementary teachers in the community. Literacy center faculty members engage in research on effective instruction in reading and writing, teacher practices, and early intervention. The SDSU Literacy Center is located in City Heights in the Dede Alpert Center for Community Engagement, San Diego State University, 4283 El Cajon Blvd., Suite 200, San Diego, CA 92105. For more information, visit <http://edweb.sdsu.edu/literacy/>.



College of Engineering

Administration

Dean: Eugene A. Olevsky (Interim)

Associate Dean for Graduate Studies and Research:

Eugene A. Olevsky

Assistant Dean for Student Affairs: Theresa M. Garcia

Research Centers and Institutes

Center for Industrial Training and Engineering Research (CITER)

Gustaaf B. Jacobs, Director

The Center for Industrial Training and Engineering Research (CITER) structures and enhances collaboration between industrial partners and SDSU. The primary objective is to connect SDSU engineering departments, faculty members, undergraduate, and graduate students with engineers and staff scientists of local industry. For more information, visit <http://citer.sdsu.edu/citer>.

Center for Renewable Energy and Energy Efficiency (REEE)

Asfaw Beyene, Director

The Center for Renewable Energy and Energy Efficiency (REEE) 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. For more information, visit <http://reee.sdsu.edu>.

Communication Systems and Signal Processing Institute (COSSPI)

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. For more information, visit <https://electrical.sdsu.edu/COSSPI.php>.

Concrete Research Institute

Mohamad 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. For more information, visit <http://www.engineering.sdsu.edu/research/institutescenters.aspx>.



College of Health and Human Services

Administration

Dean: Steven P. Hooker

Associate Dean for Academic Affairs: Larry S. Verity

Associate Dean for Research: Mark B. Reed (Interim)

Assistant Dean for Student Affairs: Jason Ramirez (Interim)

International Programs Coordinator: Roxanne Riedel

Research Centers and Institutes

Academy for Professional Excellence

Jennifer Tucker-Tutlow, Director

The Academy for Professional Excellence, administered through the School of Social Work, was established in 1996 with the mission to provide quality training and organizational support to health and human services agencies in the Southern California region including the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura. The goal of the academy is to have university faculty and staff available to public and private health and human services agencies in the region by providing coaching, community building (classroom, field-based, online), curriculum development, organization development services, leadership development, training, and training evaluation. The academy develops competency-based curriculum on select topics for health and human services agencies in the region, provides quality training to service providers and administrators employed in health and human services agencies, engages in research and evaluation to improve the quality, accountability, and responsiveness of health and human service agencies, and develops executives in the Southern California region who will have the experience, knowledge, and skills to effectively guide organizational change and development. The academy has extensive experience managing contracts with multiple partners and organizations/agencies. The academy manages an annual operating budget of over six million dollars, comprised of multiple grants and contracts from local, federal, state governments, and private foundations.

The academy is located at 6505 Alvarado Road, Suite 107, and can be reached at 619-594-3546 or at <http://pcwta.sdsu.edu>.

Center for Alcohol and Drug Studies and Services

Susan I. Woodruff, Director

The Center for Alcohol and Drug Studies and Services is a project of SDSU's School of Social Work. Originally named the Center on Substance Abuse, the center was established in 1985 to address alcohol and other drug-related problems at San Diego State University and in the larger community. The center specializes in research and evaluation design with an emphasis on socio-behavioral research and applied evaluation and is an umbrella organization for several alcohol and drug-related research initiatives, including the SDSU Driving Under the Influence Program, which provides education and counseling services for court-ordered offenders in the central judicial district of San Diego County. Over the past decade, the center has received numerous federal, state, and county grants and contracts from sponsors that include NIH, NIDA, NIAAA, Robert Wood Johnson Foundation, SAMHSA, and the Department of Defense. Our multi-disciplinary researchers have decades of experience in research and evaluation and are highly committed to scientific excellence. The center is located at 6386 Alvarado Court, Suite 224, 619-229-2340. We invite you to learn more about us through our website at <http://www.centerforaod.sdsu.edu>.

Center for Behavioral Epidemiology and Community Health (CBEACH)

Melbourne F. Howell, Director

Administered through the Graduate School of Public Health, CBEACH was established for the purpose of promoting research to study behaviors that prevent or contribute to the causes 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 behaviors – 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. CBEACH conducts scientific investigations into the following broad areas: behavioral epidemiology, measurement, and interventions (clinical and community-based).

For more information, visit <http://www.cbeachsdsu.com>.

Center for Research on Sexuality and Sexual Health (SASH)

Eric Buhi and Heather L. Corliss, Co-Directors

Administered through the Graduate School of Public Health, the Center for Research on Sexuality and Sexual Health (SASH) contributes to the mission of SDSU by helping to advance and extend knowledge, learning, and culture related to sexuality and sexual health; provides opportunities for individuals to develop intellectually, personally, professionally; and prepares significant numbers of educated, responsible people to contribute to California's communities, culture, economy, future, and schools. SASH provides a quality, well-balanced education for undergraduate and graduate students, contributes knowledge and solutions to problems related to sexuality and sexual health through excellence and distinction in research, service, and teaching.

For more information, visit <http://publichealth.sdsu.edu/sash/>.

Consensus Organizing Center (COC)

Jennifer M. Cosio, Director

The Consensus Organizing Center is administered through the School of Social Work. The COC'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 community leaders, foster youth, high school students, and social workers. Specific activities include developing a fellowship program for high school students and providing employment opportunities for undergraduate and graduate students, as well as training to the public in San Diego and throughout the nation. The COC has maintained a pledge to support community-based learning by training a select handful of highly qualified SDSU social work interns in the consensus organizing model and placing them in the San Diego community. Under the direction of Director Jennifer M. Cosio, the COC remains a strong influence in the San Diego community and has developed several successful initiatives using the consensus organizing model.

The center can be contacted at 619-594-4813 or at <http://www.consensus.sdsu.edu>.

Heart Institute

Christopher C. Glembotski, Director

The Heart Institute is sponsored by the College of Health and Human Services and the College of Sciences. The goals of the institute are to enhance basic and clinical research in the cardiovascular sciences, to foster undergraduate and graduate education in cardiovascular physiology and medicine, and to provide a community outreach service focused at heightening the awareness of cardiovascular disease and its prevention in the San Diego region surrounding SDSU. The institute is comprised of faculty members representing four different colleges at SDSU, as well as physicians and scientists from local hospitals and clinical research centers. Importantly, the institute also sponsors SDSU undergraduate and graduate student memberships, which strengthens the involvement of students in all aspects of Heart Institute activities.

The unusual blend of talent and expertise that comprise the institute membership results in an interdisciplinary approach to cardiovascular research, education and community outreach that is unique to the Heart Institute. The institute sponsors special seminars, on- and off-campus, which cover a wide range of topics in the field, and provides funding for the support of graduate students who are involved in cardiovascular research at SDSU. Areas of focus for the institute include studies of the molecular basis of cardiovascular disease, establishment of unique approaches for the early detection and prevention of cardiovascular disease, and the promotion of cardiovascular health in San Diego area K-12 schools. An important feature of these efforts that distinguishes the Heart Institute is the central role that SDSU students play in each of these areas. Funding for Heart Institute activities comes from a variety of sources, including the National Institutes of Health, the American Heart Association, the Muscular Dystrophy Association, the Rees-Stealy Research Foundation, and several San Diego-based biotechnology companies. For more information, contact the Heart Institute office at 619-594-5504 or at <http://www.bio.sdsu.edu/heart/sdsuhome.htm>.

Institute for Behavioral and Community Health (IBACH)

Guadalupe X. Ayala, Director

Administered through the Graduate School of Public Health, IBACH, formerly known as the Center for Behavioral Medicine, was established in 1982 for the purpose of promoting research and academic programs relevant to the application of behavioral science principles to medicine and health care. IBACH's current mission is to identify determinants of Latino and other health disparities and intervention approaches that address these determinants. IBACH has 27 investigators from the College of Health and Human Services (Graduate School of Public Health, Exercise and Nutritional Sciences), College of Sciences (Psychology), and the Fowler College of Business (Marketing). It has two centers, the South Bay Latino Research Center and the Center for Research on Sexuality and Sexual Health. Strong research and teaching partnerships have been established with the UCSD School of Medicine, the Department of Pediatrics – Division of Child Development and Community Health, the Department of Family and Preventive Medicine, and Moores Cancer Center. Additional collaborations include Clinicas de Salud del Pueblo, Inc., Healthy Eating and Active Communities, San Ysidro Health Center Scripps Institute, Scripps Whittier Diabetes Institute, Inc., and WalkSan Diego. Funding comes from the National Institutes of Health (NCI, NICHD, NIDDK, NHLBI, NINR), Centers for Disease Control and Prevention, Patient Centered Outcomes Research Initiative, Robert Wood Johnson Foundation, American Cancer Society, Dentaquest Foundation, Howell Foundation, and Kaiser Family Foundation. The institute provides important research experiences to trainees at all levels who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community-based work. IBACH offices are located at 9245 Sky Park Court, Suite 221, San Diego, CA 92113; additional sites are in Imperial County (Calexico and El Centro) and Chula Vista. For more information about IBACH, please visit our website at <http://ibachsd.org>.

Institute for Public Health (IPH)

Suzanne P. Lindsay, Director

Administered through the Graduate School of Public Health, the mission of the IPH 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 epidemiology, biostatistics, health promotion and behavioral science, occupational and environmental health, maternal and child health, health services management and policy, and global/border health. 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. Visit the institute online at <http://iph.sdsu.edu/>.

Sharp Healthcare Professional Education and Research Institute

Marilyn Newhoff, Director

The institute serves to create a focus for excellence in healthcare education and research, advancing theory and practice in health services. Researchers conduct relevant healthcare research; clinical internships are provided, including in the Sharp Healthcare environment, to talented and promising future healthcare employees; guest lectures, seminars, and workshops are sponsored on emerging healthcare topics; and doctoral projects addressing critical issues in Sharp Healthcare and beyond foster mentoring and advanced applied clinical practice.

Social Policy Institute

Steve D. Hornberger, Director

Administered through the School of Social Work, the mission of the institute is to assist local, regional and state public and private sector leaders in the development of policies and programs that focus on family and community well-being. The institute is particularly focused on efforts that impact social determinants of health and reduce adverse outcomes for vulnerable communities, families, and individuals. To that end, we assist in identifying community strengths, needs, outcomes of care, program design, quality, as well as catalyzing and convening community leaders. The institute is particularly interested in innovative efforts that are collaborative, data driven, inclusive, and sustainable. The institute has prepared a training manual and CD-ROM for home visitors and case managers working with vulnerable families and has conducted community needs assessments surveys in Baja California Sur for the purpose of policy and program development. A computerized information system to provide decision and evaluation support to human services agencies has been developed and is available through the San Diego State University Research Foundation Technology Transfer Office.

For more information, visit <http://socialwork.sdsu.edu/research/research-centers-institutes/social-policy-institute>.

South Bay Latino Research Center (SBLRC)

Gregory A. Talavera, Director

Administered through the Graduate School of Public Health, the South Bay Latino Research Center (SBLRC) serves as the community-based site for research activities. SBLRC Director, Dr. Gregory A. Talavera, has received numerous grants to study Latino health disparities including serving as the principal investigator of the Hispanic Community Health Study/Study of Latinos (HCHS/SOL).

For more information, visit <http://sandiegohchssol.blogspot.com/>.

University Center on Aging

Anita S. Harbert, Director

The University Center on Aging is administered by the School of Social Work. 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.

Learn more about the center at <http://socialwork.sdsu.edu/coa>.

The center can be contacted at 619-594-4813 or at <http://www.consensus.sdsu.edu>.

College of Professional Studies and Fine Arts

Administration

Dean: Joyce M. Gattas

Associate Dean: Donna M. Conaty

Assistant Dean for Student Affairs: Alane S. Lockwood

Senior Director of Development: Mary Darling

Director of International Programs: Giancarlo Taylor

College Communications Officer: Christianne Penunuri

Arts Alive SDSU

Arts Alive SDSU is a campus-wide arts visibility initiative that provides opportunities for students, faculty, and staff to engage in transformational arts interactions as part of an arts-rich, robust educational community on the campus of San Diego State University. Arts Alive SDSU's primary goals are to broaden awareness of arts events and programming, increase attendance at arts events, expand academically informed art-making opportunities, and integrate arts events and arts practices into curriculum. Pop-up performance and gallery events take place at the Farmers' Market, Art Under the Dome at the library, and the Conrad Prebys Aztec Student Union, along with a robust social media campaign, provide promotion of signature and supported events in the schools of Art and Design, Music and Dance, and Theatre, Television, and Film. Arts Alive SDSU develops and expands interdisciplinary curriculum opportunities by serving as a nexus for faculty interested in cross-disciplinary dialogue and collaboration. Visit the website at <http://artsalive.sdsu.edu> for additional information.

Research Centers and Institutes

Center for Hospitality and Tourism Research

Carl Winston, Director

The Center for Hospitality and Tourism Research is an education and research center dedicated to the study and application of professional principles in the broad field of hospitality and tourism. The mission of the center is to enhance the skills and knowledge of professionals and students in the field of hospitality and tourism management through the creation and delivery of initiatives in executive development, research, and curriculum innovation.

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

Contact the center in Professional Studies and Fine Arts, Room 436, or at 619-594-4964, or visit the website at <http://htm.sdsu.edu/web/index.php/centers>.

Center for Learning, Instruction, and Performance Technologies

Marcie J. Bober-Michel, Director

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

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

Center for Science and Media

Bey-Ling Sha, Director

A collaboration of the School of Journalism and Media Studies, the College of Professional Studies and Fine Arts, and the College of Sciences, the Center for Science and Media strives to educate the public about science, through the strategic and ethical use of media. The Center offers public lectures, crisis communication training, opportunities for research collaborations, and a writing course for science majors to learn how to communicate science information and scientific findings to lay audiences via the news media.

Center for the Study of Women in Television and Film

Martha M. Lauzen, Director

The Center for the Study of Women in Television and Film is the nation's first program dedicated solely to the study and discussion of women's representation on screen and behind the scenes in television and film. The purpose of the center is to (1) engage students, faculty, and individuals working in the industry in an on-going discussion regarding the portrayals of girls and women in television and film and women's employment behind the scenes; (2) heighten the profile of women's representation in television and film as a public policy issue and concern; (3) train the next generation of scholars to analyze media images of women, and; (4) conduct an expanded agenda of original research on women's representation in television and film that has both practical and theoretical import.

To learn more, visit <http://womenintvfilm.sdsu.edu>.

Center for Surf Research

Jess Ponting, Director

The Center for Surf Research is the first of its kind in the world. The center responds to the challenges of a rapidly expanding surfing industry and the broadening horizons of surf tourism and its impact on peoples, environments, and economies along the coastlines of more than 100 countries. Housed in the L. Robert Payne School of Hospitality and Tourism Management, the center engages with the surf industry and surf tourism industry to create a cutting edge research agenda; disseminates specialist knowledge to governments, the surf industry, tourism developers, destination communities, non-profits, and tourists; shapes responsible global citizens through life-changing experiential learning opportunities and study abroad programs; and, inspires active stakeholder engagement with the social and economic development of destination communities, the sustainable use of their resources, and the conservation of their critical environments. For more information, visit the website at <http://csr.sdsu>.

Conrad N. Hilton Foundation Volunteer and Mentorship Center

The Conrad N. Hilton Foundation Volunteer and Mentorship Center is an endowed center that connects hospitality and tourism management (HTM) students to numerous volunteer and mentoring opportunities throughout San Diego.

Housed in the L. Robert Payne School of Hospitality and Tourism Management, the center engages with area high schools to provide learning opportunities for under-served youth. These range from supervised one-on-one mentoring by HTM students to the high school students, to an annual one-day educational conference managed and produced by the center. These programs shape responsible citizens through life-changing experiential teaching and learning opportunities and inspire active engagement with the social and economic development of San Diego. Visit the website at http://htm.sdsu.edu/web/index.php/students/volunteer_mentorship_center for more details.

Glen M. Broom Center for Professional Development in Public Relations

Bey-Ling Sha, Director

Housed in the School of Journalism and Media Studies, the Glen M. Broom Center for Professional Development in Public Relations facilitates professional development of students via internship support, of faculty via research support, and of public relations practitioners via support for their life-long learning. Launched in 2013 in honor of long-time public relations professor Dr. Glen M. Broom, the Center hosts international visiting scholars in public relations, offers training sessions for practitioners preparing for the Accredited in Public Relations examination, and houses the prestigious *Journal of Public Relations Research*.

Institute for Leisure and Tourism Management

Lawrence A. Beck, Director

The Institute for Leisure and Tourism Management is primarily concerned with conducting leisure-related research, promoting professional development, disseminating specialized publications, and organizing conferences, seminars, lectures, and workshops.

Institute for Meetings and Events

Stephanie Dathe, Director

The Institute for Meetings and Events is focused on education and research dedicated to the application of professional principles in meetings and events. The institute was created to enhance education and knowledge of students and professionals in this discipline. The institute has a global orientation and is guided by an international advisory board composed of the profession's most seasoned and successful leaders. The institute offers symposia, forums, and other education programs to stimulate dialog and discussion on key issues and to create new knowledge in this dynamic and emerging discipline. The institute conducts timely and innovative research as well as benchmarking data for best-practices. The institute involves faculty with expertise in disciplines as diverse as project management, business, public relations, graphic design, theatre, and hospitality. For additional information, contact Stephanie Dathe at sdathe@mail.sdsu.edu.

Institute of Public and Urban Affairs

Mounah Abdel-Samad, Director

The Institute of Public and Urban Affairs is located in the School of Public Affairs. 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. Visit the website at <http://ipua.sdsu.edu/> for additional information.

The Investigative Newsource

Lorie Hearn, Executive Director

Investigative Newsource is housed in the School of Journalism and Media Studies. The institute is an independent, non-profit organization whose mission is twofold: (1) to produce investigative, data-driven journalism that informs the citizens of San Diego and Imperial counties and (2) to help develop the investigative journalists of the future. Through internships and other mentoring opportunities, the institute offers ways to enhance the learning experience of journalism students at San Diego State University. The institute is collaborative, not competitive, and seeks to distribute its work across multiple media platforms – print, broadcast and online – throughout the region. The institute is nonpartisan and does not engage in political advocacy. The website is <http://www.inewsource.org>.

Sycuan Institute on Government Gaming

Katherine A. Spilde, Director

The Sycuan Institute on Government Gaming, in partnership with the Center for Global Gaming Research, is housed in the L. Robert Payne School of Hospitality and Tourism Management. Under the terms of an endowment by the Sycuan Band of the Kumeyaay Nation, the institute has created and introduced an academic curriculum leading to the B.S. in Hospitality and Tourism Management with an emphasis in Tribal Gaming Operations and Management. The institute also produces and funds original academic research related to the legal gambling industry with an emphasis on tribal government gaming. In particular, the institute is dedicated to the development of a professional class of gaming industry experts who understand the unique partnership between host governments and the legal gambling industry. The institute actively engages students, faculty, and industry partners in order to cultivate a professional workforce, develop and document best practices, and share successful gaming innovations. Visit <http://htm.sdsu.edu/web/index.php/centers/sycuan> for details.

The J. Willard and Alice S. Marriott Foundation Student Center for Professional Development

Brian P. Blake, Director

The J. Willard and Alice S. Marriott Foundation Student Center for Professional Development is housed in the School of Hospitality and Tourism Management (HTM). The center provides support for internship programs related to the hospitality industry. It assists HTM students in finding internships and job placement through workshops, focus groups, and continuing conversations with industry leaders. Every HTM student spends two semesters working with the center, and again uses center resources at graduation. This experiential learning builds professional competencies which enhance effectiveness when students enter the workforce. The center serves as a testing ground to determine an individual's competence before hiring as a permanent employee. Visit http://htm.sdsu.edu/web/index.php/students/center_professional_development for more details.

Production Center for Documentary and Drama

Timothy Powell, Director

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

For more information, visit the website at <http://arweb.sdsu.edu/es/admissions/majors/tvfilmnewmediaprod.htm>.

College of Sciences

Administration

Dean: Walter C. Oechel (Interim)

Associate Dean for Academic and Faculty Affairs:

Catherine J. Atkins

Associate Dean for Graduate and Research Affairs:

Tod W. Reeder

Assistant Dean for Student Affairs: Estralita M. E. Martin

Director of College of Sciences Advising: Emilio C. Ulloa

Director of Development: Stacy Carota

Director of Resource Management: Tony P. Carrasco

Research Centers and Institutes

Center for Behavioral Teratology (CBT)

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 as well as the study of other birth defects and disorders. 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.

Center for Energy Studies (CES)

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 greater San Diego 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 CES 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. The CES is closely integrated with the environmental sciences program, which offers a Bachelor of Science degree through the College of Sciences and the recently established SDSU Center for Regional Sustainability. The CES 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.

For more information call the CES at 619-594-1354.

Center for Microbial Sciences

Anca M. Segall, Director

Stanley R. Maloy, Associate Director

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

The center encourages multidisciplinary scientific research by bringing together a group of creative, cooperative investigators

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

The primary goals of the center are: Research – To attract a group of imaginative, interactive investigators and provide a stimulating environment for productive, innovative research in microbial biology; Training – To train a new generation of scientists to solve important problems in microbial biology using innovative experimental approaches; Outreach – to provide expertise and facilities for visiting scientists from academia and industry to learn new technologies.

Find out more about the center by visiting the website at <http://www.sci.sdsu.edu/~smaloy/CMS/>.

Center for Regulatory Science

Catherine J. Atkins, Interim Director

Lorah W. Bodie, Associate Director

The Center for Regulatory Science focuses on education and training related to the research, development, manufacture, commercialization, and post-marketing surveillance of pharmaceutical, biological, and medical device products regulated by the FDA and its international counterparts. The center's programs address the over-arching legal, ethical, and regulatory requirements for biomedical products. Programs provide students with the broad-based skills required by biotechnology companies as their initial product development projects progress from research and development into clinical research, process development, manufacturing, and beyond.

The Master of Science degree in regulatory affairs was the first program developed and offered by the center. Other offerings include an advanced certificate in regulatory affairs and an advanced certificate in intellectual property and regulatory affairs, offered in partnership with the University of San Diego School of Law.

Online e-learning technologies are used to make the center's education and training programs widely available to individuals outside of the San Diego region. Flexible learning options are designed to accommodate the busy work and travel schedules of industry professionals. The center is attuned to national and regional economic and workforce development issues, and interfaces with the California State University Program for Education and Research in Biotechnology (CSUPERB). Additional information is available from the Center for Regulatory Science office, 619-594-6030, <http://regsci.sdsu.edu>.

Center for Research in Mathematics and Science Education (CRMSE)

Randolph A. Philipp, Director

William C. Zahner, Associate 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 was established in the College of Sciences in 1986 and became an interdisciplinary center with the College of Education in 1987. The center currently has members from the faculties of biology, dual language and English learner education, mathematics and statistics, physics, psychology, and teacher education. CRMSE is administered by a director and an associate director, who are appointed by the deans of the Colleges of Sciences and Education, in consultation with CRMSE members. Through its activities, CRMSE initiates, encourages, and supports the scholarly pursuit

College of Sciences

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 houses the Doctoral Program in Mathematics and Science Education (MSED) that is offered jointly by SDSU and the University of California, San Diego. It also houses the Professional Development Collaborative to serve area teachers.

The main office of the center is located at 6475 Alvarado Road, Suite 206, San Diego, CA 92120-5013. For more information, contact 619-594-1579. The center may also be reached via campus Mail Code 1862 and at <http://crmse.sdsu.edu>.

Clinical and Cognitive Neuroscience Center

Karen D. Emmorey, Phillip J. Holcomb, Tracy E. Love-Geffen, Sarah Mattson, Ralph-Axel Müller, Lewis P. Shapiro, Executive Committee

The goal of the Center for Clinical and Cognitive Neuroscience is to create a framework for SDSU faculty and students to study brain-based language and cognitive processing and its disorders, enhance teaching and research mentoring in clinical and cognitive neuroscience, and to expand SDSU's capability to become a leader in an area that is rapidly developing and essential to understanding human behavior. Additional information is available at <https://slhs.sdsu.edu/ccn/>.

Coastal and Marine Institute (CMI)

Todd W. Anderson, Director

The Coastal and Marine Institute (CMI) promotes marine science research, education, and public service at SDSU. CMI emphasizes research in near-shore coastal ecosystems and is composed of faculty among departments within and outside the College of Sciences. The institute operates the SDSU Coastal and Marine Institute Laboratory (CMIL) located on San Diego Bay, facilitating faculty and student research and fostering interaction and collaboration with other institutions, agencies, and the community. CMIL offers closed-circuit and flow-through seawater, environmentally controlled rooms, a wet lab, analytical lab, equipment room, dive locker, and shop. A large yard for boat storage, equipment storage, and outdoor mesocosms to conduct research is also provided. The institute is administered by a director and an advisory council consisting of faculty members from participating departments, including Biology, Chemistry, Geological Sciences, and the Graduate School of Public Health. Additional information about marine studies is available from the Coastal and Marine Institute director, from the College of Sciences, and from the CMI website: <http://www.sci.sdsu.edu/CMI>.

Computational Science Research Center (CSRC)

José E. Castillo, Director
Andrew L. Cooksy, Paul J. Paolini, Satchi Venkataraman, 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 CSRC provides high performance computing and network support to the faculty in the college of sciences, the college of engineering, and other colleges on campus in need of computational infrastructure support.

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 contacting the CSRC at 619-594-3430 or <http://www.csrc.sdsu.edu>.

Edwin C. Allison Center for Earth System History

Stephen A. Schellenberg, Director

Throughout the history of science, many of the critical breakthroughs in scientific understanding have resulted from cross-disciplinary research. The mission of the Allison Center for Earth System History is to foster this approach across the fields of paleontology, paleoclimatology, geochemistry, sedimentology, and organismal biology. The center seeks to facilitate research designed to improve and disseminate our understanding of global climate change and biodiversity, arguably the two most important topics facing current and future generations. Research materials of past and present faculty 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 and carbonate microsampling systems.

For more information about the center, visit the website at <http://www.geology.sdsu.edu/facilities/allisonctr>.

Heart Institute

Christopher C. Glembotski, Director

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

For more information, contact the Heart Institute office at 619-594-5504 or at <http://www.bio.sdsu.edu/heart/sdsuhome.htm>.

Institute for Behavioral and Community Health (IBACH)

Guadalupe X. Ayala, Director

Administered through the Graduate School of Public Health, IBACH, formerly known as the Center for Behavioral Medicine, was established in 1982 for the purpose of promoting research and academic programs relevant to the application of behavioral science principles to medicine and health care. IBACH's current mission is to identify determinants of Latino and other health disparities and intervention approaches that address these determinants. IBACH has 27 investigators from the College of Health and Human Services (Graduate School of Public Health, Exercise and Nutritional Sciences), College of Sciences (Psychology), and the Fowler College of Business (Marketing). It has two centers, the South Bay Latino Research Center and the Center for Research on Sexuality and Sexual Health. Strong research and teaching partnerships have been established with the UCSD School of Medicine, the Department of Pediatrics – Division of Child Development and Community Health, the Department of Family and Preventive Medicine, and Moores Cancer Center. Additional collaborations include Clinicas de Salud del Pueblo, Inc., Healthy Eating and Active Communities, San Ysidro Health Center Scripps Institute, Scripps Whittier Diabetes Institute, Inc., and WalkSan Diego. Funding comes from the National Institutes of Health (NCI, NICHD, NIDDK, NHLBI, NINR), Centers for Disease Control and Prevention, Patient Centered Outcomes Research Initiative, Robert Wood Johnson Foundation, American Cancer Society, Dentaquest Foundation, Howell Foundation, and Kaiser Family Foundation. The institute provides important research experiences to trainees at all levels who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community-based work. IBACH offices are located at 9245 Sky Park Court, Suite 221, San Diego, CA 92113; additional sites are in Imperial County (Calexico and El Centro) and Chula Vista. For more information about IBACH, please visit our website at <http://ibachsd.org>.

Institute for Ecological Monitoring and Management (IEMM)

The Institute for Ecological Monitoring and Management (IEMM) provides a productive, interdisciplinary, and collaborative environment for research directed at developing new approaches, techniques and models for ecological monitoring and management. It engages in applied research that conducts science in service of policy and management, and works to translate science for policy makers and the larger community.

IEMM serves as a nexus to promote inter-department and inter-college research initiatives and facilitates the incorporation of academic and scientific expertise and involvement into relevant restoration, conservation and monitoring projects in the greater San Diego area. Its mission is to create an internationally and nationally recognized research entity. IEMM has three primary goals: research, training, and community service.

Integrated Regenerative Research Institute (IRRI)

Mark A. Sussman, Director

The Integrated Regenerative Research Institute (IRRI) promotes faculty participation and collaboration in research and teaching programs relating to regenerative research on both basic and translational levels in health and disease. The institute: (1) fosters and encourages communication of ideas and information among its membership for mutual professional improvement; (2) attracts students to SDSU for participation in research and teaching programs dealing with regenerative research, and encourages them to adopt affiliation with Institute members and to develop an interdisciplinary understanding of their particular areas of interest in regenerative biology; (3) fosters active, collaborative research programs among Institute members; (4) seeks ways to expand and improve graduate and undergraduate instructional programs relating to regenerative research.

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 at 619-594-5655 or through the Master of Science degree website at <http://www.bio.sdsu.edu/cmb/masters.html>.

Visualization (Viz) Center

Eric G. Frost, Director

The SDSU Visualization (Viz) Center uses computer visualization and communications to bear on societal problems. The Viz Center is focused on processing and providing data sets to the world for humanitarian assistance disaster relief (HADR) events such as earth-quakes, tsunamis, volcanoes, wildfires; as well as poverty, sustainable resources, and first responders in their daily efforts to serve the public. The focus is on being a connecting resource between the campus, community, and the world in bringing together solutions to problems that information technology, imaging, data fusion, visualization, and decision support can assist. The Viz Center develops and deploys tools for homeland security and works closely with many of the homeland security academic and research groups on campus, at the SDSU Research Foundation (SDSURF), and regionally. The Viz Center provides the physical laboratory function for a DHS multi-year, grant-funded project to the SDSURF Regional Technology Center for the assessment of homeland security technologies, governance structures, and data needs on a regional basis. This effort has led to establishment of a national presence as SDSU becomes a leader in addressing homeland security issues. The Viz Center also collaborates with other institutions in Africa, Australia, Canada, Central Asia, China, Indonesia, and Mexico. We interact with companies to help deploy and develop technologies, especially for response to "all hazards" events.

Watershed Science Institute (WSI)

Trent W. Biggs, Director

The Watershed Science Institute (WSI) promotes collaboration among SDSU researchers and communities involved in the management and regulation of land and water resources. The objective of WSI is to improve the integration of science, policy, and management of watersheds by aligning research questions with critical management needs. The regional focus is on Southern California, including San Diego County, Imperial Valley, and the US-Mexico Border region, all of which face critical challenges related to water resources and water quality, drinking water supply shortages, climate change, water quality deterioration, impaired surface water bodies, soil erosion, and coastal contamination. WSI has collaborators across the university, including faculty in biology, civil and environmental engineering, geography, mathematics and statistics, and public health, and is a university-wide institute housed in the Division of Research Affairs. Community

collaborators include the City of San Diego Water Department, San Diego Coastkeeper, San Diego Regional Water Quality Control Board, San Diego River Conservancy, San Diego River Park Foundation, Southern California Coastal Water Research Project, and others. For more information, visit <http://watershed.sdsu.edu>.

Field Stations Program

Paul Ganster, Director

The Field Stations Program provides 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 Stations Program manage almost 9,000 acres of San Diego and Riverside county land for university teaching and research.

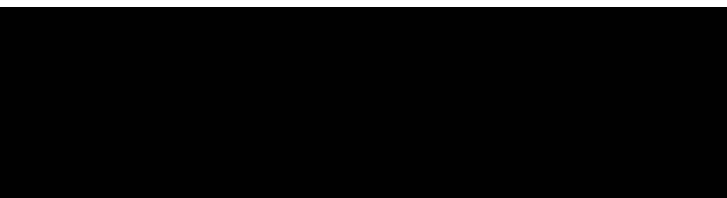
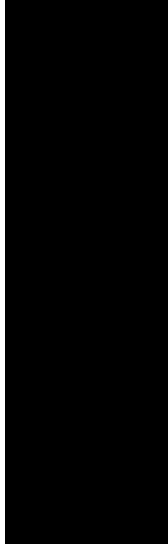
SDSU currently has four field stations: the Sky Oaks Field Station, 1,640 acres of high elevation redshank chaparral habitat in the Chihuahuah Valley east of Temecula Valley; the Santa Margarita Ecological Reserve (SMER), a 4,464 acre reserve located along the upper Santa Margarita River inland from 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 nontraditional study in the fields ranging from public health, civil and environmental engineering, recreation, business, and art, to education.

Persons interested in conducting research, instructional use, or access to the SDSU field stations should contact the academic programs of the SDSU Field Stations Program at 619-594-0580 or through the website at <http://fs.sdsu.edu>.





PART

2

Admission and Registration

Tuition and Fees

Financial Aid and Scholarships

Student Services

Special Programs and Services

Admission and Registration

Admission to San Diego State University for post-baccalaureate and graduate study is open to those applicants judged by the university to be fully qualified. The process is competitive and the requirements listed below are only the **minimum** required for admission to the university. Many programs have established additional requirements. Prospective applicants should refer to the departmental listings in this bulletin. Students are also advised to contact the departmental offices as soon as graduate work is contemplated for advice as to how to proceed. Some departments stop reviewing applications earlier than others because space is limited.

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, **when requested**, submit authentic and recently issued (printed within the last year) 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 may result in denial of admission, cancellation of registration or 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.

Use of Social Security Number

Applicants are required to include their correct social security number 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 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 (IRS) 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.

Schedule Adjustment

The schedule adjustment period allows you to drop a course, add a course, withdraw from the university, and change the grading basis of a course. The schedule adjustment deadline is at 11:59 p.m. on the 10th day from the first day of classes. You are not allowed to make any schedule adjustments after this deadline and are responsible for knowing the current semester's date for this deadline, which can be found on the academic calendar and the *Class Schedule* registration notice. Summer deadlines will vary by session. Consult the *Class Schedule* for specific dates.

CSU Immunization Requirements

Entering CSU students are required to present proof of the following immunizations to the CSU campus they will be attending before the beginning of their first term of enrollment.

Measles and Rubella. All new and readmitted students must provide proof of full immunization against measles and rubella prior to enrollment.

Hepatitis B. All new students who will be 18 years of age or younger at the start of their first term at a CSU campus must provide proof of full immunization against Hepatitis B before enrolling. Full immunization against Hepatitis B consists of three timed doses of vaccine over a minimum 4 to 6 months period. If you need further details or have special circumstances, please consult Student Health Services at 619-594-5281 or visit <http://shs.sdsu.edu>.

Meningococcal Disease Information. 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 contracting the disease and indicating whether or not the student has chosen to receive the vaccination.

The above are not admission requirements, but are required of students as conditions of enrollment in CSU.

Application and Admission Process

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

Graduate and post-baccalaureate students admitted into any admission category must matriculate during their term of admission. An offer of admission cannot be deferred to another term and failure to enroll will result in admission being revoked.

Application Procedures

Applicants for any type of graduate or post-baccalaureate status (advanced degree applicants and those seeking credentials or advanced certificates) must file an electronic CSU Graduate Admission Application available at <http://www.calstate.edu/apply> within the appropriate filing period. All applicants, including those who graduated from San Diego State University are also required to complete and submit an application and the \$55 nonrefundable application fee. Applicants for post-baccalaureate programs are limited to the choice of a single CSU campus on each application. In the event that a post-baccalaureate applicant wishes to be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each campus. All masters, doctoral, advanced certificates, and credential students should consult the department or program listing in the Graduate Bulletin for the specific department and/or program application instructions. In all cases, applicants should send recently issued (printed within the last year) official transcripts from all institutions attended and examination scores to Graduate Admissions only. Students are required to apply online. Online applications are available at <http://www.calstate.edu/apply>.

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

Application Acknowledgment

On-time applicants may expect to receive an acknowledgment from the campuses to which they have applied within two to four weeks of filing the application. The notice may also include a request that applicants submit additional records necessary to evaluate academic qualifications. Applicants may be assured of admission if the evaluation of relevant qualifications indicates that applicants meet CSU admission requirements, and in the case of admission impaction, supplemental criteria for admission to an impacted program. Unless specific written approval/confirmation is received, an offer of admission is not transferable to another term or to another campus.

Admission Requirements

Graduate and post-baccalaureate applicants may apply for a degree objective, a credential or certificate objective, or where approved, may have no program objective. Depending on the objective, the CSU will consider an application for admission as follows:

- **General Requirements.** The minimum requirements for admission to graduate and post-baccalaureate studies at a CSU 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) hold an acceptable baccalaureate degree earned at an institution accredited by a regional accrediting association, or have completed equivalent academic preparation as determined by the graduate dean; (2) have attained a grade point average of at least 2.85 in an acceptable earned baccalaureate degree, or at least 2.85 in the last 60 semester (90 quarter) units attempted, or hold an acceptable post-baccalaureate degree earned at an institution accredited by a regional accrediting association; (3) have been in good standing at the last institution attended; and (4) achieved satisfactory scores on all sections of the GRE or GMAT for degree seeking applicants (not required for credential or certificate applicants).

Applicants who do not qualify for admission under provisions (1) and (2) may be admitted by special action if the graduate dean determines that there is other academic or professional evidence sufficient to warrant such action. Applicants from foreign countries see International (Foreign) Student Admission Requirements. The Division of Graduate Affairs is the only official admissions authority for graduate study at San Diego State University. See the Graduate Bulletin for further details.

Faculty may register for courses in accordance with the Division of Graduate Affairs policies. Faculty holding the rank of instructor and above may be candidates for degrees on this campus. Faculty may not seek degrees or register for courses within their own departments, programs, or schools and retain faculty status in that unit.

Special Action Admissions

Determination of the admissibility of students by special action shall be governed by the following guidelines when applicable. All applicants for admission by special action must submit at least two letters of recommendation from faculty of the institution that awarded the baccalaureate degree.

1. Students holding baccalaureate degrees from accredited institutions that award credit primarily on a pass-fail basis may be considered for admission providing they meet one of the following criteria:
 - a. At least 60 semester units of letter-graded coursework with a minimal grade point average of 2.85 are included on the student transcripts. Half of these must be at the upper division level.

- b. If the student transcripts include less than 60 semester units of letter-graded coursework as described above, the applicant may be considered for admission on the basis of the following two criteria: A satisfactory score on both the verbal and quantitative sections of the GRE or GMAT with a minimum mean score of not less than the 30th percentile in each category, and determination by the appropriate faculty unit at San Diego State University that any written documentation of classroom performance the student submits reflects academic achievement equivalent to at least a grade point average of 2.85. Such documentation should include written coursework evaluations by the faculty of the institution awarding the degree and may include other documentation such as baccalaureate theses, etc. A relative weakness in one of these criteria may be offset by a strong performance in the other.

2. Students holding baccalaureate degrees from accredited institutions that award credit for prior experiential learning may be admitted providing that:
 - a. The student meets the 60-unit requirement as described in 1. above when general admission requirements are not met.
 - b. At least 24 semester units of credit in the major field are awarded for classroom and laboratory study during a period of matriculation at the degree-granting institution.
 - c. The student provides from the institution granting the credit full documentation showing how the experiential learning was evaluated and the basis on which such credit was awarded.

Examination Requirements

The university requires that applicants for admission to advanced degree programs present satisfactory scores on the Graduate Record Examination (GRE) General Test. All sections (Verbal, Quantitative, Analytical Writing) must be completed. GRE scores that are missing any one of the three sections will be considered incomplete and will not be accepted by the university. In addition, some programs require that applicants also submit satisfactory scores on the appropriate GRE subject matter test. Some advanced certificate programs require the GRE. Applicants should consult the program listings for specific information. Applicants for admission to the Fowler College of Business or the Master of Science in Hospitality and Tourism Management may take the Graduate Management Admissions Test (GMAT) or the GRE; students applying for admission to the concentration in Health Management and Policy in the Graduate School of Public Health may submit scores from either the GRE or the GMAT. Students applying for admission to the MSW/JD program will use LSAT scores in lieu of the GRE. Students applying for admission to the MBA/JD program must submit GMAT or GRE scores. GRE, GMAT, and Test of English as a Foreign Language (TOEFL) scores should be sent electronically to San Diego State University (Institutional Code 4682 for GRE and TOEFL, and 9LT-2P-73 for GMAT). Official International English Language Testing System (IELTS) score reports must be mailed directly to San Diego State University. For complete information on the availability of these tests, students or applicants are invited to contact the Testing Services office on campus.

Students who hold advanced degrees from institutions that are members of the Council of Graduate Schools may be exempt from the GRE requirement. Individuals applying for admission to certain graduate programs may petition to waive the GRE General Test or GMAT requirement if the applicant holds a professional doctoral degree from an institution whose professional program is accredited. The waiver must be recommended by the graduate adviser and approved by the graduate dean. The petitioner must demonstrate that the professional degree is integrally related to the degree program to be pursued at San Diego State University. Applicants to doctoral programs must have taken the GRE.

Graduate and Post-Baccalaureate English Language Requirement

All graduate and post-baccalaureate applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum score of 550 or higher (using the paper version) or 80 or higher (using the Internet version) on the Test of English as a Foreign Language (TOEFL). Students must obtain a score of 6.5 or better on the International English Language Testing System (IELTS). Individual degree programs may require a higher minimum score. Applicants may be required by a program to submit a score for the Test of Written English (TWE). Several CSU campuses may use alternative methods for assessing fluency in English including Pearson Test of English Academic (PTE Academic), and the International Test of English Proficiency (ITEP).

Admission Categories

Graduate and post-baccalaureate applicants may apply for a degree objective, a credential or advanced certificate objective, or where approved, may have no program objective. Depending on the objective, the CSU will consider an application for admission as follows:

Post-Baccalaureate Standing (Unclassified)

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

Post-Baccalaureate 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 contact the department or school involved for information concerning specific admission requirements and should submit a departmental application during the appropriate filing period. Admission with post-baccalaureate 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 Fowler College of Business will take the GMAT or GRE).
- Satisfy the special departmental or college requirements as stated in Part Five of the Graduate Bulletin 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 600-, 700-, and 900-numbered courses.

Graduate Standing (Conditionally 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 classified graduate standing may be granted conditionally classified graduate standing, if the deficiencies can be met by specific additional preparation, including qualifying examinations. Students who have not completed the GRE/GMAT requirement and/or the TOEFL/IELTS requirement will not be eligible for conditional admission. Not more than 15 semester units may be assigned to satisfy undergraduate deficiencies in the major

and normally all course conditions must be met within one year (three academic terms: fall, spring, summer) from the time of initial enrollment. Students admitted with conditionally classified graduate standing are admitted to authorized advanced degree curricula and may enroll in 600- and 700-numbered courses. Once the conditions established by the department, school, or college have been met, the student should request that the program graduate adviser file a change of status form with the Division of Graduate Affairs.

Post-Baccalaureate Standing (Conditionally Classified)

A student wishing to be admitted to a program of study leading to a credential in professional education or an advanced certificate program who meets the criteria specified under General Admission Requirements but who has deficiencies for classified post-baccalaureate standing to the department's credential or certificate program may be granted conditionally classified post-baccalaureate standing, if the deficiencies can be met by specific additional preparation, including qualifying examinations. No more than 18 semester units may be assigned to satisfy deficiencies in prerequisite education and subject matter competency coursework and all coursework must be met within one year (three academic terms: fall, spring, summer) from the time of initial enrollment unless written documentation of specific subject matter deficiency can be provided by the designated campus adviser. Once the conditions established by the department, school, or college have been met, the student should confirm that a change of status has been updated through the sponsoring departmental office for cross-campus records.

Continuing Students

Students enrolled in the university with graduate or post-baccalaureate standing who wish to request acceptance into any type of graduate degree or post-baccalaureate status (advanced degree applicants and those seeking credentials or advance certificates) must file an electronic CSU Graduate Admissions application available at <http://www.calstate.edu/apply> during the appropriate filing period. All applicants, including those who graduated from San Diego State University are also required to complete and submit an application and the \$55 nonrefundable application fee. Reports of the scores of the GRE General Test or the GMAT where appropriate must be on file at the university before continuing students may apply for graduate standing (classified).

Second Bachelor's Degree

San Diego State University is only accepting applications for a second bachelor's degree in nursing. For additional information and a listing of admission requirements, please refer to the General Catalog.

Second Master's or Doctoral Degree

A student desiring to work on a second master's or doctoral degree must petition the Graduate Council for permission to enter a curriculum leading to the second degree. Students must reapply to the university if they have completed a master's or doctoral degree if they choose to pursue a second degree program.

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 or desired programs or admission categories are closed. 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 elective credit, students should consult their San Diego State University academic adviser to determine how such courses may apply to their specific degree programs before enrolling at the host campus.

The academic calendar 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.

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 Fully Online Courses

Matriculated students in good standing may request enrollment in one course per term, offered by a CSU host campus. Enrollment requests will be granted based on available space, as well as completion of any stated prerequisites. Credit earned at the host campus is electronically reported to the student's home campus to be included on the student's transcript at the home campus.

CSU Visitor Enrollment

Matriculated students in good standing may enroll on a space available basis 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. Many online courses at CSU campus are available for concurrent enrollment.

Filing of Transcripts

The applicant must arrange to have one set of recently issued (printed within the last year) official transcripts from EACH college or university attended sent to Graduate Admissions. Transcripts should only be requested to be sent AFTER the CSU application has been submitted online. Transcripts requested should include all extension, correspondence, summer session, study abroad, or evening courses.

A transcript will be considered official and accepted to meet the regulations governing admission only if forwarded directly by the institution attended or sent to the student in a sealed and signed 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.

Timely filing of official transcripts is essential. Failure to furnish such records will delay or preclude consideration for admission to post-baccalaureate and graduate study at the university.

Students pending graduation must submit an official transcript verifying completion of an undergraduate degree within the first semester of attendance. Students who fail to submit their final degree transcript will not be eligible to register the following semester. Students who are restricted from registering will be required to reapply for admission. Foreign and domestic students from foreign universities whose undergraduate degrees have not been verified on an official transcript may submit an official letter of completion from the foreign university.

Determination of Residency for Tuition Purposes

University requirements for establishing residency for tuition purposes are independent from those of other types of residency, such as for tax purposes, or other state or institutional residency. These regulations were promulgated not to determine whether a student is a resident or nonresident of California, but rather to determine whether a student should pay university fees on an in-state or out-of-state basis. A resident for tuition purposes is someone who meets the requirements set forth in the Uniform Student Residency Requirements. These laws governing residency for tuition purposes at the California State University are *California Education Code* sections 68000-68085, 68120-68133, and 89705-89707.5, and *California Code of Regulations*, Title 5, Subchapter 5, Article 4, sections 41900-41916. Residency material can be viewed on the Internet by accessing the CSU website at <http://www.calstate.edu/GC/resources.shtml>.

The Office of Admissions is responsible for determining the residency status of all applicants for admission based on the Application for Admission, CSU Residence Questionnaire and, as necessary, other evidence furnished by the student. The Office of the Registrar is responsible for determining the residency status of all continuing students based on the CSU Residence Questionnaire, 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 residency for tuition purposes requires a combination of physical presence and intent to remain indefinitely in the state of California. An adult who, at least 366 days prior to the residency 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 residency for tuition purposes. A minor normally derives residency from the parent(s) with whom he/she resides or most recently resided.

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 a residence 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.

A nonresident student seeking reclassification is required to complete the CSU Residence Questionnaire that includes questions concerning his/her financial independence. Financial independence is required, in addition to physical presence and intent to remain indefinitely, to be eligible for reclassification. Financial independence is established if in the calendar year the reclassification application is made—and in any of the three calendar years preceding the reclassification application—the student:

- Has not and will not be claimed as an exemption for state and federal tax purposes by his/her parent(s);
- Has not and will not receive more than \$750 per year in financial assistance from his/her parent(s); **and**
- Has not lived and will not live longer than six (6) weeks in the home of his/her parent(s).

A nonresident student who has been appointed as a graduate student teaching assistant, a graduate student research assistant, or a graduate student teaching associate on any CSU campus and is employed on a 0.49 or more time basis is exempt from the financial independence requirement.

Non-citizens establish residency in the same manner as citizens, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States.

Exceptions to the general residency requirements are contained in *California Education Code* sections 68070-68085 and *California Code of Regulations*, Title 5, Subchapter 5, Article 4, sections 41906-41906.6, 41910. Whether an exception applies to a particular student can only be determined after the submission of an application for admission and, as necessary, additional supporting documentation. Because neither the 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.

Residency determination dates are set each term.

Semester Term Campuses

Fall: September 20

Spring: January 25

Summer: June 1

CalState TEACH operates on a trimester system. The residency determination dates for CalState TEACH are as follows:

Fall: September 20

Spring: January 5

Summer: June 1

Students classified as nonresidents may appeal a final campus decision within 30 days of notification by the campus. Information on the appeal process may be found at <http://www.calstate.edu/sas/residency/appeals.shtml>. A campus residency classification appeal must be submitted via the InfoReady online Residence Appeal Form to the CSU Chancellor's Office at: <https://calstate.infoready4.com/#competitionDetail/1760156>.

Admission and Registration

Appeals via e-mail, fax, and U.S. mail will not be accepted. A student with a documented disability that prohibits the student from submitting an appeal through the InfoReady site should contact CSU Student Academic Services:

California State University
Attn: Student Academic Services
401 Golden Shore, 6th Floor
Long Beach, CA 90802-4210
E-mail: residencyappeals@calstate.edu

The Chancellor's Office 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 also subject to discipline pursuant to Section 41301 of Title 5 of the *California Code of Regulations*.

Resident students who become nonresidents or who no longer meet the criteria for an exception must immediately notify the Office of the Registrar. Changes may have been made in the rate of nonresident tuition and in the statutes and regulations governing residency for tuition purposes in California between the time this information is published and the relevant residency determination date. Students are urged to review the statutes and regulations stated above.

International (Foreign) Student Admission Requirements

San Diego State University offers opportunities for undergraduate and graduate study to international students whose academic preparation meets the standards for admission. International applicants include those who hold U.S. temporary visas as students, exchange visitors, or in other non-immigrant classifications. SDSU uses separate requirements in the admission of international students. Verification of English proficiency (see section on English Language Requirement for undergraduate applicants), financial resources, and academic performance are each important considerations for admission.

International applicants for any type of graduate or post-baccalaureate status (advanced degree applicants and those seeking credentials or advanced certificates) must file an electronic CSU Graduate Admission Application available at <http://www.calstate.edu/apply> within the appropriate filing period.

Applicants for any type of graduate or post-baccalaureate study at San Diego State University must: (a) hold an acceptable baccalaureate degree from an accredited institution or one approved by a department and/or ministry of education in the host country; or have completed equivalent academic preparation as determined by the graduate dean; (b) have attained a cumulative grade point average of at least 3.0; (c) have been in good standing at all universities attended; and (d) have satisfactory scores on all sections of the GRE or GMAT and TOEFL/IELTS if required. 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.

Applicants who hold completed three-year degrees from a foreign university can be admitted to graduate programs with department approval if they meet the following conditions:

1. The degree is from an accredited institution or one approved by the Ministry of Education in the host country.
2. The degree is verifiable from the student's official transcript;
3. The San Diego State University graduate adviser or department chair makes a strong written recommendation for admission supporting why this student is important to their program and verifying the student has fulfilled preparation for the degree coursework.

All students in this category will be admitted as conditionally classified students with appropriate conditions for being granted classified standing and a deadline by which the conditions must be met that is no later than two semesters after entry to the program. Applicants with three-year degrees in progress at the time of application are not eligible for graduate consideration.

Insurance Requirement: As a condition of receiving an I-20 or DS2019 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 National Association of Foreign Student Advisers (NAFSA). The campus president or designee shall determine which insurance policies meet these criteria. Further information may be obtained from the International Student Center or go to <http://www.sdsu.edu/international>.

American Language Institute: If English instruction is needed prior to admission to SDSU, students may enroll in the American Language Institute (ALI). The ALI offers academic preparation in English language reading, writing, and listening skills necessary for university success.

Housing and Scholarship: Arrangements for housing should be completed well in advance of the student's arrival to campus. Detailed information regarding housing may be obtained from the Office of Housing Administration website at <http://www.sdsu.edu/housing>. Scholarship aid for entering foreign students is limited. All admitted foreign students will be required to provide evidence of funding for a minimum of one academic year.

Upon arrival at SDSU, the student should contact the International Student Center.

Limitation of Enrollment

Admission to the university is limited to the number of students for whom an adequate education can be provided by the staff and facilities available. San Diego State University may limit graduate enrollment on the basis of field and aptitude of the applicant.

Members of the faculty of San Diego State University holding appointments at or above rank of instructor or lecturer may not be candidates for degrees on this campus. Faculty may register for courses in accordance with Division of Graduate Affairs policies.

Registration

San Diego State University students register online through the SDSU WebPortal at <http://www.sdsu.edu/portal>. On campus and telephone registration are not available. The *Class Schedule* is available at <http://www.sdsu.edu/schedule> and contains specific information on registration, 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.

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 post-baccalaureate 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. Undergraduate students 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.

Concurrent Master's Degree Credit

The bachelor's degree must be earned at the end of the semester or term in which the concurrent credit is earned. Concurrent advanced degree credit must be earned during the final semester of the undergraduate degree. Concurrent credit will not be granted retroactively.

Senior undergraduate students requesting to take concurrent master's degree credit must petition the Graduate Dean and meet the following criteria:

1. A senior who has met all of the required freshman competency requirements in writing and mathematics (EPT and ELM) or is currently registered in competency coursework;
2. Have a minimum grade point average of at least a 3.0 in the last 60 semester units attempted;
3. Student is within 12 units of completing requirements for the bachelor's degree;
4. Attempts no more than a maximum of 15 units. The maximum number of units that 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;
5. Courses taken for concurrent advanced degree credit must be approved by the department. Courses are to be at the 500- numbered and certain 600- and 700-numbered courses;
6. Petitions may be obtained from the Division of Graduate Affairs and must be submitted to the Office of Advising and Evaluations by the end of the third week of classes of the semester or term in which the concurrent credit is earned;
7. The student must have on file a current application for graduation with the bachelor's degree.

Concurrent Post-Baccalaureate Credit

Applicable to the "Fifth Year" Credential Requirement only

Concurrent post-baccalaureate 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 post-baccalaureate credit;
5. Submit a 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 post-baccalaureate credit. Concurrent post-baccalaureate credit will not be granted retroactively.

Petition forms are available in the Office of the Registrar, Student Services West, Room 1641.



Tuition and Fees

The CSU makes every effort to keep student costs to a minimum. Tuition and fees listed in published schedules or student accounts may need to be increased when public funding is inadequate. Therefore, CSU reserves the right, even after initial payments are made, to increase or modify any listed tuition or fees. All listed fees, other than mandatory systemwide tuition, are subject to change without notice, until the date when instruction for a particular semester or quarter has begun. All CSU-listed tuition and fees should be regarded as **estimates** that are subject to change upon approval by the Board of Trustees, the chancellor, or the presidents, as appropriate. Changes in mandatory systemwide tuition will be made in accordance with the requirements of the Working Families Student Fee Transparency and Accountability Act (*California Education Code* Sections 66028 - 66028.6).

Students will be liable for amounts that become due as a result of such change.

For updated information regarding the tuition and fees structure for 2018-2019 refer to the online *Class Schedule* or Student Account Services website at <http://www.sdsu.edu/sas>.

Tuition and fees must be paid prior to accessing the WebPortal to register. Payments are accepted for the exact amount of fees. Overpayments of \$10.00 or less are refunded only upon request. If your payment for tuition and fees 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 tuition and fees should be made online or by check or money order. The university reserves the right to refuse payment by personal check or eCheck from those individuals who have previously had items returned unpaid by their bank. Refunds may be applied against other amounts due to the university.

You may pay your fees online using your checking account information (eCheck). There is no additional fee assessed for this service. Visit the Student Account Services website at <http://www.sdsu.edu/sas> and see Online Student Account Services.

In cooperation with SDSU, CASHNet™SmartPay allows students to pay their tuition and fees and/or out-of-state tuition with American Express, Discover Card, MasterCard, or VISA. CASH-Net™SmartPay is accessed directly from your online student account. Visit the Student Account Services website at <http://www.sdsu.edu/sas> and see Online Student Account Services.

Payments made via CASHNet™SmartPay are received by Student Account Services 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 website 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.

Depending on the situation, you may be required to clear your hold with cash, money order, or certified check.

Basic Tuition Fees – All Students

(On basis of units carried.)

The following reflects applicable systemwide fees. These fees are subject to change. Fee payment information and instructions are in **Money Matters** available at <http://www.sdsu.edu/sas>.

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, other zero unit courses, and half unit courses are charged as one unit for fee purposes.

BASIC TUITION AND FEES

FALL 2018 / SPRING 2019, Per Semester	
Units Attempted	Basic Tuition and Fees
UNDERGRADUATE	
0 units – 6.0 units	\$2,538.00
6.1 or more units.....	\$3,744.00
GRADUATE	
0 units – 6.0 units	\$2,955.00
6.1 or more units.....	\$4,461.00
TEACHING CREDENTIAL CANDIDATES	
0 units – 6.0 units	\$2,805.00
6.1 or more units.....	\$4,203.00
EDUCATION DOCTORAL STUDENTS*	
0 units – 6.0 units	\$6,792.00
6.1 or more units.....	\$6,792.00
PHYSICAL THERAPY DOCTORAL STUDENTS*	
0 units – 6.0 units	\$9,471.00
6.1 or more units.....	\$9,471.00

*Does not include joint doctoral students.

Tuition and fees above include a Student Body Association Fee of \$35.00, a Student Body Center Fee of \$237.00, a Health Facilities Fee of \$25.00, an Instructionally Related Activities Fee of \$194.00, a Health Services Fee of \$150.00, a Library Use Fee of \$25.00, a Student Success Fee of \$207.00, and a Basic Tuition Fee of either \$1,665.00 or \$2,871.00 for undergraduate students, \$2,082.00 or \$3,588.00 for graduate students, \$1,932.00 or \$3,330.00 for teaching credential candidates, or \$5,919.00 for education doctoral students, or \$8,598.00 for physical therapy doctoral students, depending on unit load.

Imperial Valley Campus students pay a Student Body Association Fee of \$65.00, a Student Body Center Fee of \$24.00, a Health Facilities Fee of \$3.00, a Health Services Fee of \$10.00, and an Instructionally Related Activities Fee of \$15.00. 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.

Students are charged campus fees in addition to tuition fees and other systemwide fees.

Optional Fees: The CSU Board of Trustees adopted the Student Involvement and Representation Fee (SIRF), establishing a stable funding model for the California State Student Association (CSSA). The new funding model expands independence and builds capacity to engage students in advocacy and policy making. The funding model consists of a \$2 per-term fee assessed to each CSU student, on a voluntary basis, allowing the choice to opt-out each semester.

Graduate Professional Program Fee

Graduate students in the Fowler College of Business must pay an additional \$270.00 per unit for all units taken as a requirement for graduation for the following degrees. This fee is in addition to basic tuition and fees and nonresident tuition.

- MBA Master of Business Administration
- MS Accountancy
- MS Business Administration
- MS Information Systems

A fee waiver is available for courses that are not used to meet degree requirements (excluding prerequisite courses). Contact the Graduate Business Programs Office, Education and Business Administration, Room 448, for details.

Tuition For Nonresident Students (Foreign and Out-of-State)

Nonresident tuition is paid in addition to basic tuition and fees and other systemwide fees charged to all students. Tuition will be charged for all units attempted. The total nonresident tuition paid per term will be determined by the number of units taken.

Per unit **\$396.00**

(Mandatory systemwide fees are waived for those individuals who qualify for such exemption under the provisions of the *California Education Code*. 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 **\$1,282.00**

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 2018-2019 Academic Year

	Living off campus	Living on campus	Commuting from home
Basic tuition and fees.....	\$7,488	\$7,488	\$7,488
Books and supplies	\$1,915	\$1,915	\$1,915
Food and housing	\$13,399	\$16,735	\$4,458
Transportation.....	\$1,982	\$1,544	\$1,593
Miscellaneous/personal	\$1,480	\$1,480	\$1,480
Total	\$26,264	\$29,162	\$16,934

The academic year basic tuition and fees for teacher credential students are \$8,406. Basic tuition and fees are \$8,922 for post-baccalaureate students, \$13,584 for education doctoral (Ed.D.) students, and \$18,942 for physical therapy doctoral students. Business students in selected degree programs pay an additional \$270 per unit (refer to the Graduate Professional Program Fee information). Nonresident tuition is an additional \$396 per unit.

All fees and costs are subject to change without notice.

The CSU makes every effort to keep student costs to a minimum. Fees listed in published schedules or student accounts may need to be increased when public funding is inadequate. Therefore, CSU reserves the right, even after fees are initially charged or initial fee payments are made, to increase or modify any listed fees. All listed fees, other than mandatory systemwide fees, are subject to change without notice, until the date when instruction for a particular semester or quarter has begun. All CSU-listed fees should be regarded as **estimates** that are subject to change upon approval by the Board of Trustees, the chancellor, or the presidents, as appropriate. Changes in mandatory systemwide fees will be made in accordance with the requirements of the Working Families Student Fee Transparency and Accountability Act (California Education Code, Sections 66028 - 66028.6).

Students will be liable for amounts that become due as a result of such change.

For updated information regarding the fee structure for 2018-2019 refer to the online *Class Schedule* or Student Account Services website at <http://www.sdsu.edu/sas>.

Parking Fees

Student commuter semester parking permit.....	\$171.00
Motorcycle/moped semester parking permit.....	\$37.00
Combined student/overnight semester parking permit.....	\$271.00

Section 42201 of Title 5, *California Code of Regulations*, provides for the waiver of campus parking fees for students with disabilities who have been issued a DMV placard or license plate, and who meet low income requirements. For further information regarding eligibility, contact the Student Ability Success Center, Calpulli Center, Room 3101. Additional parking information is available at <http://bfa.sdsu.edu/campus/parkingtrans/permits.aspx>.

Miscellaneous Fees

(Fees payable when service is rendered.)

Administrative citation fee.....	\$75.00
Application for admission or readmission (nonrefundable).....	\$55.00
Athletic cheer team membership fee (fee range based on planned competitions and available resources).....	\$500 to \$1,500
Athletic winter guard membership fee (fee range based on yearly travel plans)	\$600 to \$1,500
Counseling Diversion Program fee	\$100.00
Counseling Diversion Program fee (missed appointment)	\$30.00
Credential application fee*	\$55.00
Credential evaluation fee.....	\$25.00
Credit by examination fee.....	\$100.00
Diploma replacement fee	\$12.00
Document copying fee (per page).....	\$1.00
Enrollment confirmation deposit (nonrefundable).....	\$400.00
Graduation services fee	\$55.00
Interest inventory assessment fee	\$10.00
Internet reconnect fee (wired/wireless).....	\$150.00
Late course forgiveness fee	\$20.00
Late fee (failure to meet administratively required appointment or time limit)	\$20.00
Late key fee.....	\$30.00
Late registration (nonrefundable).....	\$25.00
Latin diploma fee.....	\$22.00
Lock and locker fee (optional).....	\$1.00
Loss of or damage to library materials Replacement cost plus service charge.....	\$8.00
Lost key fee (per key) (Late fee also charged when applicable)	\$50.00
Musical instrument and audio/visual equipment fee.....	\$20.00
Photo-identification card (one-time cost to new undergraduate and graduate students at time of registration (nonrefundable).....	\$18.00
Photo-identification card replacement fee.....	\$20.00
Police report fee.....	\$10.00
Registration installment plan service charge (nonrefundable).....	\$60.00
Resident affiliate program (RAP) fee	\$25.00
Returned payment fee**	\$35.00
Teacher Education Credential Application processing/advising fee	\$25.00
Tow fee.....	\$150.00
Towel fee (optional)	\$4.00
Transcript of record, official (per transcript).....	\$10.00
Official Transcript of Record, On-Demand (per transcript) (\$25.00 for first transcript and \$10.00 for each additional on-demand transcript printed at the same time.).....	\$25.00
Tuition (Foreign and Out-of-State) installment plan initial payment of \$2,376 (6 units) and service charge. Equal to	15% (of each installment payment)
Vehicle boot fee	\$150.00

*Established by and payable to the California Commission on Teacher Credentialing.

**Late fee also charged when applicable.

Tuition and Fees

Miscellaneous Instructional Course Charges

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

A list of the courses and fee amounts can be found at <http://www.sdsu.edu/sas> under Money Matters. The courses are also footnoted in the *Class Schedule*.

Installment Plan

Basic Tuition and Fees. An installment plan is available for students who wish to pay their basic tuition and fees in payments. There is a \$60.00 service charge for this service, paid at the time the initial payment is made. Additional information and instructions are available in the Money Matters section of the Student Account Services website.

Tuition (Foreign and Out-of-State). An installment plan is available for students who wish to pay their tuition in payments. There is a minimum payment of \$2,376 and a 15% service charge applied to each installment payment. Additional information and instructions are available on the Student Account Services website at <http://www.sdsu.edu/sas>.

Credit Cards

Student Account Services/Cashiers does not accept credit cards for payment of tuition and fees except as applicable under the terms of the Installment Plan. Visa and MasterCard debit cards may be used for payment of student fees. 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, CASH-Net™ SmartPay does afford students the choice to use a credit card (American Express, MasterCard, Discover Card and Diners Club Card) to pay tuition and fees. Refer to fees section on previous page. Most ATM cards are also accepted for payment of miscellaneous charges. Payment of student tuition and fees may be subject to a non-refundable credit card processing fee. Additional information is available from Student Account Services.

Liability for Payment

Whether or not an invoice is received from the university, students are liable for payment of all tuition and fees related to **units held on or added after the close of business on the 12th day** following the commencement of instruction. Foreign and out-of-state students are also liable for tuition related to all **units held on or added after the close of business on the 12th day** following the commencement of instruction.

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

Nonresident (foreign and out-of-state) tuition must be paid prior to the first day of classes. Nonresident and foreign students must pay or sign up for the Tuition Installment Plan for a minimum of 12 units (9 units graduate) at the time of registration. Undergraduate foreign students wishing to pay fewer than 12 units and graduate students wishing to pay fewer than nine units must submit an approved Application for Reduced Course Load available through the International Student Center.

IT IS THE STUDENT'S RESPONSIBILITY TO BE AWARE OF TOTAL TUITION AND FEES DUE. Additional fees that may become due as a result of units added during the semester must be paid at Student Account Services/Cashiers at the time the units are added. Note fee schedule above. **LATE PAYMENTS FOR TUITION AND FEES ARE SUBJECT TO AN ADDITIONAL LATE FEE AND APPLICABLE SERVICE CHARGES.**

Dishonored Check

If your check (either paper or electronic) 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 tuition or fees 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, eCheck, or credit card from those individuals who have previously had items returned unpaid by their bank.

Refund of Tuition and Mandatory Fees, Including Nonresident Tuition

Regulations governing the refund of tuition and 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 and campus fees that are required to be paid in order to enroll in state-supported academic programs at the CSU. Refunds of fees and tuition charges for self-support, special session, and extended education programs or courses at the CSU are governed by a separate policy established by the university, available at <http://www.sdsu.edu/sas>.

In order to receive a full refund of tuition and mandatory fees, less an administrative charge established by the campus, 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 at <http://www.sdsu.edu/registrar>.

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 or drops all courses prior to the campus-designated drop period will receive a refund of tuition and mandatory fees, including nonresident tuition, based on the portion of the term during which the student was enrolled. No student withdrawing after the 60 percent point in the term will be entitled to a refund of any mandatory fees or nonresident tuition.

A student who, within the campus designated drop period and in accordance with campus procedures, drops units resulting in a lower tuition and/or mandatory fee obligation shall be entitled to a refund of applicable tuition and mandatory fees less an administrative charge established by the campus.

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

Students will also receive a refund of tuition and mandatory fees, including nonresident tuition, under the following circumstances:

- The tuition and fees were assessed or collected in error;
- The university cancelled the course for which the fees were assessed or collected;
- The course for which the tuition and 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 tuition and 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 Student Account Services. Refunds may be applied against other amounts due to the university.

Return to Title IV Financial Aid Requirements

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

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

Title IV Financial Aid consists of the following programs:

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

Examples of refund calculations are available upon request at Student Account Services.

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. Percentage for fall and spring semester permits:

Period	Amount of Refund
First week of class	100 percent of fee
Second and third week.....	75 percent of fee
Fourth week through end of sixth week.....	50 percent of fee
Seventh week through tenth week.....	25 percent of fee
Eleventh week through end of term.....	None

Your parking permit must be turned in to Parking and Transportation Services at the time you file your refund application. 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 have not paid fees or registered for at least one course prior to the first day of classes. Newly admitted students **MAY** be exempted from this fee. 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. Students who have received financial aid and withdraw from the institution during the academic term or payment period may need to return or repay some or all of the funds received, which may result in a debt owed to the institution.

Appeals Process – Student Account Services

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 Student Account Services. Petitions must be filed with Student Account Services **prior to the end of the 12th 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 tuition and fees were not earned by the university.

Summer Session Fees

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

College of Extended Studies Course Fees

Refer to College of 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 tuition and fees paid or waived under provisions of these respective programs. See *Class Schedule* for instructions regarding deadlines for submission of documents to Student Account Services/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 Joan and Art Barron Veterans Center located in Student Services West. Call 619-594-5813 or visit <http://www.sdsu.edu/veterans>.

Fee Waivers and Exemptions

The *California Education Code* provides for the waiver of mandatory systemwide tuition fees as follows:

Section 66025.3 – Dependent eligible to receive assistance under Article 2 of Chapter 4 of Division 4 of the Military and Veterans Code; child of any veteran of the United States military who has a service-connected disability, has been killed in service, or has died of a service-connected disability, and meets specified income provisions; dependent, or surviving spouse who has not remarried of any member of the California National Guard who, in the line of duty, and while in the active service of the state, was killed, died of a disability resulting from an event that occurred while in the active service of the state, or is permanently disabled as a result of an event that occurred while in the active service of the state; and undergraduate student who is a recipient of a Medal of Honor, or undergraduate student who is a recipient of a Medal of Honor who is no more than 27 years old, meets the income restriction and California residency requirement. The waiver of tuition or fees under this section applies only to a person who is determined to be a resident of California pursuant to Chapter 1 (commencing with Section 68000) of Part 41.

Section 66602 – A qualifying student from the California State University who is appointed by the Governor to serve as a Trustee of the California State University for the duration of his or her term of office

Section 68120 – Surviving spouse or child of a deceased California resident who was employed by a public agency, or was a contractor or an employee of a contractor, performing service for a public agency, and was killed in the performance of his/her principal duties of active law enforcement or fire suppression duties (referred to as Alan Pattee Scholarships). A person who qualifies for the waiver under this section as a surviving child of

Tuition and Fees

a contractor or of an employee of a contractor, who performed services for a public agency must have enrolled as an undergraduate student at the California State University and meet income restriction requirement.

Section 68121 – A qualifying student enrolled in an undergraduate program who is the surviving dependent of any individual killed in the September 11, 2001 terrorist attacks on the World Trade Center in New York City, the Pentagon building in Washington, D.C., or the crash of United Airlines Flight 93 in southwestern Pennsylvania, if the student meets the financial need requirements set forth in Section 69432.7 for the Cal Grant A Program and either the surviving dependent or the individual killed in the attacks was a resident of California on September 11, 2001. Students who may qualify for these benefits should contact the Admissions/Registrar's Office for further information and/or an eligibility determination.

The *California Education Code* provides for the following nonresident tuition exemptions:

Section 68075.7 – A nonresident student is exempt from paying nonresident tuition or any other fee that is exclusively applicable to nonresident students if the student (1) resides in California, (2) meets the definition of "covered individual" as defined in either (A) of Section 3679(c)(2)(A) or (B)(ii)(I) of Title 38 of the United States Code, as that provision read on July 1, 2017; or (B) Section 3679(c)(2)(B) (9)(i) or (ii)(II) of Title 38 of the *United States Code*, as that provision read on January 1, 2017; and (3) is eligible for education benefits under either the federal Montgomery GI Bill-Active Duty program or the Post-9/11 GI Bill program as each read on January 1, 2017.

Section 68122 – A student who is a victim of trafficking, domestic violence, and other serious crimes who has been granted T or U visa status are exempt from paying nonresident tuition to the same extent as individuals who are admitted to the United States as refugees under Section 1157 of Title 8 of the *United States Code*.

Section 68130.5 – A student, other than a nonimmigrant alien, who is not a resident of California is exempt from paying nonresident tuition if the student meets the requirements of 1 through 4 below:

1. Satisfaction of the requirements of A or B.
 - A. A total attendance of, or attainment of credits earned while in California equivalent to, three or more years of full-time attendance or attainment of credits at any of the following:
 - i. California high schools;
 - ii. California high schools established by the State Board of Education;
 - iii. California adult schools established by a county office of education, a unified school district or high school district, or the Department of Corrections and Rehabilitation (subject to the class hours' requirement);
 - iv. Campuses of the California Community Colleges (subject to the credit requirements);
 - v. A combination of those schools set forth in clauses i to iv, inclusive.
 - B. Three or more years of full-time high school coursework, and a total of three or more years of attendance in California elementary schools, California secondary schools, or a combination of California elementary and secondary schools.
2. Satisfaction of any of the following:
 - A. Graduation from a California high school or attainment of the equivalent thereof;
 - B. Attainment of an associate degree from a campus of the California Community Colleges;
 - C. Fulfillment of the minimum transfer requirements established for the California State University for students transferring from a campus of the California Community Colleges.

3. Registration as an entering student at, or current enrollment at, an accredited institution of higher education in California not earlier than the fall semester or quarter of the 2001–2002 academic year.
4. In the case of a person without lawful immigration status, the filing of an affidavit with the institution of higher education stating that the student has filed an application to legalize his or her immigration status, or will file an application as soon as he or she is eligible to do so.

Students who may 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 post-baccalaureate students may participate in the program. The program waives the \$55 admission application fee and regular registration fees (except for a nominal fee). Participants must apply for admission during the regular application filing period and be admitted under regular admission requirements. Participants register for classes on a space-available basis after regularly matriculated students have completed registration. For additional information, contact the Office of Admissions.

Procedure for the Establishment or Abolishment of Campus-Based Mandatory Fees

The law governing the California State University provides that specific campus fees defined as mandatory, such as a student body association fee and a student body center fee may be established. A student body 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). The university president may adjust the student body association fee only after the fee adjustment has been approved by a majority of students voting in a referendum established for that purpose. The required fee shall be subject to referendum at any time upon the presentation of a petition to the university president containing the signatures of 10 percent of the regularly enrolled students at the university. Student body association fees support a variety of cultural and recreational programs, childcare centers, and special student support programs. A student body 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). Once bonds are issued, authority to set and adjust student body 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.

The process to establish and adjust other campus-based mandatory fees requires consideration by the campus fee advisory committee and a student referendum as established by CSU Executive Order 1102, Section III. The university president may use alternate consultation mechanisms if he/she determines that a referendum is not the best mechanism to achieve appropriate and meaningful consultation. Results of the referendum and the fee committee review are advisory to the university president. The president may adjust campus-based mandatory fees, but must request the chancellor to establish a new mandatory fee. The president shall provide to the campus fee advisory committee a report of all campus-based mandatory fees. The campus shall report annually to the chancellor a complete inventory of all campus-based mandatory fees.

For more information or questions, contact the Budget Office in the CSU Chancellor's Office at 562-951-4560.

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, including tuition and student charges, 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 charges and 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 charges and 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. The institution may also report the debt to a credit bureau, offset the amount due against any future state tax refunds due the student, refer the debt to an outside collection agency and/or charge the student actual and reasonable collection costs, including reasonable attorney fees if litigation is necessary, in collecting any amount not paid when due.

If a person believes he or she does not owe all or part of an asserted unpaid obligation, that person may contact Student Account Services. Student Account Services, or another office on campus to which Student Account Services may refer the person, will review all pertinent information provided by the person and available to the campus and will advise the person of its conclusions.



Financial Aid and Scholarships

Financial Support for Graduate Students

At San Diego State University, a variety of federal, state, and institutional financial aid programs designed to substantially reduce or eliminate economic barriers to the pursuit of graduate study are available to students admitted to advanced degree curricula. While federal and state aid programs are only available to United States citizens and eligible noncitizens, institutional aid programs and university scholarships address the unique financial needs of individual students across a broad range of economic and academic circumstances.

On-campus programs for advanced degree students at San Diego State University include appointments as graduate teaching associates, graduate assistants, research assistants, and student assistants as well as tuition and fee assistance, fellowships, scholarships, grants, and forgivable loans.

Eligibility requirements and award amounts often differ by discipline and experience, and some opportunities are available only to students admitted to doctoral programs. Nominations for almost all of these awards originate with the chair or director of the department or school of the degree program for master's degree students or the coordinator of the doctoral program for students pursuing either the Ph.D. or Ed.D. degree. The Division of Graduate Affairs administers most of these programs for the university. The graduate dean must approve most awards and appointments and determine whether the applicant is in good standing with the university. Continuing and prospective students interested in specific information about any of these on-campus programs are invited to write or visit the Division of Graduate Affairs at San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-8220. The phone number is 619-594-5213. The Division of Graduate Affairs is located in Student Services East, Room 1410. Information is also available at <http://aztecgrad.sdsu.edu>.

Financial Aid

Information about all state, federal, and institutional aid programs is available from the Office of Financial Aid and Scholarships located in Student Services West, Room 3615. The phone number is 619-594-6323. Information about the available programs as well as the academic standards that a student must maintain to remain eligible for such aid can be accessed at <http://www.sdsu.edu/financialaid>.

Applications are reviewed and aid awarded throughout the year based on available funding. Applicants who want to be considered for all types of state and federal financial aid should apply as soon after October 1 as possible by completing a Free Application for Federal Student Aid (FAFSA) or California Dream Act application.

The FAFSA is all you need to begin the application process. You may apply by using FAFSA on the Web at <http://www.fafsa.ed.gov>. For California Dream Act-eligible students, complete the California Dream Act application at <https://dream.csac.ca.gov/>.

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. Log in to the SDSU WebPortal at <http://www.sdsu.edu/portal> to make sure there is a valid e-mail address on record for you. The Office of Financial Aid and Scholarships home page and secure website, AidLink, have been designed to streamline the application and award process for SDSU students. 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.

Tuition Assistance Program for Out-of-State and Foreign Students

In California, all students are required to pay a registration fee based on the number of units of enrollment. In addition to this fee, nonresidents of California, including international students, pay tuition that currently amounts to \$396 per unit of enrollment.

The CSU makes every effort to keep student costs to a minimum. Fees listed in published schedules or student accounts may need to be increased when public funding is inadequate. Therefore, CSU reserves the right, even after fees are initially charged or initial fee payments are made, to increase or modify any listed fees. All listed fees, other than mandatory systemwide fees, are subject to change without notice, until the date when instruction for a particular semester or quarter has begun. All CSU-listed fees should be regarded as estimates that are subject to change upon approval by the Board of Trustees, the chancellor, or the presidents, as appropriate. Changes in mandatory systemwide fees will be made in accordance with the requirements of the Working Families Student Fee Transparency and Accountability Act (*California Education Code Sections 66028 - 66028.6*).

Students will be liable for amounts that become due as a result of such change.

For updated information regarding the fee structure for 2018-2019, refer to the online *Class Schedule* or Student Account Services website at <http://www.sdsu.edu/sas>.

For graduate students of superior scholastic achievement, the university may provide assistance by waiving all or part of the cost of out-of-state tuition. The number of students receiving tuition waivers is limited.

To be eligible for this program, an applicant must be a permanent resident or a citizen of the United States or a nonresident who is a citizen and resident of a foreign country. Assistance is provided on a semester-by-semester basis. Domestic non-residents are only eligible for one year. International students may qualify for a continuation beyond their first year.

For more information, new students should contact the chair or director of the department or school of the Master's program to which they have been admitted. Students pursuing a Ph.D. should consult the program director. Departmental nominations should be submitted to the Division of Graduate Affairs.

Fee Assistance Program

For most students pursuing the Ph.D. degree, the university has some scholarship funds available to offset in whole or in part the cost of the state-mandated registration fees. Like the tuition assistance program, awardees must participate in the teaching program of the university. Information regarding this support is available from the directors of the doctoral programs.

Graduate Scholarships

San Diego State University awards scholarships to students to recognize and encourage individual talents, academic excellence, leadership skills, and the determination to succeed in spite of significant hardships. Scholarships are also awarded to students to support participation in SDSU approved study abroad programs, community service programs, and faculty approved conference attendance that is part of a student's SDSU curriculum. All students, regardless of nationality, citizenship, residency status, area of study, or grade point average are encouraged to apply for as many scholarships as possible.

Applications and specific requirements are available on the SDSU Office of Financial Aid and Scholarships website at <http://www.sdsu.edu/financialaid>. Deadlines vary and new SDSU scholarship opportunities are added to the website throughout the year. The main SDSU scholarship application filing period is August through early February for awards paid in the following academic year. Applications accepted August through October offer awards paid in the current academic year.

The Office of Financial Aid and Scholarships coordinates the SDSU scholarship application and awarding process with the committees from the various academic departments and organizations responsible for selecting recipients. Scholarship funds are provided by private donors, corporations, professional associations, and SDSU alumni.

Other Scholarship Resources and Links

The Office of Financial Aid and Scholarships website also lists resources and links to outside scholarship information and free search websites.

National Fellowships

The Office of Academic Scholarships receives annual announcements of the Fulbright, Marshall, Kent, Rotary, and other national fellowship programs. Since each campus is limited in the number of applications it may endorse, students interested in fellowships of this type are encouraged to discuss their applications with their designated campus adviser and with members of the university faculty who have themselves held these fellowships. Since test scores from the Graduate Record Examinations General Test are required, students should take this examination well in advance of the deadline date for the submission of applications. The GRE may be scheduled through the Testing Services office located in Student Services West, Room 2549. The telephone number is 619-594-5216. Additional information is available online at <http://studentaffairs.sdsu.edu/testofc>.

Graduate Equity Fellowship Program

The Graduate Equity Fellowship program provides support for economically disadvantaged graduate students, especially from groups who are underrepresented within their respective disciplines. Only legal residents of California who can demonstrate significant financial need are eligible. Recipients must be classified or conditionally classified graduate students and must enroll for a minimum of six units of coursework each semester they hold the fellowship. Fellowships range from \$500 to \$2,000 for an academic year depending on demonstrated need. Students may receive awards for a maximum of two academic years but they must apply each year. Interested students should complete a Graduate Equity Fellowship application available at http://newscenter.sdsu.edu/gra/financial_aid.aspx and the Free Application for Federal Student Aid (FAFSA).

California Pre-Doctoral Program

The California Pre-Doctoral Scholarship Program targets students who have experienced economic and educational disadvantages, and intend to apply to a doctoral program. The program supports upper division undergraduate students, and current (non-Ph.D.) graduate students. The program places a special emphasis on increasing the number of CSU students who enter doctoral programs at one of the University of California institutions. Students chosen for this award are designated Sally Casanova Scholars. Recipients receive direct guidance from CSU faculty members and receive funding for travel, development (broadly defined), and summer research experience (at any U.S. major research university). For more information, contact the Division of Graduate Affairs or visit <http://www.calstate.edu/PreDoc/index.shtml>.

Chancellor's Doctoral Incentive Program

The Chancellor's Doctoral Incentive Program targets current or incoming doctoral students who intend to eventually pursue CSU instructional faculty positions. Students who obtain a loan through this program may have a portion of it forgiven if they obtain a CSU faculty position. For more information, contact the Division of Graduate Affairs or visit <http://www.calstate.edu/Pre-Doc/index.shtml>.



Student Services

Career Services

Student Services East, Room 1200
619-594-6851
<http://career.sdsu.edu>

Career Services supports student success by serving as the central campus resource for career development, planning, and advising. The center works with on-campus and community partners to ensure that SDSU students build the relevant skills and effective connections they need to achieve their career goals.

Career Development and Guidance

Career counselors, career peers, and employers support students with essentials for success that include choosing a major, locating and applying for internships, connecting to mentors, finding summer jobs, and securing full-time employment. The career center's partners participate in programming and services that help students develop skills such as resume writing, networking at career fairs, researching careers, job interviewing, effectiveness on social media, participating in faculty-led research, and preparing for graduate school.

Aztec Career Connection

Career Services provides SDSU students with Aztec Career Connection, the SDSU online portal for internships, research opportunities, and full-time employment. Aztec Career Connection can be found by visiting the Career Services homepage at <http://career.sdsu.edu>. This resource provides students with event information and advance registration for workshops and events. Aztec Career Connection also provides free access to the following resources:

- TypeFocus – career assessment and planning;
- BigInterview – mock interviewing;
- Going Global – a resource for working abroad;
- On-Campus Interviews – interview with employers via semester-based program.

Students have access to Aztec Career Connection as soon as they register for classes. See the center's website at <http://career.sdsu.edu> for instructions on accessing Aztec Career Connection.

Internships, Mentorships, and Employment Opportunities

Career Services serves as the central campus resource for internships and mentorships. The center partners with academic departments, employers, and alumni to provide information about for-credit and other internship opportunities. Each semester, Career Services also offers a series of internship workshops and partners with the Office of Alumni Engagement to provide mentorship opportunities via the Aztec Mentor Program (AMP). AMP matches students with alumni and other professionals to strengthen career exploration, job readiness, and professional networking. The career center also works with campus partners to provide information about student-to-student mentoring opportunities. Additionally, Career Services manages a centralized resource to apply and interview for full-time jobs, and internships via on-campus interviewing. The center hosts employer information sessions, networking events, and professional workshops where students can learn about an array of industries and occupations while interacting directly with recruiters. The center also offers signature programming for current topics such as security clearance and emerging industries.

Career Fairs and On-Campus Interviews

Career Services provides all-major, two-day career fairs in September and February. The center also works with colleges to provide industry-focused career fairs that include business, education, engineering/STEM, government, and non-profit disciplines. Consult Aztec Career Connection for a schedule of events and to research participating employers. Employers who participate in career fairs often interview students after the fair for full-time jobs and internships.

On-campus interviews provide SDSU students the competitive advantage to participate in first interviews with employees in Career Services. These on-campus interviews focus on full-time employment and summer internship programs. Juniors and seniors are encouraged to review on-campus interviewing in the fall semester since this is when employers recruit most actively.

Students who receive offers to interview via telephone and require a quiet space for conducting these interviews should contact Career Services for access to interview rooms. The center will require a RedID to make space available for students.

Career Resource Room

Career Services offers students a space in which to explore career options, meet with career peers and student assistants, and study. In the Career Resource Room, computer stations provide access to assessments, Aztec Career Connection, and software for professional activities, such as developing resumes. This room also holds numerous print publications on career topics such as what jobs are available to students with a variety of majors, how to develop a resume, how to prepare for and seek employment in any number of specific industries, and what options exist for graduate and professional schools.

Campus Connections

Career Services leverages campus contacts to empower students and strengthen the SDSU community. Career Services partners with on-campus areas, such as academic internship coordinators, college faculty, Residential Education, the Student Ability Success Center, Student Life and Leadership, Academic Advising, Associated Students, and the Alumni Association. WorkAbility IV is an award-winning partnership with the Student Ability Success Center and the State Department of Rehabilitation. This service provides career-focused support to qualified students. Visit Career Services or the Student Ability Success Center to learn more.

Career Placement

Career Services may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. Any such data provided must be in a form that does not allow for the identification of any individual student. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in the California State University.

Visit the Career Center

Career Services (Student Services East, Room 1200) is open 8 a.m. to 4:30 p.m., Monday through Friday. Students can call or stop by to schedule individual appointments with career counselors. Fast-15 walk-in appointments are held daily: Monday through Thursday from 1 p.m. to 3 p.m. and Friday from 10 a.m. to noon. Visit the center's website at <http://career.sdsu.edu> for current schedule information. SDSU alumni are invited to attend career fairs, but other services to alumni may be fee-based. For more information, contact Career Services.

Center for Intercultural Relations

Conrad Prebys Aztec Student Union, Room 250
619-594-7057

<http://studentaffairs.sdsu.edu/intercultural>

The Center for Intercultural Relations researches, designs, and implements unique programs that promote the appreciation of cultural diversity and fosters intercultural and cross-cultural understanding.

The center provides programs and services that support the academic mission of the university by enhancing the educational, personal, cultural, and social development of students. Intercultural Relations strives to build positive advocacy and collaborative relationships with the general student body with special emphasis towards underrepresented student populations.

Programs and services expand students' cultural horizons and honor their respective cultural experiences. Intercultural Relations works in conjunction with university colleges and departments to conduct programs related to recruitment, orientation, retention, and graduation of students. The center also offers programs and workshops on academic, personal, professional, and cultural development, all of which support student success at SDSU.

- **Black Resource Center (BRC)** – provides a safe and welcoming environment where students, staff, and faculty of the African diaspora can collaborate, congregate, and cultivate a unified community. Through collaborative efforts, the center promotes intellectual exploration and academic achievement through career and professional development strategies; educational, research, and scholarship initiatives; and leadership and service opportunities.
- **Pride Center at SDSU** – creates, strengthens, and sustains an affirming, inclusive, open, and safe gathering space for persons of all gender and sexual identities and their allies. It also facilitates awareness, campuswide education, dialogue, and research on issues related to sexuality and gender. The center addresses the needs of students who may experience disenfranchisement, discrimination, harassment, or other barriers to student success as a result of their gender identity, sexual orientation, or expression. For more information, visit <http://pridecenter.sdsu.edu>.
- **Women's Resource Center (WRC)** – is dedicated to creating a women's-centered space that connects students to campus and community resources, creates and facilitates educational programs and events, empowers student voices, and provides support and advocacy. The center focuses on issues related to feminism, gender equity, sexual violence, health and wellness, leadership development, identity exploration, and social change. For more information, visit <http://www.sdsu.edu/wrc>.

Counseling & Psychological Services (C&PS)

Calpulli Center, Room 4401
619-594-5220

<http://studentaffairs.sdsu.edu/cps>

Counseling & Psychological Services (C&PS) provides a variety of services to enrolled SDSU students. Students interested in services should call to consult with a therapist for recommendations. These confidential services are covered by the student health fee.

The Center for Well-Being offers resources designed to help students help themselves. Several stations are set up to include hands-on activities that promote relaxation and stress reduction. The center has a small library of self-help books and can be a relaxing place to spend time. The alpha chamber egg chairs and massage chair provide environments where students experience deep relaxation.

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

- C.O.P.E. (Cultivating Optimal Personal Experiences);
- Healthy Emotional Living;
- LGBTQ Support Group (Queerversations);
- Living with Loss;
- Mindfulness Meditation;
- Rise (group for sexual assault survivors);
- Students in the Helping Professions;
- Various single servings (one-time workshops).

Crisis intervention services are available at C&PS for students who are in need of immediate assistance because of a severe emotional crisis that may be life threatening or otherwise require immediate attention. Examples of urgent situations may include: being a recent victim of assault, grieving the recent death of a friend or family member, or thinking about suicide. After hours and weekend emergency assistance can be obtained through the San Diego Access & Crisis Line at 888-724-7240 (administered by the County of San Diego).

Other services available at C&PS include:

- **ASPIRE** – individualized program designed for students to deal with substance use;
- **Biofeedback** computer/technology-based, four-session intervention for anxiety reduction;
- **Bounce Back** – one unit, semester-long course designed to help students on academic probation;
- **Individual, couple, and family counseling**;
- **Successful Community Living** – workshop designed around themes of community and civility;
- **Web resources** – anxiety, assessment tools and intervention for alcohol and other substance use, depression, disordered eating, music to assist with regulated, diaphragmatic breathing, relationships, stress, and trauma.

Housing Administration and Residential Education

6001 Lindo Paseo

619-594-5742

<http://housing.sdsu.edu>

SDSU's graduate student housing options offer the comfort and privacy of suite and apartment living, while providing a community conducive to student success.

Unlike living off-campus, our residential communities provide residents with support and programming designed specifically for graduate students. We offer live-in faculty and student staff, who act as valuable resources for students in our communities. These communities also offer the opportunity to better connect with the campus and to meet people from across California, the United States, and the world.

Fully furnished single and double rooms in two-, three-, and four-bedroom apartments are offered, as well as double and triple rooms in our brand new residence hall (South Campus Plaza) featuring private bathrooms. Each apartment has a complete kitchen and bath which are private to the residents of that unit. South Campus Plaza offers community kitchens, study rooms, and lounge areas throughout the building with Trader Joe's and other retail offerings on the street level.

Every on-campus option offers all-in-one billing to include garbage, high speed Internet, meals (if applicable), rent, television service, and water in one convenient bill. Residents do not need to provide furniture, set up Wi-Fi, or utilities, and can spend time focusing on studies, enjoying the campus, and all the community has to offer, such as access to the library, dining options, and campus events only steps away.

To begin completing a license agreement, log into the SDSU WebPortal. For more information about options and rates, visit <http://housing.sdsu.edu>, call 619-594-5742, or e-mail oha@mail.sdsu.edu.

International Student Center (ISC)

International Student Center
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 the cross-roads 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 more than 2,200 international students from more than 90 nations 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. In addition, the ISC invites faculty, staff, and the community to participate in the many events listed in the ISC calendar of intercultural activities. These include the Global Aztec Alliance, International Coffee Hours, international film festivals, International Peace Village, International Student Association, and intercultural workshops.

Study Abroad Programs

The International Student Center (ISC) provides services to all students who want to study abroad as part of their educational experience at SDSU. The SDSU Study Abroad office in the ISC serves as a study abroad resource center and acts as a window to the world for students beginning the study abroad 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. In addition, the ISC:

- Administers SDSU's reciprocal student exchange programs, providing various support services for participants in more than 110 agreements SDSU has signed with institutions around the world;
- Serves as SDSU's liaison with the CSU International Programs Office (see the CSU International Programs listing) that offers CSU students the traditional year of study abroad experience and coordinates all promotion, recruitment, selection, processing, and orientation for the participants from SDSU;
- Assists, in coordination with SDSU's Risk Management Program, with ensuring all SDSU students who study or travel in other countries 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;
- Plays a central role in SDSU's efforts to dramatically increase study abroad enrollment. The number of SDSU students studying abroad has increased more than 900 percent (from 167 to more than 3,000 students), ranking the university as 8th in the national overall for the number of students studying abroad (source: IIE 2015).

For more information about SDSU Study Abroad programs, contact the SDSU Study Abroad office at 619-594-2475.

The California State University International Programs (CSU IP)

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 (CSU IP) has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 20,000 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 study center abroad. CSU IP serves the needs of students in more than 100 designated academic majors. Affiliated with more than 50 recognized universities and institutions of higher education in 18 countries, CSU IP also offers a wide selection of study abroad destinations and learning environments.

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

Canada. Concordia University

Chile. Pontificia Universidad Católica de Chile

China. Peking University (Beijing)

Denmark. Danish Institute for Study Abroad

France. Institut Catholique de Paris, Institut Supérieur d'Electronique de Paris, Université d'Aix-Marseille (Aix-en-Provence), Université de Cergy-Pontoise, Universités de Paris I, III, IV, VI, VII, VIII, X, XI, XII, XIII, Université Paris-Est Marne-la-Vallée, Université d'Evry Val d'Essonne, Université de Versailles Saint-Quentin-en-Yvelines

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

Ghana. University of Ghana

Israel. University of Haifa

Italy. CSU Florence Study Center, Accademia di Belle Arti Firenze

Japan. Waseda University, University of Tsukuba

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

South Africa. Nelson Mandela Metropolitan University

South Korea. Yonsei University

Spain. Universidad Complutense de Madrid, Universidad de Granada, Universidad de Jaén

Sweden. Uppsala University

Taiwan. National Taiwan University

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

Students participating in CSU IP pay CSU tuition and program fees, and are responsible for airfare, accommodations, meals, and other personal expenses. Financial aid, with the exception of Federal Work-Study, is available to qualified students and limited scholarship opportunities are also available. All programs require students to maintain good academic and disciplinary standing; many programs are open to sophomores or graduate students. California community college transfer students admitted to a CSU campus are eligible to apply (to select programs) directly from their community colleges. Students must possess a current cumulative grade point average of 2.75 or 3.0, depending on the program, and must fulfill all coursework prerequisites. Additional program information and application instructions can be found on our website at <http://www.calstate.edu/ip>.

Office of the Student Ombudsman

Student Services East, Room 1105

619-594-6578

<http://www.studentaffairs.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 student ombudsman is an independent and impartial agent who helps individuals and groups seeking the resolution and correction of complaints. The student ombudsman acts as a liaison 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 non-discrimination laws. Should a complaint not be resolved at the referral level, the student ombudsman may act as a mediator 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 Ability Success Center

Calpulli Center, Room 3101

619-594-6473

http://go.sdsu.edu/student_affairs/sds

The Student Ability Success Center is dedicated to the following: empowering students with disabilities, ensuring they have access to appropriate support and services, and minimizing academic and physical barriers in order to promote retention and graduation. The center is responsible for providing academic accommodations for students with disabilities including, but not limited to, attention deficit disorder, deaf and hard-of-hearing, learning disabilities, physical and chronic disabilities, psychological disabilities, and visual impairments.

Services and accommodations may include housing, note-taking, real-time captioning, sign language interpreters, testing, and textbooks in accessible formats. At SDSU, students initiate contact with the center by providing appropriate documentation in order to determine eligibility.

In addition, the center has the high tech center, which offers computer workstations with assistive technology, hardware, and software. For students who may need additional support through academic coaching, peer mentoring, tutoring, and writing support, the center offers the TRIO-SSS Program, funded through a grant from the U.S. Department of Education. Internship and pre-employment services are available through Workability IV program for students who are U.S. Department of Rehabilitation students. Students with temporary disabilities may request assistance with cart service, note taking, or test taking

Student Health Services

Calpulli Center

619-594-4325

<http://shs.sdsu.edu>

Student Health Services provides basic medical care through board certified physicians, certified primary care nurse practitioners, licensed nurses, and other qualified personnel to regularly enrolled SDSU Students. All regularly enrolled SDSU students have prepaid a health fee. The health fee provides students with basic medical care and therefore does not waive requirements under the Affordable Care Act.

Student Health Services is located at Calpulli Center and is open 12 months of the year between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday, with the exception of campus holidays and other special occasions. Students experiencing a medical emergency should immediately call 911.

Appointments and After Hours Care

Students are encouraged to visit Health eConnection at <https://healthconnect.sdsu.edu> or call Student Health Services at 619-594-4325 to request appointments. When Student Health Services is closed, telephone advice is available from a registered nurse by calling 858-225-3105; however, for an emergency call 911.

First Aid

First aid is defined as one-time treatment that typically does not require a laboratory, pharmacy services, physician, or x-rays. Accidents requiring treatment and/or transportation to Student Health Services or a local hospital should be reported immediately to the University Police Department, 619-594-1991. Student Health Services provides first aid during normal operating hours to all persons while on the campus, or at campus activities, if a qualified health care provider is available and in attendance.

Services

Students typically gain access to most services by registering to use Health eConnection at <https://healthconnect.sdsu.edu>. Through this secure website students request appointments, upload immunization documents, and view health records. No one, on or off campus, other than Student Health Services staff, has access to medical record information without written permission from the student.

Some Student Health Services other than basic care may include additional fees. Charges associated with services are usually significantly lower than those found elsewhere. Student Health Services accepts California's Family PACT program designed to cover the costs of services to prevent unplanned pregnancies and protect the reproductive health of those who qualify. Student Health Services does not accept any other forms of insurance. Students are responsible for the cost of their health-care whether received at Student Health Services or at an outside facility. A community resource specialist is available in the Well-being and Health Promotion department to provide information and assistance. Questions regarding insurance coverage for specific 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.

Immunizations

Students may receive immunizations at Student Health Services for a reduced cost. For more information, visit the Student Health Services website at <https://shs.sdsu.edu> or call 619-594-4325.

Immunization Records. Immunization documentation should be submitted online through the secure Health eConnection website at <https://healthconnect.sdsu.edu>. Students who have not complied with CSU immunization requirements prior to the registration deadline may not be able to register for classes until they provide proof of immunity or receive MMR immunization.

Immunization Requirements. Students may fulfill immunization requirements by submitting medical documentation as proof of immunization online through the secure Health eConnection website at <https://healthconnect.sdsu.edu>. Positive laboratory evidence of immunity is also a way to prove immunization status. For more information, visit the Student Health Services website at <http://shs.sdsu.edu> or call 619-594-4325.

Measles, Mumps, and Rubella

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 two immunizations for measles and rubella given after the first birthday and after 1968. Students whose enrollment services records indicate graduation from a California public high school may be exempt from this requirement.

Hepatitis B

All new students who are 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 whose enrollment services records indicate graduation from a California public high school may be exempt from this requirement.

Meningococcal Disease

Each incoming freshman who will be residing in an on-campus residence hall will be required by the SDSU Office of Housing Administration to respond to an inquiry indicating that they have received information about meningococcal disease, the availability of vaccines 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. One vaccine is fairly effective against the majority of the strains (serogroups A, C, W, and Y) of this bacterium, but unfortunately its immunity effect declines over a few years. A second "booster" dose is recommended at between the ages of 16 to 18 for those students who received their first vaccination at age 15 or younger. A different vaccine, effective against meningococcal serogroup B, is recommended for high-risk individuals age 10 years or older, but may be administered to 16-23 year olds (preferably at ages 16-18). 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. Meningococcal vaccines are available at Student Health Services at a reduced cost.

Additional Requirements

Some students may be further required to present documentation to other campus officials. Students subject to this additional screening include students enrolled in dietetics, medical technology, nursing, physical therapy, student teaching, or fieldwork involving preschool-age children and/or school-age children or taking place in a hospital or health care setting. Questions should be directed to the responsible faculty or staff member in charge of the activity.

Noncompliance

Students who do not comply with this California Health and Safety Code during their first semester at SDSU will not be allowed to register for classes a second semester until they provide proof of immunity or begin the immunization series. Students who have not complied by the end of their third semester will no longer be able to attend SDSU.

Recommendations

Immunization from the following diseases may also protect students against potentially severe infections: chicken pox (varicella), diphtheria, hepatitis A, human papilloma virus (HPV), influenza (flu), mumps, pertussis (whooping cough), polio, and tetanus. Like measles, these too can be particularly harmful in college-aged persons. These immunizations are available at reduced cost at Student Health Services. 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 and a blood test is offered at reduced cost.

Student Health Advisory Committee (SHAC)

Students can offer important feedback about the scope of services and other critical issues relating to campus health services through membership on the Student Health Advisory Committee (SHAC). Members act as liaisons between the SDSU student body and Counseling and Psychological Services, Student Health Services, and Well-being and Health Promotion. SHAC helps to keep Student Health Services staff focused and current on major student health issues. Membership from all academic majors is encouraged. For information about becoming a member contact Student Health Services at 619-594-4325.

Medical Excuse Policy

SDSU Student Health Services will not provide medical excuses for short-term absences due to illness or injury. Students are instructed to contact their professor/instructor/coach in the event that they need to miss class, etc. due to an emergency, illness, or injury. All decisions about the impact of an absence, as well as any arrangements for making up work, rest with the professor/instructor/coach.

In circumstances when the illness or injury is prolonged (an absence of more than five days) and requires medical attention or hospitalization, Student Health Services may work with students to provide appropriate documentation. When a student is hospitalized or has a serious, ongoing illness or injury, SDSU Student Health Services will, at the student's request and with the student's consent, communicate with the student's academic adviser and/or the Student Ability Success Center.

Advance Health Care Directives

As a patient, you have the right to give instructions about your own health care. An advance health care directive enables you to name another individual such as a relative or other person as a healthcare representative or "agent" or to make health care decisions for you if you become incapable of making your own decisions or if you want someone else to make those decisions for you now even though you are still capable. The advance health care directive lets you designate a physician to be primarily responsible for your medical care and lets your physician, family, and friends know your health care preferences, including the types of special treatment you want or do not want, cardiopulmonary resuscitation, your desire for diagnostic testing, organ donation, and/or surgical procedures. It does not affect routine care for cleanliness and comfort, which must be given whether or not there is an advance directive. For further information, you may review the information provided at Advance Health Care Directive - California Department of Justice. We also recommend that you talk with your physician and your lawyer.

Student Life & Leadership

Conrad Prebys Aztec Student Union, Room 210

619-594-5221

<http://sll.sdsu.edu>

- **Commuter Life** – encourages students who do not live on campus to take steps to develop a sense of belonging to the SDSU community. Students driving to and from campus can find resources and support programs through the Commuter Resource Center, located on the second floor of the Conrad Prebys Aztec Student Union, and through commuter student learning communities. http://go.sdsu.edu/student_affairs/sll/commuterlife.aspx.
- **Fraternity and Sorority Life** – currently consists of more than 50 social fraternities and sororities, including both general and culturally based organizations, represented by four governing councils. Greek-letter social organizations create smaller communities within the larger university environment for the purposes of facilitating academic support, leadership development, and personal growth. Fraternities and sororities also offer students opportunities for alumni networking, campus involvement, community service, friendship, participation in social and recreational activities, and small group living. Membership recruitment drives (sometimes referred to as rush) occur at the beginning of each semester for most organizations, while others have ongoing intake processes. http://go.sdsu.edu/student_affairs/sll/greeklife.aspx.
- **Jeffrey W. Glazer Center for Leadership and Service** – offers programs and resources to SDSU students, faculty, staff, and community members interested in participating in community service and leadership development. The center offers certificate programs in both leadership and community service while providing workshops and seminars focused on leadership development, personal growth, and community service engagement. http://go.sdsu.edu/student_affairs/sll/leadership-home.aspx.
- **Student Organizations and Activities** – facilitates on-campus recognition for student organizations, implements policies and procedures with regard to student activities, and approves all on-campus activities, including fundraising events. For more information, visit http://go.sdsu.edu/student_affairs/sll/student-orgs.aspx.

Student Rights and Responsibilities

Student Services West, Room 1604

619-594-3069

<http://studentaffairs.sdsu.edu/srr>

The Center for Student Rights and Responsibilities 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 and/or the residence hall eviction process, which is initiated by the court system. One type of judicial action does not necessarily affect the other. In addition, sections of the Code of Conduct may be adjudicated regardless of location of incident.

Alleged campus-related violations include both academic and non-academic misconduct, specific misconduct in the surrounding community, specific misconduct regardless of location, off-campus community-sponsored or university events, and online sites.

To review information regarding the Standards for Student Conduct, the discipline process, privacy rights, and complaints procedures, visit <http://studentaffairs.sdsu.edu/srr>.

Testing Services

Student Services West, Room 2549

619-594-5216 / FAX: 619-594-5036

<http://testing.sdsu.edu>

Testing Services, within the Division of Student Affairs, supports and enhances student success by providing secure, high-quality test administration while maintaining academic integrity for SDSU students and the greater San Diego community. Testing Services is an important resource for the entire university community, supporting the academic and professional goals of students and faculty by administering and analyzing paper- and computer-based tests for the purposes of admission, class placement, credentials, and graduation requirements.

SDSU campus placement examinations include:

- California Government Examination;
- Chemistry Department Placement Examination;
- Grammar, Spelling and Punctuation test;
- Japanese Language Proficiency Examination;
- Liberal Studies Mathematics Proficiency Assessment;
- SDSU Mathematics Placement Assessment;
- Spanish Language Proficiency Examination;
- Writing Placement Assessment.

Community examinations include the ACT, GRE, LSAT, TEAS, and TOEFL, among other national examinations. Most reservations for national examinations are made through their respective websites.

Testing Services adheres to the professional standards and guidelines of the National College Testing Association (NCTA).

Well-being and Health Promotion

Calpulli Center, Room 3201

619-594-4133

<http://healthpromotion.sdsu.edu>

Well-being and Health Promotion provides health education and skill building opportunities to students through classes, engagement centers, and student organizations. Students receive health-related education, referrals and training, one-on-one education sessions led by professionals and peer educators, and topic-specific workshops. The staff includes a community resource specialist, health educators, and subject experts who offer education and information on alcohol and other drugs, consent and sexual violence prevention and intervention, helping others, nutrition, sexual health, sleep strategies, and understanding campus resources. Staff can also assist with off-campus referrals for medical care, understanding health policies, utilization of health care services, and referrals to county, federal, and state aid programs.

Services and programs include:

- Alcohol and other drug prevention education;
- Individual and small group health education workshops;
- Community resources and referrals;
- Gynecological orientation – includes information on pelvic examinations and birth control options;
- Health insurance assistance;
- Health outreach events and campaigns around campus;
- Peer Health Education (PHE) programs.

Special Programs and Services

Academic Computing

SDSU provides access to a large number of software packages including large research-oriented databases, Microsoft Office Suite (word processing, spreadsheets, presentations), programming languages, relational databases, and statistical software. E-mail accounts are provided to students and server accounts are available for those who want to create websites.

The university has more than 2,000 desktop computers located in 80 departmental/college computer laboratories. The largest laboratories, which are open to all students, are the Student Computing Hub located in Love Library, Room 200 (PCs, Macs, and printing) and the College of Arts and Letters Laboratory, located in Professional Studies and Fine Arts, Room 136 (PCs and printing). Outside of the laboratories, students may connect to the wireless network which covers the entire campus. Many SDSU instructors use the Blackboard learning management system to communicate with students, post grades, distribute materials, and facilitate learning activities beyond the classroom. Student accounts in Blackboard are automatically created upon enrollment and use the SDSUid to login. Access to courses in Blackboard occurs when instructors make their courses available to students. The Blackboard website is <http://blackboard.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 call the Alumni Office at 619-594-2586 or visit <http://www.sdsualumni.org>.

Associated Students of San Diego State University

Associated Students (A.S.) is a student-directed auxiliary of SDSU and is one of the largest student governance organizations in the CSU system. The auxiliary operates eight facilities, in addition to offering a multitude of programs and services that serve students, faculty, staff, and the SDSU community. Associated Students can be reached by calling 619-594-6555 or visiting <http://www.as.sdsu.edu>.

Student Government. There are a multitude of leadership opportunities through the Associated Students. Government Affairs is the representative voice for all SDSU students. Student government leaders ensure that the interests of SDSU students are heard, served, and met. The A.S. student leaders also serve as the board of directors for the A.S. Students who want to get involved are encouraged to visit the A.S. office in person or online to learn about available opportunities. For more information, call 619-594-6555 or visit <http://www.as.sdsu.edu/govt>. The A.S. office is located on the third floor of the Conrad Prebys Aztec Student Union.

Conrad Prebys Aztec Student Union. The Conrad Prebys Aztec Student Union is the first LEED (Leadership in Energy and Environmental Design) Double Platinum certified student union in the CSU and features numerous sustainable "green" building elements. The student union provides a vibrant and welcoming space for students through a variety of programs and services. Amenities include ARC Express (fitness center), Aztec Lanes (bowling and games center), Cal Coast Credit Union, Center for Intercultural Relations, dining options, free events for SDSU students, information center, Jeffrey W. Glazer Center for Leadership and Service, meeting spaces, student lounge, Student Organization Center, a 300-seat theatre, 11,500-square-foot multipurpose Montezuma Hall, and plenty of indoor and outdoor seating. To learn more about the Conrad Prebys Aztec Student Union or to get involved with the Aztec Student Union Board (ASUB), visit <http://aztecstudentunion.com>. To inquire about meeting space, call Union Programs and Services at 619-594-5278 or e-mail asmtgsvs@mail.sdsu.edu. For general information, call 619-594-6551.

SDSU Children's Center. The SDSU Children's Center, a quality service of Associated Students, provides an educational childcare program for children between six months and pre-kindergarten to five years of age. Priority for enrollment starts with SDSU students, followed by children and grandchildren of faculty and staff, and then children of SDSU alumni and the larger community as space is available. The center serves as the laboratory school for the Department of Child and Family Development in the College of Education. In addition, the center collaborates with campus departments to support academic research, observational learning and opportunities to link academic coursework with hands-on learning by working directly with children and families at the center. For more information call 619-594-7941, e-mail ccc_info@mail.sdsu.edu, or visit <https://childcare.sdsu.edu>.

Cal Coast Credit Union Open Air Theatre. 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. Built in 1934, this 4,800-seat amphitheatre has played host to sold out concerts, lectures, symphonic performances, and university events. Generations of guests have enjoyed this theatre's natural acoustics which complement the sound of all music genres. For event information, call 619-594-0234 or visit <http://calcoastopenairtheatre.com>.

Viejas Arena. Home to Aztec men's and women's basketball, Viejas Arena is San Diego's premier venue for everything from concerts to sporting events, family shows, conventions, conferences, and corporate and university events. This state-of-the-art, 12,000-seat facility is complete with award-winning acoustics and a distinctive outdoor concourse area. Viejas Arena features a full-service ticket office and TicketMaster location for events throughout California. Viejas Arena is adjacent to the Aztec Recreation Center in the heart of the SDSU campus with nearby parking. Call 619-594-0234 or visit <http://www.viejasarena.com> for more information.

Aztec Recreation. Aztec Recreation provides high quality programs, services and facilities that inspire active, healthy living and enhance the SDSU experience. As a department of Associated Students, Aztec Recreation manages seven on-campus facilities; Aztec Recreation Center (ARC), ARC Express, Aztec Aquaplex, Aztec Lanes, SDSU Recreation Field, tennis, and racquetball as well as the Mission Bay Aquatic Center (MBAC), an off campus water sports facility. An Aztec Recreation membership enables access to many of the programs including Group Fitness, Intramural Sports, Sport Clubs, bowling and indoor climbing and also includes access to the ARC, ARC Express, Aztec Aquaplex, tennis, and racquetball courts (<https://arc.sdsu.edu>).

Aztec Recreation Center (ARC). Aztec Recreation Center. The ARC is an 80,000-square-foot fitness and recreation facility with four multi-purpose gymnasiums for basketball, soccer and volleyball, two weight training rooms, a cardio room, a climbing wall, and two group fitness studios (<https://arc.sdsu.edu/arc/>).

Aztec Adventures. Aztec Adventures offers leadership development, education and adventures experiences through outing, team challenge, ENS and climbing programs (<https://aztecadventures.sdsu.edu/>).

Aztec Aquaplex. The Aquaplex is an outdoor aquatics and tennis facility located on the west side of campus with two large pools, a spa and 12 tennis courts. The facility is home to numerous Sport Club and Aztec Athletics teams (<https://arc.sdsu.edu/aquaplex/>).

ARC Express. ARC Express The ARC Express a 6,000-square-foot fitness center located on the third floor of the Conrad Prebys Aztec Student Union (<https://arc.sdsu.edu/arcexpress/>).

Aztec Lanes. Aztec Lanes is the SDSU bowling and games center located on the first floor of the Conrad Prebys Aztec Student Union. Featuring 12 bowling lanes, the facility also offers participants a lounge with billiards, table tennis and big-screen TVs (<https://arc.sdsu.edu/azteclanes/>).

ENS Credit Classes. Aztec Recreation partners with the SDSU Department of Exercise and Nutritional Sciences to provide one unit courses that promote lifelong fitness, wellness and recreational pursuits. Classes are available in water sports, outdoor skills, sports, fitness, dance and martial arts (<https://arc.sdsu.edu/creditclasses/>).

Intramural Sports. Intramural Sports Intramural Sports has opportunities to compete in a variety of team and individual sports through league, tournament and special event formats throughout the year (<https://arc.sdsu.edu/intramurals/>).

Mission Bay Aquatic Center (MBAC). The world-renowned Mission Bay Aquatic Center is Aztec Recreation's beachside instructional facility offering water sports classes, rentals, and special events. Every semester, hundreds of students earn university credit while learning to wakeboard, surf, stand up paddle, kayak, sail, row, or windsurf (<http://www.mbaquaticcenter.com>).

Recreational Field. The Recreation Field, located north of PS12, features state-of-the-art turf and lighting systems. The field hosts recreational sports activities including Aztec Recreation Intramural Sports and Sport Clubs and is available daily for drop-in play (<https://arc.sdsu.edu/recfield/>).

Recreational Sports. Recreational Sports offers racquetball courts, an Olympic lifting facility and a small mat room for martial arts classes.

Sport Clubs. The SDSU Sport Club program consists of 20 diverse and competitive collegiate teams with over 750 athletes. Sport Club teams compete in intercollegiate competitions at local, state, regional, and national levels and recruit both new and experienced student athletes (<https://arc.sdsu.edu/sportclubs/>).

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 13 sports for women (basketball, cross country, golf, lacrosse, rowing, 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 lacrosse, men's soccer, rowing, and water polo compete in the 11-member Mountain West Conference. Lacrosse is a member of the Mountain Pacific Sports Federation (MPSF); men's soccer is a member of the Pac12 Conference; rowing is a member of the American Athletic Conference; and water polo is a member of the Golden Coast Conference.

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 100,000 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. For more information please call 619-594-3019 or visit <http://www.goaztecs.com>.

Student Athlete Support Services

Aztec Athletics Center, Room 3029
619-594-3395

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.

Audiology Clinic and Speech-Language Clinic

Administered by the School of Speech, Language, and Hearing Sciences, the clinics provide assessment and remediation services for SDSU students, staff, faculty, and the community. In addition, the clinics offer opportunities for research, consultation, supervised field internships, continuing education, and other service activities.

In the Speech-Language clinic, comprehensive diagnostic and treatment programs are available for children and adults in the areas of aphasia, cerebral palsy, cleft palate, delayed speech/language development, fluency or articulation disorders, hearing loss, loss of communication function, and voice. Services are also provided 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.

In the Audiology Clinic, audiologic services for children and adults include hearing assessment, hearing aid evaluation and selection, assistive listening device evaluations, earmolds, hearing protection devices, hearing conservation services, and aural rehabilitation therapy.

The clinics are located at 5245 Campanile Drive, San Diego, CA 92182-1518 and can be reached at 619-594-7747.

Aztec Shops, Ltd.

(Campus Stores, Dining)
<http://www.aztecshops.com>

Aztec Shops, Ltd., founded in 1931, 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 on campus. Aztec Shops also operates selected other enterprises at San Diego State and at other colleges and universities. The corporation employs close to 150 full-time professionals and up to 825 part-time employees – mainly students – during the busiest times.

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 required and optional textbooks taught at SDSU. Textbooks are available to purchase or

Special Programs and Services

rent and many titles are available digitally. The bookstore's aztecology department offers academic discounts on Apple and PC products and software from Adobe, Microsoft, and others. Aztecology offers a wide array of services including hardware financing, a hardware trade-in program, and a free gaming center.

The SDSU Bookstore features an extensive selection of SDSU-licensed clothing and gifts, greeting cards, fiction and non-fiction books, gifts for the home, clothing in the latest trends, school supplies, and is the official stop for regalia needs. For more information, call 619-594-7525 or visit <http://www.shopaztecs.com>.

SDSU Dining. SDSU Dining has been providing quality food service for the SDSU campus since 1959. Dining proudly operates over 30 restaurants and food service outlets on campus including, Culinary Theater, Faculty-Staff Club, Farmers' Market, Garden at Cuicacalli Suites, Juice It Up, Salad Bistro, SoCal Chicken, University Towers Kitchen (UTK), Vinnie's, seven Aztec Market convenience stores, and three Starbucks locations campuswide. For more information on SDSU Dining, call 619-594-7640 or visit <http://www.eatatsdsu.com>.

Other operations. Other Aztec Shops operations include:

The Aztec Store – Aztec Shops operates The Campus Store, the bookstore at the SDSU branch campus in Calexico, CA.

Concessions – Aztec Shops operates the concession stands at Aztrack, Cal Coast Credit Union Open Air Theatre, Peterson Gymnasium, Tony Gwynn Stadium, and Viejas Arena.

Conference Services – Aztec Shops manages Conference Services, which offers athletics facilities, food and beverage, housing, and meeting spaces to groups interested in hosting their athletic camps, conferences, events, or meetings at SDSU for groups of all sizes and age ranges.

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.

SDSU Catering – SDSU Catering is the recognized caterer for all events on the SDSU campus.

University Towers – In November 2000, Aztec Shops purchased the well-known El Conquistador residence hall near the SDSU campus. Renamed University Towers, the facility is home to more than 500 students during the academic year.

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

Susan Baxter, Executive Director

Created in 1987 as a systemwide program, the California State University Program for Education and Research in Biotechnology (CSUPERB) funds innovative curriculum development, partners with the life science industry, and supports collaborative CSU student and faculty research. The CSUPERB program office is hosted at San Diego State University. CSUPERB promotes biotechnology workforce development by supporting evidence-based instructional practices, experiential learning, and programs for faculty and students at all 23 CSU campuses. The program involves students and faculty from agriculture, business and computer science departments, clinical sciences, engineering, life sciences, mathematics, and physical sciences.

CSUPERB organizes the annual CSU Biotechnology Symposium and serves as the official biotechnology liaison for the CSU with educational, government, industry, and philanthropic partners. CSUPERB also hosts the NSF-funded CSU I-Corps entrepreneurship education program.

CSUPERB recognizes that modern biotechnology preparation requires the integration of coursework, hands-on practice and participation in multi-disciplinary, entrepreneurship projects or team-based research. CSUPERB's competitive award, scholarship, and seed grant programs include Curriculum Development Grants, Crellin Pauling Student Teaching Awards, CSU I-Corps program, Don Eden Graduate Student Research Award, Entrepreneurial

Joint Venture Grants, Glenn Nagel Undergraduate Research Award, Howell-CSUPERB Research Scholars Awards, New Investigator Grants, Presidents Commission Scholar Awards, Research Development Grants, and student and faculty travel grant programs. In total, these programs award over \$800,000 to CSU faculty and students annually.

CSUPERB programs are administered by an Executive Director, a strategic planning council, and a faculty consensus group, involving faculty representatives from each CSU campus. The Presidents' Commission includes presidents from San Diego State University, Cal Poly Pomona, CSU East Bay, CSU San Marcos, CSU Northridge, and San Francisco State University. Visit the program websites at <http://www.calstate.edu/csuperb> and <http://www.csuperb.org/csuicorps> for more information.

Instructional Technology Services

Instructional Technology Services (ITS) provides support and leadership to the university in the effective uses of technologies for enhancing learning, facilitating research, and supporting strategic initiatives. ITS fulfills its mission by fostering collaboration and innovation with faculty and university stakeholders in the design, development, and effective use of learning environments and educational media.

ITS, located on the first floor of the Adams Humanities building, offers a variety of faculty-focused support services, including:

- Consultation, workshops, and collaboration via the SDSU Course Design Institute and Blended and Online Learning and Teaching (BOLT) program, which focus on the design and facilitation of effective learning experiences and environments, whether face-to-face, online, or hybrid;
- A Faculty Instructional Technology (FIT) Center located in Adams Humanities, Room 1109 that provides an informal environment for faculty consultations, collaboration, and development of instructional, professional, and research materials;
- Training and support for instructional software including:
 - » Blackboard (web-based learning management system that allows faculty to facilitate learning online);
 - » Course capture tools enabling faculty to record lectures from their classroom or office for students to view at their convenience;
 - » Respondus (assessment building software enhancing the question pool and quiz/test functions of Blackboard), and a custom browser that locks down the testing environment within Blackboard;
 - » Response system (or clickers) enabling greater interactivity in classrooms;
 - » Turnitin (writing support and plagiarism prevention software available through Blackboard);
 - » Web-based conference systems that enable voice interactivity and webinar capabilities through Blackboard or independently. These live, real-time, two-way audio/video communication systems can also be used for research and professional development purposes;
- Graphics, video, and multimedia consultation, design, and production;
- Assistance with design and development of instructional materials to be accessible and useful to diverse learners, including the redesign of course materials for online delivery and Universal Design for Learning (UDL);
- ITS-managed learning spaces, including five learning research studios (for faculty interested in teaching in a collaboration-minded, technology-rich space and taking an inquiry-oriented approach to teaching and learning with technology);
- The Learning Glass Studio, located in Student Services West, Room 2667, allows instructors to write lecture notes while maintaining face-to-face contact with students. The instructor writes normally, left to right, then the resulting lecture is recorded and the image is flipped so students can view the notes correctly through a monitor;

- The Virtual Immersive Teaching and Learning (VITaL) space offers a variety of augmented and virtual reality tools in a flexible learning environment. Promoting experimentation with curriculum design and the scholarship of teaching and learning, VITaL serves as an incubator to enable experiences that would be impossible or out of reach in a traditional learning environment. The VITaL Learning Research Studio is located in Adams Humanities, Room 1120;
- Instructional equipment loans (including laptop computers and video/data projectors, portable public address systems, digital cameras, camcorders, digital audio recorders, and much more).

For more information, call 619-594-4357 (4-HELP) or go to <http://its.sdsu.edu>.

Instructional Services on the Callexico campus can be accessed by calling 760-768-5545 or going to East Faculty, Room 124C. On the Brawley campus, faculty members need to check with the coordinator who can be reached by calling 760-768-5787 or by going to the Administrative Office, Room 122.

Smart Classrooms

For instruction using technologies, smart classrooms provide user-friendly, technology-rich equipment, and presentation systems. Each classroom system includes a fixed instructor podium allowing access to the following:

- Mac and Windows computers;
- Connectivity for a laptop or tablet computer;
- DVD or Blu-ray disc player;
- Visual presenter/document camera for projection of print and three-dimensional materials.

Projection is achieved via LCD video/data projector or large-screen, high-definition televisions. In larger lecture halls, a public address system with wireless microphone unit and assistive listening device are included.

Today, approximately 98% of the teaching spaces on campus are considered smart classrooms. Requests for smart classrooms should be made through your department or school administrative coordinator.

Office of International Programs

The Office of International Programs has 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 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 and to support efforts to become a global university, SDSU has a continuing program of faculty exchanges with partner universities worldwide. Over 150 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.

Parking and Transportation

When possible, carpooling or use of alternate modes of transportation is recommended for the commute to campus.

Metropolitan Transit System's Green Line trolley and seven bus routes (11, 14, 115, 215, 856, 936, 955) conveniently connect the San Diego metropolitan area with service to the San Diego State University Trolley Station and Transit Center. Monthly and semester student trolley and bus passes can be purchased at the Viejas Arena Ticket Office.

Further information concerning Metropolitan Transit trolley and bus routes, fares, and services can be found at <https://www.sdmts.com>. SDSU partners with Zipcar and Zimride for car sharing and carpool services in addition to the city's iCommute program. For more information, visit <http://www.zipcar.com/universities/san-diego-state-university>, <http://www.zimride.com/sdsu>, and <http://www.icommutesd.com>.

On-campus parking is by permit only and overnight parking requires a day/night use permit. Purchase or possession of a parking permit does not guarantee a parking space and parking is limited and available on a first come, first serve basis. Parking is located on the perimeter of the campus, with the remote parking serviced by free shuttle vans weekday evenings (Monday through Thursday) during the academic year. Major events at Viejas Arena may require parking location adjustment.

Visitors are directed to the Parking Information Booth at the College Avenue entrance to the campus for directions to several available pay parking lots. Look for PayByPhone signage at select locations to use this phone app in lieu of a pay station. Permits may be purchased ahead of time at <https://aztecs.t2hosted.com>, with the ability to print the permit prior to your arrival. For further information on parking at the San Diego campus, contact Parking and Transportation Services, 619-594-6671. For visitor parking at the Imperial Valley Campus, call 760-768-5500.

San Diego State University Research Foundation

Incorporated in 1943, San Diego State University Research Foundation is an auxiliary organization authorized by the Education Code of the State of California. It is a nonprofit corporation chartered to augment the educational, research, and community services objectives of the university. SDSU Research Foundation serves the university in the following major areas:

- Assisting faculty and staff in developing and administering federal, state, and privately funded projects.
- Seeking funding sources, offering grant-related workshops, assisting with proposal development and submission, and interpreting agency guidelines and policies.
- Developing project budgets, obtaining university approvals, and negotiating sponsored grant and contract awards.
- Assisting with staff recruitment, and purchasing support for funded projects.
- Providing technology transfer services, protecting intellectual property, commercializing technology developed at the university, and assisting spin-out companies based on SDSU inventions.
- Identifying, acquiring, and managing real property in support of sponsored programs not housed in university facilities.
- Accounting and financial reporting support for research and project funds, scholarships, institutes, and The Campanile Foundation.

SDSU Research Foundation is located in the Gateway Center at 5250 Campanile Drive. More information is available at <http://www.foundation.sdsu.edu> or by calling 619-594-1900.

San Diego State University Press

As an independent scholarly press housed in San Diego State University's College of Arts and Letters, San Diego State University Press publishes works of original research, as well as other dynamic academic and creative works that further the intellectual mission of the university. Founded in the late 1950s, San Diego State University Press is the oldest university press in the California State University system. Today, SDSU Press is guided by an internal editorial board made up of seven scholars drawn from faculty within SDSU's College of Arts and Letters and an external editorial board of eight scholars from leading universities across the country. San Diego State University Press's various publication programs and imprints include: *Amatl Comix*, *Baja California Literature in Translation*, *Binational Press/Editorial binacional*, *Code[x] Books*, *Hyperbole Books*, *The Institute for Regional Studies of*

the Californias, Psychoanalysis on the Couch, and SurText. The current focus of the press is avant-garde aesthetics, art history, contemporary intellectual history, critical theory, cultural studies, ethnic studies, graphic narrative, Latin America and the United States-Mexico border, post-modernism, post-structuralism, and regional studies of the Pacific Rim and the Pacific Southwest. In addition to books, the press also has a journals division that oversees *pacificREVIEW: A West Coast Arts Review Annual* and *Poetry International*. San Diego State University Press policy is controlled by its internal editorial board and its director, appointed by the SDSU senate. Financial accounting and coordination are provided by the San Diego State University Research Foundation.

San Diego State University Writing Center

The SDSU Writing Center promotes student success with writing across the university. The center works with undergraduate and graduate students from all disciplines to develop and extend knowledge and performance of academic literacies; through coaching from tutors who engage in conversation about writing and broaden understanding of audience, genre, language, and context. The center also works with faculty to promote success in writing instruction, support teaching of writing across the university, conduct research into writing, tutoring, and understanding of the teaching of writing on campus.

Student support is provided through the following:

- One-to-one sessions with tutors to discuss any type of academic writing;
- Workshops to familiarize students with different aspects of writing;
- Classroom visits to explain how students can best make use of the center;
- Reference materials about academic writing.

Faculty support is available through the following:

- Consultation regarding designing writing assignments to help students achieve course learning outcomes;
- Professional development workshops for faculty and graduate teaching assistants.

The center is open when classes are in session. Hours and dates of operation are available at <http://writingcenter.sdsu.edu>. Information about appointments, workshops, and other services can also be found at the website. The center is located in Love Library, Room 1103, and can be reached at 619-594-3543.

Joan and Art Barron Veterans Center

The Joan and Art Barron Veterans Center (JABVC), located in Student Services West, Room 1661, is the first veteran's resource center in the California State University system. The center operates as the primary and initial resource for most military affiliated services at San Diego State University. Keeping to our motto of "serving those who served," the primary mission of the staff is to assist all military connected students – veteran, active duty, reserve, guard, and military spouses and children – with the following applicable federal and/or state Department of Veterans Affairs (VA) educational benefits:

- California Department of Veterans Affairs (CDVA) College Fee Waiver for Veterans' Dependents (Cal-Vet Fee Waiver);
- Chapter 30 (Montgomery GI Bill – Active Duty);
- Chapter 31 (Vocational Rehabilitation and Employment [VR&E]);
- Chapter 33 (Post-9/11 GI Bill);
- Chapter 35 (Dependents Educational Assistance);
- Chapter 1606 (Montgomery GI Bill – Selected Reserve);
- Chapter 1607 (Reserve Educational Assistance Program);
- Marine Gunnery Sergeant John David Fry Scholarship.

Federal VA Education Benefits

In order to utilize federal VA education benefits (Chapters 30, 31, 33, 35, 1606, 1607, and Fry Scholarship), students must be matriculated at SDSU (admitted into a program of study), applied for admission to a program of study (some restrictions apply), or be a "guest student" from another institution of higher learning (courses from SDSU must be transferrable to the parent school). Additionally, students must ensure the following actions are taken in order to utilize federal VA education benefits:

Chapter 30

- Provide the JABVC with a signed **VA Form 22-1995** the first semester attending SDSU and/or if changing a major.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.

Chapter 31

- Ensure the VR&E counselor provides the JABVC with an up-to-date **VA Form 28-1905** indicating the program of study and any specific guidelines.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.
- Obtain the necessary documentation from the JABVC for books, parking pass, and other approved items after notification from the VA that the term has been certified.

Chapter 33

- Provide the JABVC with a copy of the **Certificate of Eligibility** in order to have tuition and fees **deferred**. Without this document, students may be required to pay tuition and fees before registering for classes.
- Provide the JABVC with a signed **VA Form 22-1995** the first semester attending SDSU and/or if changing a major.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.

Chapter 35 (Dependents Educational Assistance)

- Provide the JABVC with a signed **VA Form 22-5495** the first semester attending SDSU and/or if changing a major.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.
- Additionally, the **VA Claim Number** (with assigned suffix) must be indicated on the **Student Responsibility Agreement**.

Chapter 1606 (Montgomery GI Bill – Selected Reserve)

- Provide the JABVC with a signed **VA Form 22-1995** the first semester attending SDSU and/or if changing a major.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.

Chapter 1607 (Reserve Educational Assistance Program)

- Provide the JABVC with a signed **VA Form 22-1995** the first semester attending SDSU and/or if changing a major.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.

Marine Gunnery Sergeant John David Fry Scholarship

- Provide the JABVC with a copy of the *Certificate of Eligibility* in order to have tuition and fees *deferred*. Without this document, students may be required to pay tuition and fees before registering for classes.
- Provide the JABVC with a signed **VA Form 22-1995** the first semester attending SDSU and/or if changing a major.
- Provide the JABVC with a **Student Responsibility Agreement** every semester after registering for classes. Without this agreement, the VA will not be notified that the student wishes to use benefits.

Additionally, the following conditions to the usage of federal VA education benefits apply:

- All classes must be required for the degree objective and must not have previously been successfully completed. Refer to your degree evaluation, graduate program of study, graduate student worksheet, SDSU Academic Advising Center, and/or your department adviser to ensure all classes are applicable towards your degree objective. Deviations from the required classes must be approved by an individual authorized to make substitutions (i.e. department adviser, department chair, dean, etc.).
- Federal law requires any changes in enrollment status that may affect VA education benefits be reported. Any changes to your class schedule (i.e. adds/drops) may have an impact on your VA education benefits. If you change your schedule, notify the JABVC as soon as possible to avoid possible retroactive loss of benefits. Unauthorized withdrawal from courses may result in retroactive loss of benefits and a potential debt to the VA and/or university.
- Students placed on academic probation may continue to utilize VA education benefits for not more than two semesters. If the academic probation is carried into a third semester, the student will not be certified for VA benefits. Students that are on or facing academic probation should contact the JABVC for possible resources to improve their academic progress.
- If you change your major, you must provide the JABVC with a signed copy of **VA Form 22-1995** (**VA Form 22-5495** for Ch. 35). If you add a second major or more than one minor, you will need to provide the JABVC with a copy of your degree evaluation from the Office of Advising and Evaluations. Request this early as it can take several weeks to a few months for it to be generated.
- If you are not rated at 100% under Chapter 33 (Post-9/11 GI Bill), your portion of tuition and fees must be paid by the schedule adjustment deadline each semester. If you pay tuition and fees that are covered by the GI Bill, your refund will be processed in accordance with SDSU policy and will be refunded after payment is received by the university from the VA.
- To avoid possible overpayment by the VA and additional unexpected costs to the student, all VA benefit users (especially Post 9/11 GI Bill [Ch. 33]) are encouraged to keep track of their remaining entitlement. This information is sent each semester to the student by the VA and can be obtained from <http://www.ebenefits.va.gov> or by calling 888-442-4551.
- The Post-9/11 GI Bill will pay in-state tuition (up to the percentage at which the student is rated), provide a book stipend of approximately \$42/unit (capped at \$1,000 per academic year), and provide a housing stipend based on the SDSU zip code and calculated at the E-5 with dependents rate established by the Department of Defense.

- Federal law requires the VA to be the last payer for tuition and fees. Chapter 33 and Fry Scholarship benefit users will have financial aid (i.e. grants, loans, scholarships, etc.) specifically awarded for tuition and fees applied first towards their tuition and fee balance with the university. The VA will pay the difference up to the percentage at which the student is rated. The JABVC will report tuition to the VA at the beginning of the semester as \$0.00 in order to allow applicable housing and book stipends to be paid without delay due to factoring out applicable financial aid. The final tuition amount will be reported to the VA later in the semester for payment to SDSU. Students may receive occasional notifications from the university that their tuition has not been paid. These can generally be disregarded provided the student has been certified to the VA and rated at 100% under the Post 9/11 GI Bill. For questions, students should contact the JABVC staff.

Out-of-State Residency

Subject to pending or new legislation, non-resident students may have an additional fee per unit which is not covered by the GI Bill. Students utilizing Chapter 30 or 33 may qualify for an exemption of the non-resident fees provided:

- The veteran using the benefit or who transferred the benefit to a dependent spouse or child (Chapter 33 only) separated from active duty within 36 months of the first day the veteran or dependent starts classes;
- the dependent spouse or child using Chapter 33 transferred to them may be eligible for an out-of-state fee exemption while the service member is still on active duty;
- the period of active duty was/is 90 days or longer;
- the veteran or dependent provides SDSU with a copy of the applicable DD-214 showing the date of separation (not required for dependents of active duty personnel);
- the veteran or dependent provides SDSU with a copy of the *Certificate of Eligibility* showing entitlement to Chapter 30 or 33;
- other supporting documentation may be required as education code, legislation, statute, etc. are updated.

**California Department of Veterans Affairs (CDVA)
College Fee Waiver for Veterans' Dependents
(Cal-Vet Fee Waiver)**

The Cal-Vet Fee Waiver benefit waives the mandatory systemwide (California State University, University of California, and California Community College systems) tuition and fees, but the student is still responsible for the campus mandatory fees every semester. Students utilizing the Cal-Vet Fee Waiver Plan A, cannot receive concurrent benefits under Chapter 35, Dependents Education Assistance. Additionally, the waiver does not cover the expense of books, parking, room and board, and may not be applied towards tuition and fees paid through the College of Extended Studies. To qualify, students must meet residency requirements as determined by SDSU, in addition to other qualifying criteria. For additional information on establishing residency, students should contact the Office of the Registrar. Students using the Cal-Vet Fee Waiver must provide a copy of the approval letter to the JABVC every academic year (the letter will cover fall, spring, and summer terms). Applications for the waiver must be submitted to the nearest county veterans service office. For more information about applying for the Cal-Vet Fee Waiver, visit <http://www.cdva.ca.gov>.

Special Programs and Services

Non-College Degree Programs and External Degrees

Non-college degree (NCD) programs (i.e. certificates and credentials) can be certified for federal VA education benefits if the program has been approved and is listed on the Web Enabled Approval Management System (WEAMS). Programs not listed cannot be certified for federal VA benefits. All NCD programs listed in the SDSU General Catalog or Graduate Bulletin and which are approved on WEAMS may be certified for federal VA education benefits through the JABVC following the same procedures listed above. External degree programs may also be certified for federal VA benefits through the JABVC. Students should contact the JABVC staff to ensure their requested NCD program or external degree program is approved for certification before entering into the program. The Cal-Vet Fee Waiver will not waive tuition for programs offered through the College of Extended Studies.

College of Extended Studies

Some programs offered specifically through the College of Extended Studies may be certified for VA benefits. Students are encouraged to contact JABVC staff for additional information about policy, program applicability, and certification procedures through the College of Extended Studies.

San Diego State University – Imperial Valley Campus

Students attending the SDSU Imperial Valley Campus in Calexico, California should contact the SDSU IVC assistant dean for student affairs at 760-768-5502 for the latest information on certification procedures for federal/state VA education benefits.

Additional Resources and Information

In addition to assistance with educational benefits, several other programs and resources are available for eligible students. These include, but are not limited to:

- Priority registration for eligible military students beginning the second semester of attendance (for more information, contact the Office of the Registrar);
- A one-unit transition class (not eligible for VA benefit certification) for newly enrolled military affiliated students to provide key information about student support services at SDSU;
- Access to The Jack McGrory Bunker - a student lounge within the JABVC in which all military affiliated students can rest, relax, study, and interact with other students before, between, or after classes;
- Access to the SDSU VetSuccess on campus counselor who provides full-time assistance on all VA related issues;
- Participation in the VA work-study program allowing eligible students to work part-time while attending school (dependent upon staffing needs);
- Assistance with the VA tutorial assistance program;
- Use of the first on-campus student veterans house in the nation, affording all military affiliated students a place to study, relax, and interact with other students with similar backgrounds;
- Priority access to designated veterans living spaces on campus through the fraternity row property management office;
- Partnership with the Student Veterans Organization at SDSU which represents the cultural niche of the military student body;
- Partnership with the Veterans Alumni Organization at SDSU which provides mentorship, advice, and guidance from former military students to those currently attending;
- Access to veteran and military affiliated scholarships;
- Access to military specific career transition programs to assist with internships, job openings, and career opportunities.

Active duty military, veterans, and military spouses who are upper division transfers may receive additional consideration for admission. For more information, contact the military liaison officer at 619-594-0834.

Points of Contact

Joan and Art Barron Veterans Center

Student Services West, Room 1661
<http://www.sdsu.edu/veterans>
veterans@sdsu.edu
619-594-5813

California Department of Veterans Affairs

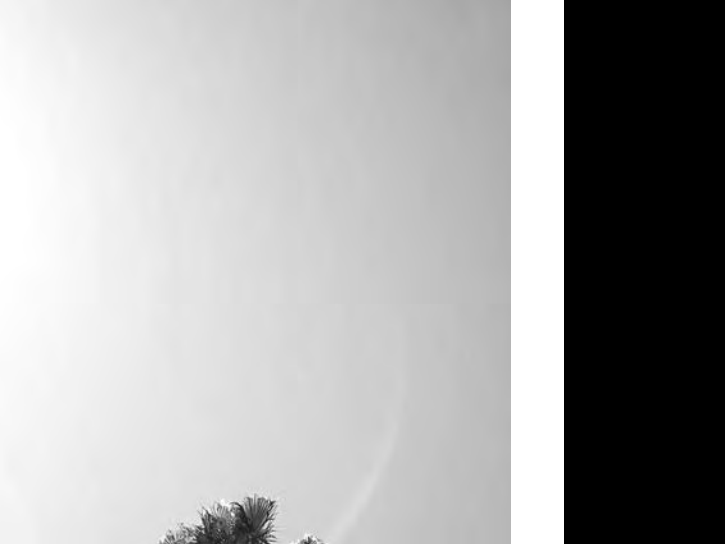
<http://www.cdva.ca.gov>

Department of Veterans Affairs

<http://www.benefits.va.gov/gibill>
<http://www.ebenefits.va.gov>
888-442-4551

Web Enabled Approval Management System (WEAMS)

<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>



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PART

University Policies

University Policies

Student Responsibility for Bulletin Information

Students are held individually responsible for the information contained in this bulletin. Although the Division of Graduate Affairs attempts to preserve requirements for students subject to this bulletin, information contained herein is 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. All students beginning graduate study at San Diego State University after August 2017 will be required to follow the procedures and regulations stated in the 2017-18 edition of the Graduate Bulletin.

If a student was admitted to a graduate degree curriculum at SDSU prior to that date and has been enrolled in one or more courses during each consecutive semester since first enrolling as a graduate student, or if the student's attendance has not been interrupted by more than two consecutive semesters, students will be held responsible for the regulations in effect at the time the official master's degree program of study is approved.

Changes on Rules and Policies

Although every effort has been made to assure the accuracy of the information in this bulletin, students and others who use this bulletin 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 a publication of this size 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 publication 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 bulletin 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 and the California 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 certain student records maintained by the campus and the release of such records. The law provides that the campus must give students access to most 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 through the SDSU Office of the Registrar website at <http://arweb.sdsu.edu/es/registrar/privacy.html>.

Among the types of information included in the campus statement of policies and procedures are: (1) the types of student records maintained and the information they contain; (2) the official responsible for maintaining each type of record; (3) the location of access lists indicating persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) student access rights to their records; (6) the procedures for challenging the content of student records; (7) the cost to be charged for reproducing copies of records; and (8) the right of the student to file a complaint with the Department of Education. The Department of Education has established an office and review board to investigate complaints and adjudicate violations. The designated office is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202-5920.

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, e-mail address, photograph, place and date of birth, grade level, enrollment status, previous educational institution attended, and information related to participation in athletics, San Diego State University has a practice of not routinely releasing this information. The above designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying what information the student requests not be released. Students are given an opportunity to restrict the release of "directory information" about themselves by accessing <http://www.sdsu.edu/portal>.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons have responsibilities in the campus' academic, administrative or service functions and have reason for accessing student records associated with their campus or other related academic responsibilities. Student records will be disclosed to the Chancellor's Office of the CSU in order to conduct research, to analyze trends, or to provide other administrative services on behalf of the CSU. 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 and Complaint Procedures

The Center for Student Rights and Responsibilities, 619-594-3069, and the Office of Employee Relations and Compliance, 619-594-6464, have been designated to coordinate the efforts of SDSU to comply with all applicable federal and state laws prohibiting discrimination on these bases. CSU Executive Order 1097, revised October 5, 2016, (<http://www.calstate.edu/EO/EO-1097-rev-10-5-16.pdf>) (or any successor executive order) is the system-wide procedure for all complaints of discrimination, harassment or retaliation made by students against the CSU, a CSU employee, other CSU students or a third party.

Protected Status: Genetic Information, Marital Status, Medical Condition, Nationality, Race or Ethnicity (including color or ancestry), Religion or Religious Creed, and Veteran or Military Status

The California State University does not discriminate on the basis of age, genetic information, marital status, medical condition,

nationality, race or ethnicity (including color and ancestry), religion (or religious creed), and veteran or military status – as these terms are defined in CSU policy – in its programs and activities, including admission and access. Federal and state laws, including Title VI of the Civil Rights Act of 1964 and the California Equity in Higher Education Act, prohibit such discrimination.

Protected Status: Disability

The California State University does not discriminate on the basis of disability (physical and mental) – as this term is defined in CSU policy – in its programs and activities, including admission and access. Federal and state laws, including sections 504 and 508 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, prohibit such discrimination. Students should address inquiries concerning San Diego State University's compliance with all relevant disability laws to the director of the Student Ability Success Center, Calpulli Center, Room 3101, San Diego State University, CA 92182, or call 619-594-6473 (TDD: 619-594-2929).

Genetic Information

The Genetic Information Nondiscrimination Act of 2008 (GINA) prohibits employers and other entities covered by GINA Title II from requesting or requiring genetic information of an individual or family member of the individual, except as specifically allowed by this law. "Genetic information" as defined by GINA, includes an individual's family medical history, the results of an individual's or family member's genetic tests, the fact that an individual or an individual's family member sought or received genetic services, and genetic information of a fetus carried by an individual or an individual's family member or an embryo lawfully held by an individual or family member receiving assistive reproductive services.

Protected Status: Gender (or sex), Gender Identity (including transgender), Gender Expression and Sexual Orientation

The California State University does not discriminate on the basis of gender (or sex), gender identity (including transgender), gender expression, or sexual orientation – as these terms are defined in CSU policy – in its programs and activities, including admission and access. Federal and state laws, including Title IX of the Education Amendments of 1972, prohibit such discrimination. The California State University is committed to providing equal opportunities to all CSU students in all campus programs, including intercollegiate athletics.

Title IX of the Education Amendments of 1972 protects all people regardless of their gender, gender identity, gender expression or sexual orientation from gender discrimination, which includes sexual harassment and violence:

- **Sex Discrimination** means an adverse action taken against a student by the CSU, a CSU employee, or another student because of gender or sex (including sexual harassment, sexual misconduct, domestic violence, dating violence, and stalking) that is perpetrated against an individual on a basis prohibited by Title IX of the Education Amendments of 1972, 20 U.S.C. §1681 et seq., and its implementing regulations, 34 C.F.R. Part 106 (Title IX); *California Education Code* §66250 et seq., and/or *California Government Code* §11135.
- **Sexual Harassment**, a form of sex discrimination, is unwelcome verbal, nonverbal, or physical conduct of a sexual nature that includes, but is not limited to, sexual advances, requests for sexual favors, and any other conduct of a sexual nature where:
 1. Submission to, or rejection of, the conduct is explicitly or implicitly used as the basis for any decision affecting a complainant's academic status or progress, or access to benefits and services, honors, programs, or activities available at or through the university; or
 2. The conduct is sufficiently severe, persistent or pervasive that its effect, whether or not intended, could be considered by a reasonable person in the shoes of the complainant, and is in fact considered by the complainant, as limiting his or her ability to participate in or benefit from the services, activities or opportunities offered by the university; or

3. The conduct is sufficiently severe, persistent or pervasive that its effect, whether or not intended, could be considered by a reasonable person in the shoes of the complainant, and is in fact considered by the complainant, as creating an intimidating, hostile or offensive environment.

Sexual harassment could include being forced to engage in unwanted sexual contact as a condition of membership in a student organization; being subjected to video exploitation or a campaign of sexually explicit graffiti; or frequently being exposed to unwanted images of a sexual nature in a classroom that are unrelated to the coursework.

Sexual harassment also includes acts of verbal, non-verbal or physical aggression, intimidation or hostility based on gender or sex-stereotyping, even if those acts do not involve conduct of a sexual nature.

CSU Executive Order 1097 covers unwelcome conduct of a sexual nature. While romantic, sexual, intimate, personal or social relationships between members of the university community may begin as consensual, they may evolve into situations that lead to sexual harassment or sexual misconduct, including dating or domestic violence, or stalking, subject to this policy. Claiming that the conduct was not motivated by sexual desire is not a defense to a complaint of harassment based on gender.

- **Sexual Misconduct:** All sexual activity between members of the university community must be based on affirmative consent. Engaging in any sexual activity without first obtaining affirmative consent to the specific activity is sexual misconduct, whether or not the conduct violates any civil or criminal law. Sexual activity includes, but is not limited to, kissing, touching intimate body parts, fondling, intercourse, penetration of any body part, and oral sex. It also includes any unwelcome physical acts, such as unwelcome sexual touching, sexual assault, sexual battery, rape, and dating violence. When based on gender, domestic violence or stalking also constitutes sexual misconduct. Sexual misconduct may include using physical force, violence, threat or intimidation, ignoring the objections of the other person, causing the other person's intoxication or incapacitation through the use of drugs or alcohol, or taking advantage of the other person's incapacitation (including voluntary intoxication) to engage in sexual activity. Men as well as women can be victims of these forms of sexual misconduct. Sexual activity with a minor is never consensual when the complainant is under 18 years old, because the minor is considered incapable of giving consent.
- **Sexual Assault** is a form of sexual misconduct and is an attempt, coupled with the ability, to commit a violent injury on the person of another because of that person's gender or sex.
- **Sexual Battery** is a form of sexual misconduct and is any willful and unlawful use of force or violence upon the person of another because of that person's gender or sex as well as touching an intimate part of another person against that person's will and for the purpose of sexual arousal, gratification, or abuse.
- **Rape** is a form of sexual misconduct and is non-consensual sexual intercourse that may also involve the use of threat of force, violence, or immediate and unlawful bodily injury or threats of future retaliation and duress. Any sexual penetration, however slight, is sufficient to constitute rape. Sexual acts including intercourse are considered non-consensual when a person is incapable of giving consent because s/he is incapacitated from alcohol and/or drugs, is under 18 years old, or if a mental disorder or developmental or physical disability renders the person incapable of giving consent. The respondent's relationship to the person (such as family member, spouse, friend, acquaintance, or stranger) is irrelevant. (See complete definition of consent below.)
- **Acquaintance Rape** is a form of sexual misconduct committed by an individual known to the victim. This includes a person the victim may have just met; i.e., at a party, introduced through a friend, or on a social networking website. (See above for definition of rape.)

• **Affirmative Consent** means an informed, affirmative, conscious, voluntary, and mutual agreement to engage in sexual activity. It is the responsibility of each person involved in the sexual activity to ensure that s/he has the affirmative consent of the other participant(s) to engage in the sexual activity. Lack of protest or resistance does not mean consent nor does silence mean consent. Affirmative consent must be voluntary, and given without coercion, force, threats, or intimidation.

» The existence of a dating or social relationship between those involved, or the fact of past sexual activities between them, should never by itself be assumed to be an indicator of affirmative consent. A request for someone to use a condom or birth control does not, in and of itself, constitute affirmative consent.

» Affirmative consent can be withdrawn or revoked. Consent to one form of sexual activity (or sexual act) does not constitute consent to other forms of sexual activity. Consent given to sexual activity on one occasion does not constitute consent on another occasion. There must always be mutual and affirmative consent to engage in sexual activity. Consent must be ongoing throughout a sexual activity and can be revoked at any time, including after penetration. Once consent is withdrawn or revoked, the sexual activity must stop immediately.

» A person who is incapacitated cannot give affirmative consent. A person is unable to consent when s/he is asleep, unconscious, or is incapacitated due to the influence of drugs, alcohol, or medication so that s/he could not understand the fact, nature, or extent of the sexual activity. A person is incapacitated if s/he lacks the physical and/or mental ability to make informed, rational decisions.

» Whether an intoxicated person (as a result of using alcohol or other drugs) is incapacitated depends on the extent to which the alcohol or other drugs impact the person's decision-making capacity, awareness of consequences, and ability to make fully informed judgments. A person's own intoxication or incapacitation from drugs or alcohol does not diminish that person's responsibility to obtain affirmative consent before engaging in sexual activity.

» A person with a medical or mental disability may also lack the capacity to give consent.

» Sexual activity with a minor (a person under 18 years old) is not consensual, because a minor is considered incapable of giving legal consent due to age.

» It shall not be a valid excuse that a person affirmatively consented to the sexual activity if the respondent knew or reasonably should have known that the person was unable to consent to the sexual activity under any of the following circumstances:

» The person was asleep or unconscious;

» The person was incapacitated due to the influence of drugs, alcohol, or medication, so that the person could not understand the fact, nature, or extent of the sexual activity;

» The person was unable to communicate due to a mental or physical condition.

» It shall not be a valid excuse that the respondent believed that the person consented to the sexual activity under either of the following circumstances:

» The respondent's belief in affirmative consent arose from the intoxication or recklessness of the respondent;

» The respondent did not take reasonable steps, in the circumstances known to the respondent at the time, to ascertain whether the person affirmatively consented.

• **Consensual Relationship** means a sexual or romantic relationship between two persons who voluntarily enter into such a relationship. While sexual and/or romantic relationships between members of the university community may begin as consensual, they may evolve into situations that lead to discrimination, harassment, retaliation, sexual misconduct, dating or domestic violence, or stalking.

» A university employee shall not enter into a consensual relationship with a student or employee over whom s/he exercises direct or otherwise significant academic, administrative, supervisory, evaluative, counseling, or extracurricular authority. In the event such a relationship already exists, each campus shall develop a procedure to reassign such authority to avoid violations of this policy.

» This prohibition does not limit the right of an employee to make a recommendation on the personnel matters concerning a family or household member where the right to make recommendations on such personnel matters is explicitly provided for in the applicable collective bargaining agreement or MPP/confidential personnel plan.

• **Domestic Violence** is abuse committed against someone who is a current or former spouse, current or former cohabitant, someone with whom the respondent has or had a dating or engagement relationship, or a person similarly situated under California domestic or family violence law. Cohabitant means two unrelated persons living together for a substantial period of time, resulting in some permanency of relationship. It does not include roommates who do not have a romantic, intimate, or sexual relationship. Factors that may determine whether persons are cohabiting include, but are not limited to (1) sexual relations between the parties while sharing the same living quarters, (2) sharing of income or expenses, (3) joint use or ownership of property, (4) whether the parties hold themselves out as spouses, (5) the continuity of the relationship, and (6) the length of the relationship. For purposes of this definition, "abuse" means intentionally or recklessly causing or attempting to cause bodily injury or placing another person in reasonable apprehension of imminent serious bodily injury to himself or herself, or another. Abuse does not include non-physical, emotional distress, or injury.

• **Dating Violence** is abuse committed by a person who is or has been in a social or dating relationship of a romantic or intimate nature with the victim. This may include someone the victim just met; i.e., at a party, introduced through a friend, or on a social networking website. For purposes of this definition, "abuse" means intentionally or recklessly causing or attempting to cause bodily injury or placing another person in reasonable apprehension of imminent serious bodily injury to himself or herself, or another. Abuse does not include non-physical, emotional distress or injury.

• **Stalking** means engaging in a repeated course of conduct directed at a specific person that would cause a reasonable person to fear for his/her or others' safety, or to suffer substantial emotional distress. For purposes of this definition:

» Course of conduct means two or more acts, including but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device, or means, follows, monitors, observes, surveys, threatens, or communicates to or about a person, or interferes with a person's property;

» Reasonable person means a reasonable person under similar circumstances and with the same protected status(es) as the complainant;

» Substantial emotional distress means significant mental suffering or anguish that may, but does not necessarily, require medical or other professional treatment or counseling.

• See further information in San Diego State University's sexual violence prevention and education statement, Title IX Notice of Nondiscrimination (which includes facts and myths about sexual violence), and Victim's Rights and Options Notice, at http://oerc.sdsu.edu/Title_IX_Notice.html.

Whom to Contact If You Have Complaints, Questions, or Concerns

Title IX requires the university to designate a Title IX coordinator to monitor and oversee Title IX compliance. The campus Title IX coordinator is available to explain and discuss the right to file a criminal complaint (for example, in cases of sexual misconduct); the university's complaint process, including the investigation process; how confidentiality is handled; available resources, both on and off campus; and other related matters. **If you are in the midst of an emergency, call the police immediately by dialing 9-1-1.**

SDSU Title IX Coordinator

Jessica Rentto, jrentto@mail.sdsu.edu
Administration, Room 320
619-594-6017

SDSU Deputy Title IX Coordinator

Dr. Lee Mintz, lmintz@mail.sdsu.edu
Student Services West, Room 1604
619-594-3069

SDSU Police Department

police@mail.sdsu.edu
5350 55th Street
619-594-1991

U.S. Department of Education, Office for Civil Rights (OCR)

800-421-3481, or 415-486-5555, or 800-877-8339 (TDD)
or <http://ocr.sanfrancisco.ed.gov>

If you wish to fill out a complaint form online with the OCR, go to: <http://www2.ed.gov/about/offices/list/ocr/complaintintro.html>.

Title IX requires the university to adopt and publish complaint procedures that provide for prompt and equitable resolution of gender discrimination complaints, including sexual harassment, and misconduct, as well as provide training, education, and preventive measures related to sex discrimination. CSU Executive Order 1097 (<http://www.calstate.edu/EO/EO-1097-rev-10-5-16.pdf>) (or any successor executive order) is the systemwide procedure for all complaints of discrimination, harassment, or retaliation made by students against the CSU, a CSU employee, other CSU students, or a third party.

Duty to Report. Except as provided below under confidentiality and sexual misconduct, dating violence, domestic violence, and stalking, any university employee who knows or has reason to know of allegations or acts that violate university policy shall promptly inform the Title IX Coordinator. These employees are required to disclose all information including the names of the parties, even where the person has requested that his/her name remain confidential. The Title IX Coordinator will determine whether confidentiality is appropriate given the circumstances of each such incident (see confidential reporting options outlined below).

Regardless of whether an alleged victim of gender discrimination ultimately files a complaint, if the campus knows or has reason to know about possible sexual discrimination, harassment, or misconduct, it must review the matter to determine if an investigation is warranted. The campus must then take appropriate steps to eliminate any gender discrimination/harassment/misconduct, prevent its recurrence, and remedy its effects.

Safety of the Campus Community is Primary

The university's primary concern is the safety of its campus community members. The use of alcohol or drugs never makes the victim at fault for gender discrimination, harassment, or misconduct; therefore, victims should not be deterred from reporting incidents of sexual misconduct out of a concern that they might be disciplined for related violations of drug, alcohol, or other university policies. Except in extreme circumstances, victims of sexual misconduct shall not be subject to discipline for related violations of the Student Conduct Code.

Information Regarding Campus, Criminal, and Civil Consequences of Committing Acts of Sexual Violence

Individuals alleged to have committed sexual misconduct may face criminal prosecution by law enforcement and may incur penalties as a result of civil litigation. In addition, employees and students may face discipline at the university, up to and including suspension or expulsion. Employees may face sanctions up to and including dismissal from employment, pursuant to established CSU policies and provisions of applicable collective bargaining unit agreements.

Students who are charged by the university with gender discrimination, harassment, or misconduct will be subject to discipline, pursuant to the California State University Student Conduct Procedures (CSU Executive Order 1098 at <http://www.calstate.edu/EO/EO-1098-rev-6-23-15.pdf> or any successor executive order) and will be subject to appropriate sanctions. In addition, during any investigation, the university may implement interim measures in order to maintain a safe and non-discriminatory educational environment. Such measures may include, but not be limited to: immediate interim suspension from the university; a required move from university-owned or affiliated housing; adjustments to course schedule; and/or prohibition from contact with parties involved in the alleged incident.

Confidentiality and Sexual Misconduct, Dating Violence, Domestic Violence, and Stalking

The university encourages victims of sexual misconduct, dating violence, domestic violence, or stalking to talk to someone about what happened – so they can get the support they need, and so the university can respond appropriately.

Privileged and Confidential Communications

Physicians, psychotherapists, professional, licensed counselors, licensed clinical social workers, and clergy who work or volunteer on or off campus, acting solely in those roles or capacities as part of their employment, and who provide medical or mental health treatment or counseling (and those who act under their supervision, including all individuals who work or volunteer in their centers and offices) may not report any information about an incident of sexual misconduct to anyone else at the university, including the Title IX Coordinator, without the victim's consent. A victim can seek assistance and support from physicians, psychotherapists, professional, licensed counselors, licensed clinical social workers, and clergy without triggering a university investigation that could reveal the victim's identity or the fact of the victim's disclosure. **However, see limited exceptions below regarding when health care practitioners must report to local law enforcement agencies. Health care practitioners should explain these limited exceptions to victims, if applicable.**

Sexual assault and domestic violence counselors and advocates who work or volunteer on or off campus in sexual assault centers, victim advocacy offices, women's centers, and health centers and who are acting solely in that role (including those who act in that role under their supervision, along with non-professional counselors or advocates who work or volunteer in sexual assault centers, victim advocacy offices, women's centers, gender equity centers, or health centers) may talk to a victim without revealing any information about the victim and the incident of sexual misconduct to anyone else at the university, including the Title IX Coordinator, without the victim's consent. A victim can seek assistance and support from these counselors and advocates without triggering a university investigation that could reveal his/her identity or that a victim disclosed an incident to them. **However, see limited exceptions below regarding when sexual assault and domestic violence counselors and advocates must report to local law enforcement agencies. Counselors and advocates should explain these limited exceptions to victims, if applicable.**

The university will be unable to conduct an investigation into a particular incident or pursue disciplinary action against a perpetrator if a victim chooses to (1) speak only to a physician, professional licensed counselor, licensed clinical social worker, clergy member, sexual assault counselor, domestic violence counselor, or advocate; and (2) maintain complete confidentiality. Even so, these individuals will assist victims in receiving other necessary protection and support, such as victim advocacy, disability, medical/health or mental health services, or legal services, and will advise victims regarding their right to file a Title IX complaint with the university and a separate complaint with local or university police. If a victim insists on confidentiality, such professionals, counselors and advocates will likely not be able to assist the victim with: university academic support or accommodations; changes to university-based living or working schedules; or adjustments to course schedules. A victim who at first requests confidentiality may later decide to file a complaint with the university or report the incident to the police, and thus have the incident fully investigated. These counselors and advocates can provide victims with that assistance if requested by the victim. These counselors and advocates will also explain that Title IX includes protections against retaliation, and that the university will not only take steps to prevent retaliation when it knows or reasonably should know of possible retaliation, but will also take strong responsive action if retaliation occurs.

EXCEPTIONS: Under California law, any health practitioner employed in a health facility, clinic, physician's office, or local or state public health department or clinic is required to make a report to local law enforcement if he or she provides medical services for a physical condition to a patient/victim who he or she knows or reasonably suspects is suffering from (1) a wound or physical injury inflicted by a firearm; or (2) any wound or other physical injury inflicted upon a victim where the injury is the result of assaultive or abusive conduct (including sexual misconduct, domestic violence, and dating violence). This exception does not apply to sexual assault and domestic violence counselors and advocates. Health care practitioners should explain this limited exception to victims, if applicable.

Additionally, under California law, all professionals described above (physicians, psychotherapists, professional counselors, licensed clinical social workers, clergy, and sexual assault and domestic violence counselors and advocates) are mandatory child abuse and neglect reporters, and are required to report incidents involving victims under 18 years of age to local law enforcement. These professionals will explain this limited exception to victims, if applicable.

Finally, some or all of these professionals may also have reporting obligations under California law to (1) local law enforcement in cases involving threats of immediate or imminent harm to self or others where disclosure of the information is necessary to prevent the threatened danger; or (2) to the court if compelled by court order or subpoena in a criminal proceeding related to the sexual misconduct, dating or domestic violence or stalking incident. If applicable, these professionals will explain this limited exception to victims.

Reporting to University or Local Police

If a victim reports to local or university police about sexual misconduct, crimes, the police are required to notify victims that their names will become a matter of public record unless confidentiality is requested. If a victim requests that his/her identity be kept confidential, his/her name will not become a matter of public record and the police will not report the victim's identity to anyone else at the university, including the Title IX Coordinator. University police will, however, report the facts of the incident itself to the Title IX Coordinator being sure not to reveal to the Title IX Coordinator victim names/identities or compromise their own criminal investigation. The university is required by the federal Clery Act to report certain types of crimes (including certain sex offenses) in statistical reports. However, while the university will report the type of incident in the annual crime statistics report known as the Annual Security Report, victim names/identities will not be revealed.

Reporting to the Title IX Coordinator and Other University Employees

Most university employees have a duty to report incidents of sexual misconduct when they are on notice of it. When a victim tells the Title IX Coordinator or another university employee about an incident of sexual misconduct, the victim has the right to expect the university to take immediate and appropriate steps to investigate what happened and to resolve the matter promptly and equitably. ***In all cases, the university strongly encourages victims to report incidents of sexual misconduct directly to the campus Title IX Coordinator.*** As detailed above, in the "Privileged and Confidential Communications" section of this policy, all university employees except physicians, licensed professional counselors, licensed clinical social workers, sexual assault counselors and advocates, must report to the Title IX Coordinator all relevant details about any incidents of sexual misconduct of which they become aware. The university will need to determine what happened – and will need to know the names of the victim(s) and the perpetrator(s), any witnesses, and any other relevant facts, including the date, time, and specific location of the incident.

To the extent possible, information reported to the Title IX Coordinator or other university employees will be shared only with individuals responsible for handling the university's response to the incident. The university will protect the privacy of individuals involved in a sexual misconduct violence incident except as otherwise required by law or university policy. A report of sexual misconduct may result in the gathering of extremely sensitive information about individuals in the campus community. While such information is considered confidential, university policy regarding access to public records and disclosure of personal information may require disclosure of certain information concerning a report of sexual misconduct. In such cases, efforts will be made to redact the records, as appropriate, in order to protect the victim's identity and privacy and the privacy of other involved individuals. Except as detailed in the section on "Privileged and Confidential Communications" above, no university employee, including the Title IX Coordinator, should disclose the victim's identity to the police without the victim's consent or unless the victim has also reported the incident to the police.

If a victim requests of the Title IX Coordinator or another university employee that his/her identity remain completely confidential, the Title IX Coordinator will explain that the university cannot always honor that request or guarantee complete confidentiality. If a victim wishes to remain confidential or request that no investigation be conducted or disciplinary action taken, the university must weigh that request against the university's obligation to provide a safe, non-discriminatory environment for all students, employees, and third parties, including the victim. Under those circumstances, the Title IX Coordinator will determine whether the victim's request for complete confidentiality and/or no investigation can be honored under the facts and circumstances of the particular case, including whether the university has a legal obligation to report the incident, conduct an investigation or take other appropriate steps. Without information about a victim's identity, the university's ability to meaningfully investigate the incident and pursue disciplinary action against the perpetrator may be severely limited. See CSU Executive Order 1095 (or any successor executive order) for further details around confidential reporting, and other related matters (<http://www.calstate.edu/eo/EO-1095-rev-6-23-15.pdf>).

Additional Resources

SDSU's sexual misconduct prevention and education statement, which includes facts and myths about sexual misconduct, at http://oerc.sdsu.edu/Title_IX_Notice.html.

U.S. Department of Education, regional office:

Office for Civil Rights
50 United Nations Plaza
San Francisco, CA 94102
415-486-5555 (TDD 877-521-2172)

U.S. Department of Education, national office:

Office for Civil Rights
800-872-5327

California Coalition Against Sexual Assault

1215 K. Street, Suite 1850
Sacramento, CA 95814
916-446-2520
<http://calcasa.org/>

Know Your Rights about Title IX:

<http://www2.ed.gov/about/offices/list/ocr/docs/title-ix-rights-201104.html>

Domestic and Family Violence:

Office of Justice Programs, United States Department of Justice
<http://ovc.ncjrs.gov/topic.aspx?topicid=27>

National Institute of Justice:

Intimate Partner Violence
Office of Justice Programs, United States Department of Justice
<http://www.nij.gov/topics/crime/intimate-partner-violence/Pages/welcome.aspx>

National Domestic Violence Hotline:

1-800-799-SAFE (7233)
<http://www.thehotline.org/>

Office of Violence against Women:

United States Department of Justice
<http://www.justice.gov/ovw>

Centers for Disease Control and Prevention:

Intimate Partner Violence
<http://www.cdc.gov/ViolencePrevention/intimatepartnerviolence/index.html>

Defending Childhood, United States Department of Justice:

<http://www.justice.gov/archives/defendingchildhood/>

Center for Community Solutions:

4508 Mission Bay Drive
San Diego, CA 92109
1-888-DVLINKS (385-4657) 24-Hour Toll Free Crisisline
<http://www.ccssd.org>

Licensure And Credentialing

Admission into programs leading to licensure and credentialing does not guarantee that students will obtain a license or credential. Licensure and credentialing requirements are set by agencies that are not controlled by or affiliated with the CSU and requirements can change at any time. For example, licensure or credentialing requirements can include evidence of the right to work in the United States (e.g., social security number or tax payer identification number) or successfully passing a criminal background check. Students are responsible for determining whether they can meet licensure or credentialing requirements. The CSU will not refund tuition, fees, or any associated costs, to students who determine subsequent to admission that they cannot meet licensure or credentialing requirements.

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 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 advanced certificates or other graduate programs, except for the Master of Arts in Teaching degree program.

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.

Grading System

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** (incomplete authorized), 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** (incomplete authorized), 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.

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 (incomplete authorized) is not counted in the grade point computation until one calendar year has expired, at which time it will be charged as an IC (incomplete charged) grade and will count as an F. The minimum grade point average 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.

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). An additional exception shall be made for Research (797) in which time period is not to exceed two years. Graduate courses for which the RP symbol is appropriate are specifically designated in the departmental listings of the Graduate Bulletin.

Candidates for graduation whose record carries a grade of RP will be graduated provided they are otherwise eligible for graduation. However, the RP cannot be made up after the degree has been granted. If students do not wish to be graduated with the grade of RP on their record, they must officially cancel their application for graduation.

Withdrawal Grade – W

The symbol "W" indicates that you were permitted to drop a course after the 10th day from the first day of classes 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.

Dropping a class is not permitted after 11:59 p.m. on the 10th day from the first day of classes, 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 instruction for 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. Total withdrawal 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 before 4 p.m. on the 10th day from the first day of classes 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 4 p.m. on the 10th day from the first day of classes. Graduate students cannot use audited courses to fulfill a degree requirement.

Credit/No Credit – Cr/NC

(Graduate Student Degree Coursework)

No courses graded credit/no credit (Cr/NC) are acceptable on an advanced degree program, except those offered only for credit/no credit. The symbol "Cr" is used to report the satisfactory completion of courses 797, 798, 799A, and certain 500-, 600-, 700-, and 800-numbered courses specifically designated in the graduate curriculum and the *Class Schedule*. Failure to complete such courses will result in the assignment of "NC." For graduate students, a grade of "Credit" in graduate level courses is awarded for work equivalent to a course letter grade of B (3.0) or better. "No Credit" is awarded for work equivalent to a course letter grade of B- (2.7) or less. See Thesis Extension (799B) section of this bulletin for additional information about 799B credit.

Incomplete Authorized 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 stated on the Incomplete agreement form that is processed by the instructor when grades are submitted. A copy of the Incomplete agreement will be available to the student, the instructor, and department via SDSU WebPortal at <http://www.sdsu.edu/portal>. A final grade is assigned when the work agreed upon has been completed and evaluated. An Incomplete shall not be assigned when the only way the student could make up the work would be to attend a major portion of the class when it is next offered.

An Incomplete must be made up within one calendar year immediately following the end of the term in which it was assigned; however, faculty have the option to assign a deadline that is less than one year. This limitation prevails whether or not the student maintains continuous enrollment. The I (incomplete authorized) grade must be resolved prior to the student's graduation date, even if it is less than a year. Failure to do so will result in a cancellation of the student's graduation application. Failure to complete the assigned work within one calendar year will result in an Incomplete being converted to an IC symbol, which would become the final grade on the student's record at the end of the calendar year deadline. In any case, because a student's record must provide an accurate and complete accounting of the student's 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 I (incomplete authorized) has not completed the required coursework within the allowed time limit. The IC is posted to the record at the end of the one year time limit and is counted as a failing grade for grade point average and progress point computation. Re-registering for a course in which a grade of I was initially assigned does not remove the outstanding grade.

Withdrawal Unauthorized Grade – WU

The symbol WU indicates that a student 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. Graduate students who have successfully repeated a WU graded course may petition the Division of Graduate Affairs for a possible grade point average adjustment.

Assignment of Grades and Grade Appeals

Faculty have the right and responsibility to provide evaluation and timely assignment of appropriate grades. There is a presumption that grades assigned are correct. It is the responsibility of anyone appealing an assigned grade to demonstrate otherwise.

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. Requests to improve an earned grade assigned at the end of a semester by completing additional coursework are not considered. 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.

Repeated Courses

(Graduate Student Degree Coursework)

Students must earn a minimum grade of C (2.0) or better in all courses on their program of study; however, some programs require a grade of B (3.0) or better in selected courses. Ordinarily, a graduate student may not repeat courses taken as part of an official master's degree program; however, with prior permission of the graduate adviser, a student may repeat one course on the official program of study in which a grade of C (2.0) has been earned. A program of study course must be repeated if the minimum departmental or minimum course grade requirement is not satisfied. Should a student need to repeat more than one program of study course, the student must submit to the graduate dean a petition for adjustment of academic requirement. Repeated courses may not be taken for credit/no credit (Cr/NC). When a graduate student in any category of admission repeats a course, both grades will remain on the student's permanent record and both grades will be calculated in all grade point averages. Both grades will also be included in the student's program of study. Upon appeal to the Division of Graduate Affairs, the first grade for a repeated course may be omitted from all grade point averages if the first grade was withdrawal unauthorized grade (WU). Omitting the original grade from grade point average calculations may only be done once and only if the original grade was WU and after the repeat grade is posted.

Schedule Adjustment

The schedule adjustment period begins when a student first registers on their assigned day and time and runs through the schedule adjustment deadline which is the 10th day of classes at 11:59 p.m. During this period, students are responsible for checking their schedules regularly and for taking the necessary actions to add, drop, or change grading options before the schedule adjustment deadline. Students who do not attend a class and who do not ensure that the course is officially dropped in the SDSU WebPortal at <http://www.sdsu.edu/portal>, will receive a failing grade. Schedule adjustments are accepted until 11:59 p.m. on the following dates:

Fall 2018 Semester: September 10, 2018

Spring 2019 Semester: February 5, 2019

Students are not permitted to drop or add a class after the stated deadlines, 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 applicable. All such request must be accompanied by appropriate verification. Ordinarily, withdrawals in this category will involve total withdrawal from the university, except that credit or an Incomplete, may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Requests to withdraw under such circumstances must be signed by each instructor who indicates the student's grade status in the class and approved by the dean (or designee) of the college of the student's major.

Instructor Initiated Drop. Students who do not attend the first class session of a course may be dropped from that course by

the instructor within the first eight class days of the semester. Students who do not meet the prerequisite requirements can also be dropped within the first eight class days of the semester. Any student dropped by the instructor during this period will be notified of the action by e-mail. Not all instructors will drop students who miss the first class session or for lack of prerequisites. Students are responsible for all classes on their schedules and should check their schedules regularly to ensure accuracy. 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>.

Wait List. Students are able to wait list a class when it has reached capacity. The wait list option is effective when registration begins for each semester. Students will be ranked on the wait list based on specific conditions and first-come, first-serve basis. Students must manage their wait list and ranking throughout the registration period. If a spot becomes available, students will be automatically enrolled to a class on their wait list. An e-mail will be sent to students to confirm enrollment in the wait list class. 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>. If you decide that you no longer want that class you have wait listed, you are responsible for removing the class from your wait list.

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.

Withdrawals

A graduate student who has been admitted to a graduate degree curriculum but has completed no courses at this university for two consecutive semesters is considered to have withdrawn from the curriculum if a request for an approved leave of absence has not been granted. The student will be required to file an application for readmission to the university upon resumption of graduate study. A student who withdraws from a graduate curriculum will be required to comply with regulations and requirements in effect at the time of readmission to the Division of Graduate Affairs.

Official Withdrawal

Students who find it necessary to cancel their registration or to withdraw from the university 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 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.

A student who has not paid fees and is not enrolled in at least one class (other than for audit) by 11:59 p.m. on the 10th day from the first day of classes 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 by 11:59 p.m. on the 10th day from the first day of classes. After the 10th day from the first day of classes, 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.

Withdraw Retroactively

After the last day of instruction for a term, if you wish to change assigned grades to W grades, you must request to withdraw from the full semester's work. Total withdrawal requests may be granted only in verified cases such as accident or serious illness

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where the cause for substandard performance was due to circumstances clearly beyond your control. No requests for individual classes will be accepted.

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

Educational Leave of Absence

(Graduate Student Degree Coursework)

A one semester leave of absence may be granted when necessary due to personal, educational, military, or employment reasons. Students are permitted to take up to four semesters of approved leave of absence and must apply at the beginning of 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 access the leave of absence form at <http://www.sdsu.edu/portal>. Approval from the student's graduate adviser and the Dean of Graduate Affairs is required. Educational leaves of absence will be granted only to students who have completed a minimum of one semester at San Diego State University. Leaves will not be granted to students who have been disqualified or students who have specific registration holds. For more information, visit <http://arweb.sdsu.edu/es/registrar/leave.html>.

Military Called to Compulsory Service

For information about the policy for Military Called to Compulsory Service, contact the Joan and Art Barron Veterans Center at 619-594-5813.

Readmission

A student who withdraws from the university for more than one semester must file an application for readmission before the stated closing deadline with a \$55 application fee. If the student was enrolled at another institution subsequent to the last attendance at San Diego State University, an official transcript showing work completed must be sent by the institution directly to Graduate Admissions before readmission can be completed. SDSU students in good academic standing, with programs of study on file, will retain their original bulletin status as long as the student remains matriculated.

Probation and Disqualification

Academic Probation

(Grade Point Average Deficiency)

A post-baccalaureate graduate student in any admission category shall be placed on academic probation if the student fails to maintain a cumulative grade point average of at least 2.85 in all units attempted subsequent to admission to the university.

Students in a graduate degree program in conditional or classified standing should consult the section of this bulletin

entitled "General Requirements for Doctoral Programs" and "Basic Requirements for the Master's Degree" for additional grade point average requirements for degree seeking students.

Academic Disqualification

(Grade Point Average Deficiency)

A graduate student whose cumulative grade point average falls below 2.85 for work attempted at San Diego State University will be placed on academic probation at the end of the semester. If during the first semester on probation the student does not achieve a term GPA of a 2.85 or better, the student will be disqualified from San Diego State University. If during the first semester on probation the student earns a term GPA of 2.85 or better in San Diego State University coursework, but still has an overall cumulative GPA less than 2.85, the student will continue on academic probation for a second semester. If at the end of the second semester a student fails to achieve a cumulative GPA of 2.85, the student will be subject to academic disqualification from further attendance at the university. If at the end of the second semester the student has attained a 2.85 cumulative GPA or better on all work attempted at San Diego State University, academic probation will be lifted.

Reinstatement of Academically Disqualified Students

Graduate students who are academically disqualified from further attendance at the university may not attend SDSU, to include the College of Extended Studies, for a minimum of one full semester. They must file an application for readmission with a \$55 application fee. They will be sent a Petition for Reinstatement that they need to return as soon as possible. Readmission to the university is NOT automatic. Each applicant will be considered on an individual basis by the graduate adviser with recommendations to the graduate dean.

Administrative Disqualification

Departments or schools of the university may recommend that the graduate dean dismiss from the program any graduate student whose performance in a degree, certificate, or credential program is judged unsatisfactory with respect to the scholastic or professional standards of the program other than GPA. Students will be notified when they are subject to dismissal from the major and given a chance to respond in writing. If the department or school decides to proceed with the administrative disqualification, they will notify the graduate dean of the decision and the student will be disqualified and officially removed from the major at the end of the semester. Examples of unsatisfactory performance include but are not limited to: withdrawal from all or a substantial portion of a program of studies in two successive terms or in any three terms, failure to adhere to professional standards (see section on Standards for Professional Graduate Student Conduct), failure to make normal progress toward the degree, failure to fulfill conditions for fully classified admission within the time specified, denial of advancement to candidacy for a degree, and failure in presentation of a thesis or comprehensive examination.

Upon the dean's issuance of disqualification, the student's status will become undeclared and the student will become ineligible to enroll in coursework from his or her program. If the student wishes to apply to another San Diego State University graduate program, the information regarding his or her dismissal will be included with the application materials forwarded to the new program prior to an admission decision. Unless a student has been accepted to a new graduate program by the end of the semester following dismissal, the student will be ineligible for registration and will need to reapply to the university if she or he wishes to return to the university.

Student Conduct

Inappropriate conduct by students or applicants for admission is subject to discipline on the San Diego State University campus. The Center for Student Rights and Responsibilities establishes standards and procedures in accordance with regulations contained in Sections 41301, 41302 of Title 5, *California Code of*

Regulations. Procedures are set forth in CSU Executive Order 1098 at <http://calstate.edu/eo/EO-1098-rev-6-23-15.html>. These sections are as follows:

41301. Standards for Student Conduct.

A. Campus Community Values

The university is committed to maintaining a safe and healthy living and learning environment for students, faculty, and staff. Each member of the campus community should choose behaviors that contribute toward this end. Students are expected to be good citizens and to engage in responsible behaviors that reflect well upon their university, to be civil to one another and to others in the campus community, and contribute positively to student and university life.

B. Grounds for Student Discipline

Student behavior that is not consistent with the Student Conduct Code is addressed through an educational process that is designed to promote safety and good citizenship and, when necessary, impose appropriate consequences.

The following are the grounds upon which student discipline can be based:

1. Dishonesty, including:
 - a. Cheating, plagiarism, or other forms of academic dishonesty that are intended to gain unfair academic advantage.
 - b. Furnishing false information to a university official, faculty member, or campus office.
 - c. Forgery, alteration, or misuse of a university document, key, or identification instrument.
 - d. Misrepresenting one's self to be an authorized agent of the university or one of its auxiliaries.
2. Unauthorized entry into, presence in, use of, or misuse of university property.
3. Willful, material and substantial disruption or obstruction of a university-related activity, or any on-campus activity.
4. Participating in an activity that substantially and materially disrupts the normal operations of the university, or infringes on the rights of members of the university community.
5. Willful, material and substantial obstruction of the free flow of pedestrian or other traffic, on or leading to campus property or an off-campus university related activity.
6. Disorderly, lewd, indecent, or obscene behavior at a university related activity, or directed toward a member of the university community.
7. Conduct that threatens or endangers the health or safety of any person within or related to the university community, including physical abuse, threats, intimidation, harassment, or sexual misconduct.
8. Hazing, or conspiracy to haze. Hazing is defined as any method of initiation or pre-initiation into a student organization or student body, whether or not the organization or body is officially recognized by an educational institution, which is likely to cause serious bodily injury to any former, current, or prospective student of any school, community college, college, university or other educational institution in this state (Penal Code 245.6), and in addition, any act likely to cause physical harm, personal degradation or disgrace resulting in physical or mental harm, to any former, current, or prospective student of any school, community college, college, university or other educational institution. The term "hazing" does not include customary athletic events or school sanctioned events.

Neither the express or implied consent of a victim of hazing, nor the lack of active participation in a particular hazing incident is a defense. Apathy or acquiescence in the presence of hazing is not a neutral act, and is also a violation of this section.

9. Use, possession, manufacture, or distribution of illegal drugs or drug-related paraphernalia, (except as expressly permitted by law and university regulations) or the misuse of legal pharmaceutical drugs. SDSU does not permit the possession or use of marijuana even with a medical recommendation.

10. Use, possession, manufacture, or distribution of alcoholic beverages (except as expressly permitted by law and university regulations), or public intoxication while on campus or at a university related activity.
11. Theft of property or services from the university community, or misappropriation of university resources.
12. Unauthorized destruction or damage to university property or other property in the university community.
13. Possession or misuse of firearms or guns, replicas, ammunition, explosives, fireworks, knives, other weapons, or dangerous chemicals (without the prior authorization of the campus president) on campus or at a university related activity.
14. Unauthorized recording, dissemination, or publication of academic presentations (including handwritten notes) for a commercial purpose.
15. Misuse of computer facilities or resources, including:
 - a. Unauthorized entry into a file, for any purpose.
 - b. Unauthorized transfer of a file.
 - c. Use of another's identification or password.
 - d. Use of computing facilities, campus network, or other resources to interfere with the work of another member of the university community.
 - e. Use of computing facilities and resources to send obscene or intimidating and abusive messages.
 - f. Use of computing facilities and resources to interfere with normal university operations.
 - g. Use of computing facilities and resources in violation of copyright laws.
 - h. Violation of a campus computer use policy.
16. Violation of any published university policy, rule, regulation or presidential order.
17. Failure to comply with directions or interference with any university official or any public safety officer while acting in the performance of his/her duties.
18. Any act chargeable as a violation of a federal, state, or local law that poses a substantial threat to the safety or well being of members of the university community, to property within the university community or poses a significant threat of disruption or interference with university operations.
19. Violation of the Student Conduct Procedures, including:
 - a. Falsification, distortion, or misrepresentation of information related to a student discipline matter.
 - b. Disruption or interference with the orderly progress of a student discipline proceeding.
 - c. Initiation of a student discipline proceeding in bad faith.
 - d. Attempting to discourage another from participating in the student discipline matter.
 - e. Attempting to influence the impartiality of any participant in a student discipline matter.
 - f. Verbal or physical harassment or intimidation of any participant in a student discipline matter.
 - g. Failure to comply with the sanction(s) imposed under a student discipline proceeding.
20. Encouraging, permitting, or assisting another to do any act that could subject him or her to discipline.

C. Procedures for Enforcing This Code

The chancellor shall adopt procedures to ensure students are afforded appropriate notice and an opportunity to be heard before the university imposes any sanction for a violation of the Student Conduct Code.

D. Application of This Code

Sanctions for the conduct listed above can be imposed on applicants, enrolled students, students between academic terms, graduates awaiting degrees, and students who withdraw from school while a disciplinary matter is pending. Conduct that threatens the safety or security of the campus community, or substantially disrupts the functions or operation of the university is within the jurisdiction of this Article regardless of whether it occurs on or off campus. Nothing in this Code may

conflict with *California Education Code* Section 66301 that prohibits disciplinary action against students based on behavior protected by the First Amendment.

41302. Disposition of Fees: Campus Emergency; Interim Suspension.

The president of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester, quarter, or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the president of the individual campus, the president may, after consultation with the chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The president may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the president or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

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 Office of the Student Ombudsman, Student Services East, Room 1105.

Cheating and Plagiarism

Institutions of higher education are founded to impart knowledge, seek truth, and encourage one's development for the good of society. University students shall thus be intellectually and morally obliged to pursue studies with honesty and integrity. In preparing and submitting materials for academic courses and in taking examinations, a student shall not yield to cheating or plagiarism, which not only violate academic standards but also make the offender liable to penalties explicit in Section 41301 of Title 5, *California Code of Regulations* as follows:

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 that must be campus related.

Cheating

Cheating is defined as the act of obtaining, or attempting to obtain, credit for academic work by the use of dishonest, deceptive, or fraudulent means. Examples of cheating include, but are not limited to:

- a. copying, in part or in whole, from another's test or other examination;
- b. discussing answers or ideas relating to the answers on a test or other examination without the permission of the instructor;
- c. obtaining copies of a test, an examination, or other course material without the permission of the instructor;
- d. using notes, cheat sheets, or other devices considered inappropriate under the prescribed testing condition;

- e. collaborating with another or others in work to be presented without the permission of the instructor;
- f. falsifying records, laboratory work, or other course data;
- g. submitting work previously presented in another course, if contrary to the rules of the course;
- h. altering or interfering with the grading procedures;
- i. plagiarizing, as defined; and
- j. knowingly and intentionally assisting another student in any of the above.

Plagiarism

Plagiarism is defined as the act of incorporating ideas, words, or specific substance of another, whether purchased, borrowed, or otherwise obtained, and submitting same to the university as one's own work to fulfill academic requirements without giving credit to the appropriate source. Plagiarism shall include but not be limited to:

- a. submitting work, either in part or in whole, completed by another;
- b. omitting citations for ideas, statements, facts, or conclusions that belong to another;
- c. omitting quotation marks when quoting directly from another, whether it be a paragraph, sentence, or part thereof;
- d. close and lengthy paraphrasing of the writings of another;
- e. submitting another person's artistic works, such as drawings, musical compositions, paintings, photographs, or sculptures; and
- f. submitting as one's own work papers purchased from research companies.

Disciplinary Action

Cheating and plagiarism in connection with an academic program at the university may warrant two separate and distinct courses of action that may be applied concurrently in response to a violation of this policy: **(a)** academic sanctions, such as grade modifications; and **(b)** disciplinary sanctions, such as probation, suspension, or expulsion.

Academic sanctions are concerned with the student's grades and are the responsibility of the instructor involved. Disciplinary sanctions are concerned with the student's records and status on campus and shall be the responsibility of the university president or designated representative. The Director of the Center for Student Rights and Responsibilities shall be the president's representative in matters of student discipline.

Civil and Criminal Penalties for Violation of Federal Copyrights Law

Anyone who is found to be liable for copyright infringement may be liable for either the owner's actual damages, along with any profits of the infringer, or statutory damages of up to \$30,000 per work infringed. In the case of a willful infringement, a court may award up to \$150,000 per work infringed (see 17 U.S.C. §504). Courts also have discretion to award costs and attorneys' fees to the prevailing party (see 17 U.S.C. §505). Willful copyright infringement can also result in criminal penalties, including imprisonment and fines (see 17 U.S.C. §506 and 18 U.S.C. §2319).

SDSU Alcohol and Substance Abuse Policies

In accordance with the California Information Practices Act, the Vice President for Student Affairs or designee 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.

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 and Psychological Services, 619-594-5220; Residential Education Office, 619-594-5742; Well-being and Health Promotion, 619-594-4133; Athletic Department, 619-594-3019; Student Health Services, 619-594-5281; University Police Department, 619-594-1991.

For students with substance abuse problems or concerns, assistance is available at SDSU's Counseling and Psychological Services (CPS) located in Calpulli Center, Room 4401. Students who prefer an appointment with a health care provider (e.g. nurse or physician), may contact Student Health Services. If you are aware of problems with friends, roommates, or family members, we encourage you to act responsibly by consulting with Counseling and Psychological Services. Remaining silent or waiting until a situation has escalated is not responsible behavior. SDSU supports the notion of students helping one another to cooperatively solve alcohol and substance abuse problems as they occur.

Laws and Campus Policy

With few exceptions, it is illegal for anyone under the age of 21 to purchase or possess alcohol. If you violate these laws, you may face a minimum fine of \$250 and suspension of your driving license. For more information about California laws, visit the California State Bar website at <http://www.calbar.ca.gov/Public/Free-Legal-Information/Legal-Guides/Kids-the-Law> or the California Alcohol Beverage Control website at <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 website at <http://www.calbar.ca.gov/Public/Free-Legal-Information/Legal-Guides/Kids-the-Law>.

In addition to the Standards for Student Conduct in the *California Code of Regulations*, Title V, Article 2, Section 41301, SDSU's expectations of responsible student behavior prohibits the unlawful possession, use, or distribution of drugs and alcohol by students on university property or in surrounding neighborhoods, or as any part of the university's activities. Violators 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, and in surrounding neighborhoods, the sale, distribution, knowing possession, and use of dangerous drugs or narcotics are prohibited. Students are also forbidden by state and federal laws to sell, distribute, possess, or use those drugs. SDSU does not permit the possession or use of marijuana even with a medical recommendation.

Student organizations, residence halls, athletics, and Greek Life have instituted additional policies regarding alcohol and drugs. Please contact relevant administration offices for more information. More information can also be found at http://go.sdsu.edu/student_affairs/healthpromotion/aodalcoholandotherdrugs.aspx.

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, but not limited to, 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 University Police Department is empowered to enforce all local and state 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 use 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.

Drug Law Violations and Consequences

A federal or state drug conviction for possession, sale, or conspiring to sell illegal drugs can affect a student's eligibility to receive federal student financial aid, including loans, grants, and work study. If the offense occurs while the student is receiving federal student financial aid, the student will lose aid eligibility for a certain period of time. Additional information is available from the Office of Financial Aid and Scholarships, Student Services West, Room 3615, 619-594-6323, or at <http://www.sdsu.edu/financialaid>.

SDSU Smoke-Free Policy

SDSU is a completely smoke-free campus. Smoking is not permitted in or outside any buildings, including Viejas Arena and auxiliary buildings, or in parking areas. Use of any tobacco product can result in an administrative citation.

This policy implements Section 42356 of Title 5, *California Code of Regulations* and CSU Memorandum, 2002-26 and 2003-19, in accordance with *California Education Code* Sections 89030 and 89031, California Government Code Sections 7596-7598, and CSU Executive Order 599.

Visit http://smokefree.sdsu.edu/smoke_free/ for more information on the SDSU smoking policy and smoking cessation programs.

SDSU Active Transportation Policy (Bicycles and Skateboards on Campus)

SDSU encourages our community to use alternative modes of transportation to and from campus. Bicycles may only be operated on streets and designated paths. In other locations, bicyclists shall walk their bicycles and shall park them in designated parking stands and areas. Skateboards, roller skates, and similar personal wheeled conveyances may only be operated on designated bike paths and campus curbed roadways. Use of bicycles or personal wheeled conveyances in areas other than designated areas is a violation of university policy, or the law, and can result in an administrative or criminal citation.

Service and Guide Dog Policy

San Diego State University complies with the Americans with Disabilities Act Amendments Act of 2008 (ADAAA) and Section 504 of the Rehabilitation Act of 1973. The ADAAA and Section 504 require SDSU to make reasonable modifications to its policies, practices, or procedures to permit the use of a service or guide animal (further known as “dog”) by a faculty, staff, student, or visitor (further known as handler) with a disability.

Definition of a Service or Guide Dog

The ADAAA defines a service or guide animal as “any dog (or miniature horse) that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, psychiatric, sensory, or other mental disability.”

It is important to note that other species of animal, whether wild or domestic, trained or untrained, are not service animals for the purposes of the ADAAA. It should further be noted that the ADAAA provides an exception for miniature horses that are trained as guide animals for the blind or visually impaired. Note that the crime deterrent effects of a dog’s presence and the provision of comfort, companionship, emotional support, or well-being do not constitute work or tasks for the purposes of determining whether a dog is a service or guide animal under the ADAAA or this policy.

Verification of a Service or Guide Dog

Handlers will not be asked about the nature or extent of his or her disability. However, when it is not readily apparent that the dog identified by the handler is trained to do work or perform tasks for him or her, university designees may only ask the handler the following two questions:

- Is the dog required because of a disability?
- What work or task has the dog been trained to perform?

Documentation, such as proof that the dog has been certified, trained, or licensed as a service or guide dog is not required.

For complete service and guide dog policy, visit http://go.sdsu.edu/student_affairs/sds/serviceanimals.aspx.

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, Security and Fire Report and current annual crime statistics are available online at <http://www.police.sdsu.edu>. Call the University Police Crime Prevention Unit at 619-594-1985 for more information.

Integrity in Research and Scholarship

San Diego State University expects the highest standards of ethical behavior of all members of the academic community involved in the conduct of research, including graduate students. Although instances of misconduct in research are rare, reports of possible scientific fraud concerning faculty, staff, and graduate students employed in research contracts and grants are dealt with in accordance with the university’s assurance of compliance with the United States Public Health Service scientific misconduct regulations. The administrative process for handling allegations of scientific misconduct and for protecting the rights and reputations of all persons involved is detailed in the Policy on Integrity in Research and Scholarship and published in the *SDSU Policy File*.

Reports and/or charges of misconduct in research at SDSU should be directed to the chair of the department or dean of the college in which the alleged misconduct has occurred. Such reports may also be directed to the Vice President for Research in Graduate and Research Affairs for referral to the appropriate college dean.

Transcripts of Record

Official Transcripts

Official transcripts can be ordered online in your SDSU WebPortal at <http://www.sdsu.edu/portal> under the Official Transcript section. If all your coursework was completed prior to 1987 or if your transcript requires special handling (e.g. via United States Postal Service Priority or Express Mail only), you will need to order official transcripts by completing an Official Transcript Request form and submitting it to the University Cashiers Office. A fee is charged for all transcripts and must be paid in advance. An official transcript is usually mailed within five to seven business days after the request is processed by the Cashiers Office, unless a hold has been indicated. Transcripts from other schools or colleges become the property of this university and will not be released or copied.

Unofficial Transcripts

You may print an unofficial SDSU transcript by accessing the SDSU WebPortal at <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.

Graduate Program Unit Limits and Guidelines

Full time enrollment for graduate students is nine units of coursework numbered 500 through 999. Enrollment in Thesis (799A) is considered full time for master’s degree candidates. Enrollment in Thesis Extension (799B) or Comprehensive Examination Extension (799C) is considered half time for master’s degree candidates. Enrollment in Doctoral Research (897), Doctoral Dissertation (899), or Clinical Internship (Psychology 894) is considered full time for students admitted to a doctoral program.

Transfer and Foreign University Credit

For most master’s degree programs, the maximum transferable course credit is nine units including courses taken through San Diego State University College of Extended Studies. Exceptions are the Master of Business Administration degree, Master in Regulatory Affairs degree, Master of Science in Nursing degree which permits 12 units; the Master of Fine Arts in Creative Writing degree which permits 18 units; the Master of Science degree in Counseling which permits 24 units; and the Master of Fine Arts degree in Art, the Master of Fine Arts degree in Theatre Arts, the Master of Science degree in Rehabilitation Counseling, and the Master of Social Work degree which permit 30 units. All transfer credit earned in other colleges and universities including foreign universities and those earned through the San Diego State University College of Extended Studies must be approved by the graduate adviser and graduate dean. Credit earned by correspondence or by examination is not acceptable as satisfying advanced degree requirements. Transfer limits for most advanced certificate programs are limited to a maximum of three units including courses taken through San Diego State University College of Extended Studies. For advanced certificates requiring more than 12 units, maximum transfer limits are 30% of degree units and must have the recommendation of the program adviser and the Dean of Graduate Affairs.

Open University

Students who have been admitted to the university may NOT enroll in on-campus 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 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 and Foreign University Credit).

Special Sessions Program Credit

Special session degree programs are offered through the College of Extended Studies for external degree students. A matriculated graduate student who is not in a special session degree program may only take courses through the special session program 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 students are taking **regular session** courses, they **will** have to pay **special session** fees and **regular session** fees.

Non-Credit Courses

Non-credit courses offered through the College of Extended Studies will appear on the San Diego State University transcript but are not transferable for graduate credit. Graduate students who enroll in these courses normally do so for personal enrichment only.

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 West, Room 3615, 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 and for San Diego State University students participating in study abroad programs;
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, criteria for continued student eligibility under each program, and how a drug law violation may affect your eligibility to receive financial aid;
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 way the university provides for Pell-eligible students to obtain or purchase required books and supplies by the seventh day of a payment period and how the student may opt out;
7. 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;
8. The general conditions and terms applicable to any employment provided as part of the student's financial aid package;

9. The terms and conditions of the loans students receive under the Direct Loan and Perkins Loan Programs;
10. The exit counseling information the university provides and collects for student borrowers; and
11. Contact information for the Office of the Student Ombudsman office available for disputes concerning federal, institutional and private loans.

Information concerning the cost of attending San Diego State University is available from the Office of Financial Aid and Scholarships, Student Services West, Room 3615, 619-594-6323, or at <http://www.sdsu.edu/financialaid>, and includes tuition and fees; 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 Student Account Services, Student Services West, Room 2536, 619-594-5253, or at <http://www.sdsu.edu/sas>.

Information concerning policies regarding the return of federal Title IV student assistance funds as required by regulation is available from Student Account Services, Student Services West, Room 2536, 619-594-5253, or at <http://www.sdsu.edu/sas>.

Information concerning loan exit counseling for all student borrowers under the federal student loan programs is available from Student Account Services, Student Services, West Room 2536, 619-594-5253, or at <http://www.sdsu.edu/sas>.

Information regarding special facilities and services available to students with disabilities may be obtained from the Student Ability Success Center, Calpulli Center, Room 3101, 619-594-6473 (TDD: 619-594-2929), or at <http://www.sa.sdsu.edu/sds>.

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 the University Police Department, 619-594-1991, or at <http://www.police.sdsu.edu>.

Information concerning San Diego State University annual campus security report and annual fire safety report may be obtained from the University Police Department, 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, Calpulli Center, Room 4401, 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 Analytic Studies and Institutional Research, Manchester Hall, Room 3310, 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, Education and 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 Office of the Student Ombudsman, Student Services East, Room 1105, 619-594-6578, or at <http://www.sa.sdsu.edu/ombuds>.

Information concerning student activities that San Diego State University provides, must be easily accessible on <http://www.sdsu.edu>.

Information concerning student body diversity at San Diego State University, including the percentage of enrolled, fulltime students who are (1) male, (2) female, (3) Pell Grant recipients, and (4) self-identified members of a specific racial or ethnic group, may be obtained from Analytic Studies and Institutional Research, Manchester Hall, Room 3310, 619-594-6846, or at <http://asir.sdsu.edu>.

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 30 days of their 18th 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>.

Student Complaint Procedure (Complaints Regarding the CSU)

Office of the Student Ombudsman

Student Services East, Room 1105
619-594-6578

<http://www.studentaffairs.sdsu.edu/ombuds>

The California State University takes very seriously complaints and concerns regarding the institution. If you have a complaint regarding the CSU, you may present your complaint as follows:

1. If your complaint concerns CSU's compliance with academic program quality and accrediting standards, you may present your complaint to the Western Association of Schools and Colleges (WASC) at <http://www.wascsenior.org/comments>. WASC is the agency that accredits the CSU's academic program. If you believe that your complaint warrants further attention after you have exhausted all the steps outlined by the president or student ombudsman, or by WASC, you may file an appeal with the Assistant Vice Chancellor, Academic and Student Affairs at the CSU Chancellor's Office. This procedure should not be construed to limit any right that you may have to take action to resolve your complaint.
2. If your complaint concerns an alleged violation by CSU of any law that prohibits discrimination, harassment or retaliation based on a protected status (such as age, disability, gender (or sex), gender identity, gender expression, nationality, race or ethnicity (including color or ancestry), religion or veteran or military status), you may present your complaint as described in Section XVI (Nondiscrimination Policy).
3. If your complaint concerns an alleged violation by the CSU of other state law, including laws prohibiting fraud and false advertising, you may present your claim complaint to the campus president or Office of the Student Ombudsman, Student Services East, Room 1105, 619-594-6578, <http://www.studentaffairs.sdsu.edu/ombuds>. The president or student ombudsman will provide guidance on the appropriate campus process for addressing your particular issue. See Procedure for Student Complaints—CSU Executive Order 1063 for details regarding the complaint requirements and complaint process at <http://www.calstate.edu/eo/eo-1063.html>.
4. Other complaints regarding the CSU may be presented to the campus dean of students, who will provide guidance on the appropriate campus process for addressing your particular issue.



4

PART

Requirements for Master's Degrees

Requirements for Doctoral Degrees

Requirements for Master's Degrees

To receive the master's degree at San Diego State University, the candidate must complete the following general requirements as well as the more specific requirements listed in the appropriate sections of Part Five of this bulletin.

Official Programs of Study

Official programs of study are to be submitted to the Division of Graduate Affairs for approval after the student has been granted classified graduate standing. The program must be submitted prior to or concurrent with the time the student wishes to be considered for advancement to candidacy and the student must be in good academic standing at the time of submission. The requirements governing the official program will be those specified in the bulletin in effect at the time the program is approved in the Division of Graduate Affairs.

Official master's degree programs of study, as recommended by the graduate adviser and approved by the graduate dean, are binding unless the student withdraws from the university. Withdrawal is defined as having taken no courses during two consecutive semesters without an approved leave of absence.

A student who withdraws from the university and is later readmitted with classified graduate standing may, with the recommendation of the graduate adviser and the consent of the graduate dean, continue with the original official program of study or may be required to submit a new program that complies with the requirements of the current Graduate Bulletin in effect at the time of readmission.

When course requirements listed on an official master's degree program deviate from those prescribed in the Graduate Bulletin, the student must submit to the graduate dean a petition for adjustment of academic requirements.

It is the student's responsibility to complete the specific courses listed on the official program of study with a grade of C or better. No changes will be permitted unless recommended by the graduate adviser and approved by the graduate dean. No course can be deleted from an official program of study after the course has been completed. This includes a course for which a student has registered and received an "Incomplete" or "Report in Progress" grade.

Foreign Language Requirement

Some departments require students to pass a foreign language requirement prior to advancement to candidacy, or in some cases, prior to graduation. See Part Five of this Bulletin for details.

Advancement to Candidacy

A student who holds classified graduate standing and who meets the scholastic, professional, and personal standards of the university may be considered for advancement to candidacy for the master's degree at the point of submission of the official program of study. For the Master of Arts, the Master of Science, the Master of Business Administration, the Master of Music, the Master of Public Administration, and the Master of Public Health degrees, a student may be advanced to candidacy after completing at least 12 units of coursework listed on the official program of study with a minimum grade point average of 3.0 (B); for the Master of City Planning, the Master of Science in counseling, the Master of Science in rehabilitation counseling, and the Master of Social Work degrees, the student must have earned at least 24 units of coursework listed on the official program of study with a minimum grade point average of 3.0 (B); for the degree of Master of Fine Arts in art, or the degree of Master of Fine Arts in theatre arts, the student must have earned at least 30 units of coursework listed on the official program of study with a minimum grade point average of 3.0 (B); for the degree of Master of Fine Arts in creative writing, the student must have earned at least 30 units of coursework listed on the official program of study with a minimum grade point average of 3.25.

In addition to having classified graduate standing and the grade point averages specified above, the student must have maintained the required grade point averages (see section on next page) with no grade of less than 2.0 (C) in a program course, completed all the undergraduate deficiencies, and the special requirements of the department or school concerned. The Division of Graduate Affairs will send the students written notification of advancement to candidacy.

A program of study must be on file at least one semester prior to graduation. A student may not enroll in 799A, take a Plan B comprehensive examination, or enroll in certain courses within the degree program until advanced to candidacy.

Unit Requirements

Credit earned by correspondence or by examination is not acceptable for advanced degree programs. Courses applied toward one advanced degree may not be used to fulfill the requirements of another advanced degree. Courses designated undergraduate level cannot be used towards an advanced degree. Coursework completed prior to earning a baccalaureate degree is not applicable toward any future graduate degree except under policy for concurrent master's degree credit.

At least one-half of the units required for a master's degree must be courses at the 600- and 700-level. Many programs are more restrictive than this regarding courses at the 500 level. Check the specific program for any further restrictions.

When directed by the Office of Financial Aid and Scholarships, some students may be required to obtain approval when additional coursework, not on the official master's degree program, is required to prepare for a thesis or a project. The additional courses must be recommended by the graduate adviser and approved by the Division of Graduate Affairs in order for the student to receive financial aid.

Master of Arts, Master of Music, Master of Science, and Master of Public Administration Degrees

Thirty to 33 units (36-48 units for the Master of Public Administration, 38 units for the Master of Science degree in psychology, 36 or 44 units for the Master of Arts in speech, language, and hearing sciences) of approved 500-, 600-, and 700-numbered courses earned in graduate standing. At least half of the units required must be in 600- and 700-numbered courses. Not more than nine units in approved extension and transfer courses may be used to satisfy the minimum unit requirement for the degree. Courses required to remove undergraduate deficiencies are in addition to the minimum number of units required for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Business Administration Degree

A minimum of 39 units and up to a maximum of 45 units of 500-, 600-, and 700-level courses earned in graduate standing and specified by the Fowler College of Business. A maximum of six units of 500-level courses are acceptable. Up to 12 units of coursework may be accepted for transfer credit for programs of study consisting of 42 or more units. Up to nine units of coursework may be accepted for transfer credit for programs of study consisting of 39 units. **No more than a total of six units in courses numbered 780, 797, 798 will be accepted for credit toward the degree.**

Master of Business Administration Degree for Executives

A minimum of 48 units of 600- and 700-level courses earned in graduate standing. These courses will be offered in a predetermined pattern. No transfer courses and no substitute courses are accepted.

Master of Business Administration Degree (Sports Business Management)

A minimum of 45 units of 600- and 700-level courses earned in graduate standing. These courses will be offered in a pre-determined pattern. No transfer courses and no substitute courses are accepted.

Master of City Planning Degree

Forty-eight units of approved 500-, 600-, and 700-numbered courses earned in graduate standing, at least 39 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum 48 units for the degree. **No more than a total of nine units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Engineering Degree

Thirty-six units consisting of 500-, 600-, and 700-numbered courses specified by the degree requirements and program director while earned in graduate standing and six units of ENGR 798 (project) which may be taken as two three-unit modules. At least half of the units required must be in 600- and 700-numbered courses. **No more than a total of nine units in approved extension and transfer courses may be used to satisfy the minimum unit requirement for the degree.** Courses required to remove undergraduate deficiencies are in addition to the minimum number of units required for the degree.

Master of Fine Arts in Art Degree

Sixty units of 500-, 600-, and 700-numbered courses earned in graduate standing and specified by the School of Art and Design, at least 24 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum 60 units for the degree. **No more than a total of nine units in course 798 will be accepted for credit toward the degree.**

Master of Fine Arts in Creative Writing Degree

Fifty-four units of 500-, 600-, and 700-numbered courses earned in graduate standing and specified by the Department of English and Comparative Literature, at least 36 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum 54 units for the degree. **No more than a total of six units in course 798 will be accepted for credit toward the degree.**

Master of Fine Arts in Film and Television Production Degree

Fifty-four units of 500-, 600-, and 700-numbered courses earned in graduate standing and specified by the School of Theatre, Television and Film, at least 36 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum 54 units for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Fine Arts in Theatre Arts Degree

Sixty to 63 units of 500-, 600-, and 700-numbered courses earned in graduate standing and specified by the School of Theatre, Television and Film, at least 30 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum 60 units for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Public Health Degree

A minimum of 51 units of approved 500-, 600-, and 700-numbered courses earned in graduate standing. Up to nine units of coursework may be accepted for transfer credit. Courses required to remove undergraduate deficiencies are in addition to the minimum units required for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Science in Bioinformatics and Medical Informatics Degree

Thirty-three units of 500-, 600-, and 700-numbered courses for the standard bioinformatics and medical informatics degree or 38 units of 500-, 600-, and 700-numbered courses for the concentration in professional science master as specified by the degree requirements while earned in graduate standing. At least half of the units required must be in 600- and 700-numbered courses. Courses required to remove undergraduate deficiencies are in addition to the minimum number of units required for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted toward the degree.**

Master of Science in Computational Science Degree

Thirty units of 500-, 600-, and 700-numbered courses for the standard computational science degree or 40 units of 500-, 600-, and 700-numbered courses for the concentration in professional applications as specified by the degree requirements while earned in graduate standing. At least half of the units required must be in 600- and 700-numbered courses. Courses required to remove undergraduate deficiencies are in addition to the minimum number of units required for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Science in Counseling Degree

Sixty units of 600- and 700- numbered courses earned while in graduate standing and specified by the Department of Counseling and School Psychology. Up to 24 units of coursework may be accepted for transfer credit. Courses required to remove undergraduate deficiencies are in addition to the minimum 60 units for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Science in Nursing Degree

A minimum of 37 units of 500-, 600-, and 700- numbered courses earned while in graduate standing and specified by the School of Nursing. Some concentrations or specializations require up to 24 additional units. Courses required to remove undergraduate deficiencies are in addition to the minimum number of units required in each concentration or specialization. Up to 12 units of coursework may be accepted for transfer credit. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Science in Regulatory Affairs Degree

Thirty-nine units of 600- and 700- numbered courses as specified by the director of the regulatory affairs program while earned in graduate standing. No more than 12 units in approved special session courses prior to matriculation and transfer courses may be used to satisfy the minimum unit requirement for the degree. Courses required to remove undergraduate deficiencies are in addition to the minimum number of units required for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Master of Science in Rehabilitation Counseling Degree

Sixty units of 600- and 700-numbered courses earned while in graduate standing and specified by the rehabilitation counseling program, at least 30 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum 60 units for the degree. **No more than a total of six units in ARP 743 will be accepted; no more than a total of 12 units in ARP 744 will be accepted; and no more than a total of nine units in ARP 745 will be accepted toward the degree.**

Master of Social Work Degree

Thirty-eight units of 500-, 600-, 700- numbered courses earned while in graduate standing and for the advanced standing degree or 60-63 units of 500-, 600-, 700-numbered courses earned while in graduate standing and for the standard degree as specified by the School of Social Work at least 30 of which must be completed in residence. Courses required to remove undergraduate deficiencies are in addition to the minimum units for the degree. **No more than a total of six units in courses numbered 797 and 798 will be accepted for credit toward the degree.**

Grade Point Averages

Grade point averages of at least 3.0 (**B**) must be maintained in:

1. All courses listed on the official degree program.
2. All courses, 300-level and above, taken at San Diego State University concurrently with or subsequently to the earliest course listed on the official degree program, including courses accepted for transfer credit.

A grade point average of at least 2.85 must be maintained in all courses on the graduate record. No transfer or extension credit may be used to improve the grade point average of units completed at San Diego State University whether computed to determine the average on the official degree program or the overall average.

Grade Restrictions for Master's Degree Programs

No course in which a final grade below "C" (2.0) was earned may be used to satisfy the requirements for an advanced degree. No 500-, 600-, or 700-numbered courses graded Credit/No Credit except those offered for Credit/No Credit only are acceptable for a master's degree program. No undergraduate courses graded Credit/No Credit may be assigned to the deficiencies listed on a master's degree program. At least 70 percent of the units used to fulfill the minimum requirements on a master's degree program shall be letter graded.

Units graded Credit/No Credit earned in practica, field experiences, and internships explicitly stated as specific requirements for a graduate degree will not be included in the determination of the number of non-lettergraded units allowable on the program of study.

Degree Time Limitations

All requirements for advanced certificates and master's degrees coursework must be completed within six consecutive calendar years after initial registration. All requirements for master's and joint master's degrees entailing more than 36 units must be completed within seven consecutive calendar years after initial registration. Time spent on leave of absence is counted toward the degree time limit. Students who do not graduate by this deadline will be subject to administrative disqualification by the graduate dean. With the approval of the program or department graduate adviser, a student in the sixth academic year of graduate study may appeal to the graduate dean for a one-year time limit extension. Students validating by examination will be required to specify a date-certain by which all requirements for the degree will be completed. Only in exceptional circumstances will this time limit exceed one calendar year from the date of validation. A course or program may be validated by examination only once. Students who exceed the time limit and wish to continue their studies must formally apply for new admission. Programs readmitting students who have been disqualified for exceeding the time limit should consult with the student at the time of readmission to determine whether credits previously earned will meet current degree requirements. Disqualified and readmitted students will be held to current Graduate Bulletin requirements and will need approval from their program adviser to use expired courses. Expired courses from an outside university cannot be used toward the fulfillment of degree requirements.

Subject (Thesis/Dissertation) Research Involving Human Subjects or Animal Subjects

Committee authorization must be obtained in advance of conducting research involving humans or animals. Failure to observe this requirement could result in the refusal of the university to accept the completed thesis/dissertation.

Research in which information is obtained about an individual through the use of a survey, interview, observation or experimentation or which involves analysis of previously collected human tissues, records, samples or other existing or secondary data is subject to review and approval of the Institutional Review Board (IRB). For students enrolled in a joint doctoral program, IRB review

may be required at each campus. Students are responsible for knowing and complying with IRB review requirements at the institution(s) in which they enrolled. IRB review application materials and guidance on the SDSU campus may be obtained online at <https://newscenter.sdsu.edu/researchaffairs/default.aspx>.

Students planning to conduct research that involves the use of live, vertebrate animals must be listed on a protocol approved by the Institutional Animal Care and Use Committee (IACUC) where the research will take place. If the research will occur under a SDSU approved protocol, the student must be listed on the responsible faculty's animal protocol form and receive required training. Application materials used to request a review by the IACUC may be obtained online at <http://gra.sdsu.edu/iacuc> or through the Division of Research Affairs located in Gateway Center, Room 3519.

Upon receipt of written authorization from the relevant committee, IRB or IACUC, students may initiate their research and register for required coursework.

Thesis, Plan A and Non-Thesis, Plan B

Satisfactory completion of a thesis, project, or comprehensive examination is defined as follows:

- a. A thesis is the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and the methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization, language, and format, high level of writing competency, and thorough documentation. In most cases, an oral defense of the thesis is required.
- b. A project is a significant undertaking appropriate to the fine and applied arts or to professional fields. It evidences originality and independent thinking, appropriate form, language use, organization, and rationale. It is described and summarized in a written abstract that includes the project's significance, objectives, methodology, and a conclusion or recommendation. An oral defense of the project may be required.
- c. A comprehensive examination is an assessment of the student's ability to integrate the knowledge of the area, show critical and independent thinking, and demonstrate mastery of the subject matter. The results of the examination evidence independent thinking, appropriate organization and high level of writing competency, critical analysis, and accuracy of documentation. A record of the examination questions and responses shall be maintained in accordance with the records retention policy of the California State University.

Plan A, requiring a thesis or project, may be selected by a student seeking the master's degree, provided the department or school includes 799A, Thesis, on the official program of study. Course 799A represents three units of academic credit and can only be taken Credit/No Credit. A grade of "CR" is granted by the Division of Graduate Affairs upon thesis approval by the thesis committee, the department or school, and the Graduate Council. Students will not be permitted to register in 799A until they have been officially advanced to candidacy, and have an officially approved Thesis or Project Committee Form on file in the Division of Graduate Affairs. Unauthorized registration in this course may result in cancellation of enrollment.

One electronic copy of all master's theses or projects are submitted to the library at San Diego State University and are subject to the policies of the library with respect to the circulation or duplication of its cataloged materials. An additional electronic copy is submitted to the ProQuest ETC (Electronic Thesis & Dissertations) system.

Plan B, requiring a comprehensive written examination in lieu of a thesis, may be followed in certain graduate degree curricula as indicated in Part Five of this bulletin. Dates on which comprehensive examinations are given are determined by the department or school concerned. Results of comprehensive examinations must

be reported to the Division of Graduate Affairs by the department or school. Refer to the academic calendar preceding Part One of this bulletin for deadline dates. To be eligible to take the Plan B comprehensive examination, the student must have been advanced to candidacy.

Thesis Committee

In consultation with the graduate adviser, a student will select a thesis chair. The student, graduate adviser, and committee chair will select the remaining faculty committee members. The student must obtain The Appointment of Thesis Committee Form and the Rights to Thesis/Dissertation Data and Publication Authorship Form from the Division of Graduate Affairs. These forms must be signed by all committee members and the graduate adviser. The Division of Graduate Affairs will then review the composition of the student's committee, verifying that it meets university requirements.

The thesis committee is composed of at least three full-time SDSU faculty members. At least two of the members, including the committee chair, must hold permanent faculty appointments, or be an approved emeritus faculty including faculty in the FERP program. The first two committee members must be faculty from the department or the interdisciplinary faculty group in which the thesis is written. The third committee member must be an SDSU faculty member from a department other than the department in which the thesis is written.

Determination of whether the thesis research will involve human or animal subjects must be made at this point (see Thesis/Dissertation Research Involving Human Subjects or Animal Subjects in this section of the bulletin). If human or animal subjects will be used, appropriate authorization for such use must accompany the thesis committee form when it is submitted to the Division of Graduate Affairs. The thesis committee will not be approved without appropriate research clearance.

Upon official approval of the thesis committee and publication authorship forms by the Division of Graduate Affairs, the student is eligible to enroll in 799A, Thesis. Enrollment must occur during the normal registration period each semester and the schedule numbers for registration are provided by the Division of Graduate Affairs. Registration dates and deadlines are listed in the academic calendar each year.

Theses Embargo

Library and Information Access will restrict (embargo) the use of a thesis or project if the author and the chair of the thesis committee request such action and the graduate dean approves. The purpose of the restriction is to protect the author's right to publish or otherwise exploit the new knowledge before making it available to others. The display of a thesis, dissertation, or project may be embargoed for a period of up to one year upon written request of the student and consent of the dean of the Graduate Division. In the case of joint doctoral degrees, students must notify both schools and comply with each schools' policies. To designate restricted use of a thesis, the author and the thesis committee chair should send a memorandum requesting restricted use to the dean of the Graduate Division. If the dean approves, the request is sent to the Monograph Cataloging Unit, who in turn will withhold from use all copies of the restricted thesis when they are received in Library and Information Access. The author's memorandum to the dean of the Graduate Division requesting restricted use of a thesis should state the following: (1) The reason for the request; (2) The period of restriction (up to one year); and (3) The author's address and telephone number. These will be used by the university's archival librarian in requesting permission for a reader to consult, borrow, or copy the thesis during the period of restriction.

Authors may request a renewal of the restriction period for a second year by sending a memorandum to the associate dean of the Graduate Division specifying the reason for the renewal. Once a thesis or dissertation is published, restricted use is no longer an option.

Theses in Foreign Languages

As presentations of original research to the academic community, theses are ordinarily prepared for the university in the English language. In certain cases, however, for a foreign language degree, a student's thesis in the history and literary analysis of non-English languages and literatures may be presented in the subject language. When the departmental graduate adviser and the prospective thesis committee deem this academically appropriate for the specific research topic, the appointment of the student's thesis committee and authorization of the thesis research by the graduate dean shall be based on the provisions that (1) an abstract of the thesis shall be presented in English; (2) all members of the thesis committee shall be fluent in the subject language; and (3) student competency in standard written English shall be demonstrated through satisfactory completion of a departmental procedure that has been approved by the graduate dean.

To obtain approval by the graduate dean: (1) the "thesis in a foreign language" box must be checked on the appointment of thesis committee form, and (2) written verification by the departmental graduate adviser that provisions 2 and 3 above have been met must be attached to the appointment of thesis committee form when it is submitted to the Division of Graduate Affairs.

Submission of Theses

Final submittal of a thesis requires formal approval of the faculty thesis committee. Thesis manuscripts will only be accepted that conform to the format and presentation requirements specified by the Graduate Council and sponsoring department. These requirements are fully outlined on Montezuma Publishing's website at <http://www.montezumapublishing.com/thesis1/formatting.aspx>.

Students must be enrolled in 799A, Thesis, or 799B, Thesis Extension, in the term in which the thesis is granted approval by the faculty committee and submitted to Montezuma Publishing for review. Students will not be required to register for thesis in any subsequent term, provided the thesis is accepted by Montezuma Publishing by the end of the last working day of the semester in which the student is enrolled in 799A or 799B. Consult the academic calendar preceding Part One of this bulletin for specific deadline dates.

Manuscripts deemed unready for submission, as determined by the Montezuma Publishing reviewer, will be rejected and returned to the student. Manuscripts are considered unready for submission when (1) they are not in compliance with department guidelines as described on Montezuma Publishing's website; (2) they are not in compliance with the university's guidelines as stated on Montezuma Publishing's website (that is, there are gross deficiencies of format or presentation); (3) they are incomplete. Students who cannot meet the final deadline for submission because of such rejection will be required to enroll or reenroll in 799B and reapply for graduation for the following term.

A "Cr" grade in 799A, Thesis, will only be granted upon approval of the thesis and payment of thesis filing fee. The Division of Graduate Affairs is solely responsible for the submission of grades for 799A and 799B. If the entire submission process is not completed by the publication deadline listed in the academic calendar, the student will be required to reapply for graduation for the term they expect to graduate.

If a student submits for review before the last day to submit deadline, but does not pass, the student can resubmit at any point until the last day to submit deadline or within 45 days of receiving a corrections email, whichever comes later. If the student does not pass within this time frame, the thesis will be rejected and the student will have to register in 799B, Thesis Extension, the following semester and re-apply for graduation.

A student must pay for publication within 90 days of the notification that they have passed review. If a student fails to pay for publishing within this time frame, the thesis will be rejected and the student will have to register in 799B, Thesis Extension, the following semester and re-apply for graduation.

Final Approval

The student's official program of study, as approved by the graduate adviser and the graduate dean, and all required examinations must be completed satisfactorily in order for the Graduate Council to recommend a student for an advanced degree.

Writing Competency

The university requires that all candidates for an advanced degree demonstrate writing competency in the English language. This requirement may be met by successful completion of the written comprehensive examination in Plan B or final approval of a thesis or project in Plan A.

In accordance with the Americans with Disabilities Act, individuals with a disability who are in need of an accommodation in order to fulfill this requirement should so notify their graduate adviser and appropriate accommodation(s) shall be made.

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 via their web portal. Deadlines by which applications must be received in the Division of Graduate Affairs are published each year in the academic calendar and on the GRA website at: <http://aztecgrad.sdsu.edu/gra/>.

A nonrefundable graduation application fee of \$55.00 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 has been filed with Graduate Admissions. For all other graduation or cancellation information please visit: <http://aztecgrad.sdsu.edu/gra/>.

Award of Degree

Upon the recommendation of the faculty of San Diego State University, the Board of Trustees of the California State University awards the appropriate degree to a student who has completed the prescribed course of study. The process of posting degrees to transcripts will take approximately six to eight weeks. Candidates for graduation whose record carries a grade of Incomplete (I) or a Report in Progress (RP) will graduate provided they are otherwise eligible for graduation. However, the Incomplete (I) or Report in Progress (RP) cannot be made up after the degree has been granted. An incomplete course will be counted as an F for grade point average purposes at the time of graduation. If students do not wish to graduate with the grade of Incomplete (I) or Report in Progress (RP) on their record, they must officially cancel their application for graduation.

Diploma

The Division of Graduate Affairs will mail the appropriate diploma to the student approximately eight to ten weeks after the date of graduation. It is the student's responsibility to provide the correct mailing address through their WebPortal.

Commencement

Commencement exercises are held each year at the conclusion of the spring semester for students completing degrees in the spring and summer terms, or the fall term in the previous calendar year. Details regarding commencement are mailed to prospective participants in March, and are available on the commencement website at <http://go.sdsu.edu/commencement>.

Requirements for Doctoral Degrees

Doctoral programs at San Diego State University are offered jointly with other doctoral-granting institutions in California. In developing each program, there has been a consistent effort to provide students with a unique educational experience that is not duplicated on either campus alone. The university currently offers 22 doctoral degrees (Ph.D., Ed.D., Au.D., DPT).

The following Ph.D. and Au.D. programs are offered jointly by San Diego State University and the University of California, San Diego:

- **Audiology**
<http://slhs.sdsu.edu/programs/aud>
- **Biology (Cell and Molecular)**
<http://www.bio.sdsu.edu/cmob/>
- **Chemistry**
<http://www.chemistry.sdsu.edu/chemistry/degrees.php#jdp>
- **Clinical Psychology**
<http://clinpsyc.sdsu.edu>
- **Engineering Sciences (Bioengineering)**
- **Engineering Sciences (Electrical and Computer Engineering)**
- **Engineering Sciences (Mechanical and Aerospace Engineering)**
- **Engineering Sciences (Structural Engineering)**
http://www.engineering.sdsu.edu/engineering/joint_doc-toral_program.aspx
- **Geophysics**
<http://sci.sdsu.edu/geology/jdp/opportunity/>
- **Interdisciplinary Research on Substance Use**
<http://socialwork.sdsu.edu/degrees-programs/graduate-programs/phd-substance-use-studies>
- **Language and Communicative Disorders**
<http://slhs.sdsu.edu/programs/phd>
- **Mathematics and Science Education**
<http://www.sci.sdsu.edu/crmse/msed/>
- **Public Health Epidemiology/Health Behavior/Global Health**
<http://publichealth.sdsu.edu/program/graduate/phd/>

Joint Ph.D. programs are offered in:

- **Ecology**
(San Diego State University and the University of California, Davis)
http://www.bio.sdsu.edu/ecology/prog_phd.php
- **Evolutionary Biology**
(San Diego State University and the University of California, Riverside)
<http://www.bio.sdsu.edu/eb/jdeb.html>
- **Computational Science/Statistics**
(San Diego State University and University of California, Irvine)
<http://www.csrc.sdsu.edu/doctoral.html>
- **Education**
(San Diego State University and Claremont Graduate University)
<http://go.sdsu.edu/education/>
- **Geography**
(San Diego State University and the University of California, Santa Barbara)
<http://geography.sdsu.edu/programs/doctoral>

The general requirements in these programs are identical; however, each program has some specific requirements that will be found in Part Five of this bulletin under the program headings.

A doctorate in **Education (Ed.D.)** in Educational Leadership PreK-12 School Leadership or Community College Postsecondary Leadership is offered by San Diego State University, <http://go.sdsu.edu/education/cclead/> or <http://go.sdsu.edu/education/edl/>. The specific requirements for this program will be found in Part Five of this bulletin under Education.

A **Doctor of Physical Therapy (DPT)** degree is offered by San Diego State University, <http://ens.sdsu.edu/academic-programs/graduate/dpt/>. The specific requirements for this program will be found in Part Five of this bulletin under Exercise and Nutritional Sciences.

The materials presented in the above referenced websites are for information only. The Graduate Bulletin embodies the official policies and curriculum pertaining to each of the doctoral programs.

Admission to Graduate Study

An applicant for admission to a doctoral program must be admitted to regular graduate standing at the appropriate campus of the University of California or the Claremont Graduate University, and to San Diego State University. Fees and regulations governing the doctoral programs are found in the SDSU Graduate Bulletin and in the graduate bulletin of each of the cooperating campuses. Formal admission to the universities with appropriate graduate standing occurs when the student is formally accepted by each of the universities. Applicants are advised to consult the appropriate program director at San Diego State University for specific details on application procedures.

Residence Requirements

After formal admission to a doctoral program, the student must spend at least one year in full-time residence on each of the two campuses. The definition of residence must be in accord with the regulations of the university cooperating with SDSU. At San Diego State University, the minimum of one year of full-time residence consists of registration in and completion of at least nine semester units of graduate level courses or six semester units of research or dissertation courses each semester of the required year's residence. All doctoral students must be continually enrolled or pay a continuation fee at one campus or the other each semester or quarter in order to maintain good standing.

Financial Support

Ph.D. students are eligible to apply for financial aid through the Office of Financial Aid and Scholarships at San Diego State University. The SDSU Research Foundation provides some scholarship funds to cover all or part of the fees and tuition required by each institution for students in many of the doctoral programs. These funds are partially derived from the Richard G. Ahrens Memorial Scholarship and Reuben C. Marks Endowment Funds. In addition, most programs offer doctoral students financial support by providing appointments as research assistants, graduate assistants, or graduate teaching associates.

Procedures

Doctoral students are expected to make steady progress toward completion of requirements for the degree. The time required depends less on units of credit or semesters of attendance than it does on the mastery of the subject matter field and completion of a satisfactory dissertation. In doctoral programs with time limits to advancement to candidacy or the degree, students must meet those time limits or a hold will be placed on their registration. Doctoral students must maintain a 3.0 grade point average in all coursework attempted to remain in good standing. Some programs may have additional GPA requirements.

Information on records, transcripts, fees, details of registration, petitions, and rules and regulations governing graduate students enrolled in the doctoral program is available from each of the two cooperating institutions for each degree program.

Qualifying Examinations, Advancement to Candidacy, and the Dissertation

Although the procedural details of each doctoral program vary somewhat within the different programs, the general requirements are:

1. The student is examined by a committee representing the faculty of the cooperating institutions for knowledge of the field of study. This qualifying examination ordinarily consists of both written and oral parts. The purpose of this examination is to satisfy the faculty of the cooperating departments that the student is adequately prepared in the discipline to warrant continuation in the program.
2. After passing the qualifying examination the student applies to the graduate dean at the cooperating campus with which the student is associated for advancement to candidacy. After approval by both graduate deans, the student will be notified of advancement to candidacy by the graduate dean of the University of California campus or the Claremont Graduate University.
3. A dissertation on a subject chosen by the candidate and approved by a committee appointed by the graduate deans of the cooperating institutions is required of every candidate. Approval of the dissertation by this committee affirms that the candidate has conducted an organized, independent investigation that has added significantly to the body of knowledge in the particular field and that has been reported in a satisfactory manner. Upon completion of the dissertation, the candidate must pass an oral examination conducted by a joint committee in which the student is required to show the relationship of the dissertation to the general field in which the subject lies and to answer specific questions concerning the investigations. In addition to meeting the requirements of the cooperating campus for filing the dissertation, doctoral students are required to submit a copy of the dissertation to Montezuma Publishing for submission to ProQuest. Students should contact the Division of Graduate Affairs prior to submitting the dissertation to Montezuma Publishing. Binding must meet the ALA library standard. Ed.D. students will deposit their dissertation with the thesis and dissertation review service at San Diego State University. Instead of a dissertation, a doctoral project is required for the Doctor of Audiology and the Doctor of Physical Therapy, and bound copies reside within the respective departments rather than with the library.
4. San Diego State University **requires** that the student be enrolled in 899 (Dissertation or Doctoral Project) in the term in which the dissertation is turned in. Students in the Doctor of Audiology program, whose chair is at UCSD, enroll in doctoral project (AUD 299) at UCSD instead of 899 at SDSU. Students are also required to fill out the Survey of Earned Doctorates at both SDSU and the cooperating campus at the time the dissertation is submitted.

Subject (Thesis/Dissertation) Research Involving Human Subjects or Animal Subjects

Committee authorization must be obtained in advance of conducting research involving humans or animals. Failure to observe this requirement could result in the refusal of the university to accept the completed thesis/dissertation.

Research in which information is obtained about an individual through the use of a survey, interview, observation or experimentation or which involves analysis of previously collected human tissues, records, samples or other existing or secondary data is subject to review and approval of the Institutional Review Board (IRB). For students enrolled in a joint doctoral program, IRB review may be required at each campus. Students are responsible for knowing and complying with IRB review requirements at the institution(s) in which they are enrolled. For general information, application procedures, guidance on ethical practices, and submission deadlines, visit <http://newscenter.sdsu.edu/researchaffairs>. You may also e-mail irb@mail.sdsu.edu or call 619-594-6622.

Students planning to conduct research that involves the use of live, vertebrate animals must be listed on a protocol approved by the Institutional Animal Care and Use Committee (IACUC) where the research will take place. If the research will occur under a SDSU approved protocol, the student must be listed on the responsible faculty's animal protocol form and receive required training. Application materials used to request a review by the IACUC can be obtained via the Internet at <http://newscenter.sdsu.edu/researchaffairs>.

Upon receipt of written authorization from the relevant committee, IRB or IACUC, students may initiate their research and register for required coursework.

Award of Degree

The degree Doctor of Philosophy in Biology, Chemistry, Clinical Psychology, Computational Science, Ecology, Education, Engineering Sciences (Bioengineering/Electrical and Computer/Mechanical and Aerospace/Structural), Evolutionary Biology, Geography, Geophysics, Interdisciplinary Research on Substance Use, Language and Communicative Disorders, Mathematics and Science Education, Public Health, or the professional doctorate in Audiology will be awarded jointly by the regents or trustees of the cooperating institution and the trustees of The California State University in the names of San Diego State University and the appropriate cooperating university campus. The degrees of Doctor of Education in educational leadership and Doctor of Physical Therapy will be awarded by the trustees of The California State University. Students are encouraged to participate in the commencement ceremonies of both institutions providing they have completed all degree requirements, including the submission of copies of the approved dissertation by the deadlines of the respective institutions. The deadline dates of the cooperating institutions will vary. Students who intend to participate in the commencement ceremonies at San Diego State University should consult the academic calendar for the last date to submit an approved copy of the dissertation to the Division of Graduate Affairs. **San Diego State University also requires that students apply for graduation in any term they intend to graduate. Consult the academic calendar for the deadline date.**



5

PART

Summary of Curricula

Course Information

Accreditation

Course Abbreviations

Courses and Curricula

Summary of Curricula Offered

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 Fowler College of Business offers the Bachelor of Science degree in business administration with majors in seven fields; the College of Engineering offers the Bachelor of Science degree in engineering with majors in six fields; and the College of Education offers curricula in teacher education leading to graduate credentials at all levels of public school teaching.

The School of Speech, Language, and Hearing Sciences offers curricula leading to clinical certification and graduate credentials in speech pathology, audiology, and speech, language, and hearing sciences.

The School of Nursing offers the Bachelor of Science degree and the Master of Science degree in Nursing (areas of concentration are advanced practice nursing of adults and the elderly, nursing education, nursing leadership in health care systems, and women's health and midwifery), and offers a curriculum leading to registered nurse licensure, public health nurse credential, health services credential (school nurse services), and nurse educator.

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

Graduate Curricula. The Division of Graduate Affairs offers curricula in the various colleges and departments leading to the Master of Arts and Master of Science degrees in a wide variety of fields, the Master of Arts in Teaching, the Master of Business Administration, the Master of Business Administration and Juris Doctor, the Master of City Planning, the Master of Engineering, the Master of Fine Arts in Art, the Master of Fine Arts in Creative Writing, the Master of Fine Arts in Film and Television Production, 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, and the Master of Social Work and Juris Doctor.

Also offered are the Educational Specialist in school psychology, the Doctor of audiology (Au.D.), the Doctor of Education in educational leadership (Ed.D.), the Doctor of Physical Therapy (DPT), and Doctor of Philosophy (Ph.D.) in biology (cell and molecular), chemistry, clinical psychology, computational science/statistics, ecology, education, engineering sciences (bioengineering), engineering sciences (electrical and computer engineering), engineering sciences (mechanical and aerospace engineering), engineering sciences (structural engineering), evolutionary biology, geography, geophysics, interdisciplinary research on substance use, language and communicative disorders, mathematics and science education, and public health.

Degrees, Credentials, and Certificates

San Diego State University offers the following authorized graduate degrees, credentials, and advanced certificates at the post-baccalaureate level:

Doctor of Philosophy

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

Biology (Cell and Molecular)
Chemistry
Clinical Psychology
Computational Science
Computational Science/Statistics
Ecology
Education
Engineering Sciences (Bioengineering)
Engineering Sciences (Electrical and Computer Engineering)
Engineering Sciences (Mechanical and Aerospace Engineering)
Engineering Sciences (Structural Engineering)
Evolutionary Biology
Geography
Geophysics
Interdisciplinary Research on Substance Use
Language and Communicative Disorders
Mathematics and Science Education
Public Health/Epidemiology
Public Health/Global Health
Public Health/Health Behavior

Doctor of Education

Educational Leadership:
Community College/ Postsecondary Leadership
PreK-12 Leadership

Professional Doctorates

The professional doctorate degree is offered in the following fields:

Audiology
Doctor of Physical Therapy

Educational Specialist

The educational specialist degree is offered in the following field:
Ed.S. in School Psychology

Master Of Fine Arts

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

Art
Creative Writing
Film and Television Production
Theatre Arts

Master of Arts

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

Anthropology	Linguistics
Art	Mathematics
Asian Studies	Music
Biology	Philosophy
Chemistry	Physics
Chicana and Chicano Studies	Political Science
Communication	Psychology
Economics	Rhetoric and Writing Studies
Education	Sociology
English	Spanish
French	Speech, Language, and Hearing Sciences
Geography	Teaching
History	Theatre Arts
Interdisciplinary Studies	Women's Studies
Latin American Studies	
Liberal Arts and Sciences	

Master of Science

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

Accountancy	Geological Sciences
Aerospace Engineering	Gerontology
Applied Mathematics	Homeland Security
Astronomy	Hospitality and Tourism Management
Bioengineering	Information Systems
Bioinformatics and Medical Informatics	Interdisciplinary Studies
Biology	Kinesiology
Business Administration	Mechanical Engineering
Chemistry	Medical Physics
Child Development	Microbiology
Civil Engineering	Nursing
Computational Science	Nutritional Sciences
Computer Science	Physics
Counseling	Psychology
Criminal Justice and Criminology	Public Health
Electrical Engineering	Regulatory Affairs
Exercise Physiology	Rehabilitation Counseling
Geography	Statistics

Professional Master's Degrees

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

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 Administration and Master of Arts in Latin American Studies
Master of Public Health and Master of Arts in Latin American Studies
Master of Science in Nutritional Science and Master of Science in Exercise Physiology
Master of Social Work and Juris Doctor
Master of Social Work and Master of Public Health

Graduate Concentrations

A concentration is defined as an aggregate of courses within a degree major designed to give a student specialized knowledge, competence, or skill. Completion of a concentration is noted on the student's transcript.

Applied Mathematics (M.S.)

Concentrations:
Dynamical Systems
Mathematical Theory of Communication Systems

Art (M.A.)

Concentrations:
Art History
Studio Arts

Bioinformatics and Medical Informatics (M.S.)

Concentration:
Professional Science Master

Biology (M.A. or M.S.)

Concentrations:
Ecology
Evolutionary Biology
Molecular Biology
Physiology

Business Administration (M.S.)

Concentrations:
Entrepreneurship
Finance
Financial and Tax Planning
Information Systems
International Business
Management

Marketing
Real Estate
Supply Chain Management
Taxation

Child Development (M.S.)

Concentration:
Early Childhood Mental Health

Civil Engineering (M.S.)

Concentration:
Environmental Engineering

Computational Science

Concentration (M.S.):
Data Science
Professional Applications
Concentration (Ph.D.):
Statistics

Counseling (M.S.)

Concentrations:
Marriage and Family Therapy
Multicultural Community Counseling Community-Based Block
School Counseling
School Psychology

Education (M.A.)

Concentrations:
Counseling
Dual Language and English Learner Education
Educational Leadership
Elementary Curriculum and Instruction
Learning Design and Technology
Mathematics Education
Reading Education
Secondary Curriculum and Instruction
Special Education

Geography (M.S.)

Concentrations:
Geographic Information Science
Watershed Science

Nursing (M.S.)

Concentrations:
Advanced Practice Nursing of Adults and the Elderly
Community Health Nursing
Nursing Education
Nursing Leadership in Health Care Systems
Women's Health and Midwifery

Psychology (M.S.)

Concentrations:
Applied Psychology: Program Evaluation
Applied Psychology: Industrial and Organizational Psychology
Clinical Psychology (included within the Ph.D. program; not available separately)

Public Administration (M.P.A.)

Concentrations:
City Planning
Criminal Justice Administration

Public Health

Concentrations (M.P.H.):
Biometry
Environmental Health
Epidemiology
Health Management and Policy
Health Promotion and Behavioral Science
Concentration (M.S.):
Environmental Health Sciences
Concentrations (Ph.D.):
Epidemiology
Global Health
Health Behavior

Rehabilitation Counseling (M.S.)

Concentration:
Clinical Rehabilitation and Clinical Mental Health Counseling

Speech, Language, and Hearing Sciences (M.A.)

Concentrations:
Communicative Sciences

Summary of Curricula Offered

Speech-Language Pathology

Statistics (M.S.)

Concentration:

Biostatistics

Teaching (M.A.T.)

Concentrations:

Elementary Education

Language Arts Education (Summer only)

Mathematics Education

Reading/Language Arts Education

Science Education

Secondary Education

Theatre Arts (M.F.A.)

Concentrations:

Acting

Design and Technology

Musical Theatre

Credentials Offered

Added Authorizations

Bilingual, with an emphasis in biliteracy for K-12

Reading and Literacy

Teaching Credentials

Multiple subject; internship

Multiple subject bilingual 2042

emphasis: Spanish; internship

Multiple subject and special education bilingual (Spanish)

Single subject; internship

Single subject bilingual 2042

Specialist Credentials

BCLAD

Reading and literacy leadership

Special education:

Early Childhood Special Education,
preliminary and clear; internship credential

Mild/Moderate Disabilities, preliminary and clear;
internship credential

Moderate/Severe Disabilities, preliminary and clear;
internship credential

Service Credentials

Administrative; internship

Pupil personnel:

Child welfare and attendance

School counseling

School nurse

School psychology

School social work

School nurse services

Speech language pathology

Graduate Certificate Programs (nondegree)

Artist Diploma

Behavior Analysis

Bilingual (Spanish) Special Education

Bilingual Speech-Language Pathology

Children's/Adolescent Literature

Cognitive Disabilities

Communication Systems

Community College Teaching

Developing Gifted Potential

Distance Education

Dual Language Academic Literacy

Early Childhood Special Education

Early Childhood Transdisciplinary

Education and Mental Health

Educational Facility Planning

English Language Development for

Academic Literacy

Executive Financial Planner

Instructional Design

Intellectual Property and Regulatory Affairs

Instructional Technology

International Security and Trade

Lesbian, Gay, Bisexual, and Transgender Studies

Linked Learning

Mental Health Recovery and Trauma

Informed Care

Nursing Education

Preventive Medicine Residency

Professional Computational Science

Psychiatric Rehabilitation

Public Health

Regulatory Affairs

Rehabilitation Administration

Rehabilitation Counseling

Rehabilitation Technology

Residency Training In Radiation Therapy Physics

Social Work Administration

Supported Employment and Transition Specialist

Teaching English as a Second or Foreign

Language (TESL/TEFL)

Teaching of Writing

Web and Mobile Applications Development

Women's Studies

Workforce Education and Lifelong Learning

Graduate Certificate Programs

The advanced certificate at the post-baccalaureate entry level provides students a program of coursework leading to a specific applied goal. The general educational background of a bachelor's degree with a major in the appropriate field(s) of study is prerequisite to such a certificate. Courses taken for advanced certificate program may be applied to a master's degree with the recommendation of the program adviser and approval from the Division of Graduate Affairs. A student wishing to be admitted to an advanced certificate must meet the criteria specified under General Admission Requirements. The student must also meet the professional, personal, scholastic, and other standards prescribed by the appropriate department and the Graduate Council. Advanced certificate students are governed by the same regulations as master's degree students when accepting courses taken prior to matriculation. Students in an advanced degree program that wish to add the advanced certificate concurrently must be formally admitted no later than halfway through the units required for the advanced certificate. It is the student's responsibility to maintain a grade point average of at least a 3.0 in all certificate courses, earn at least a grade of C (or better if specified by the department) on courses required for the certificate. A certificate must be completed within seven years and a student must maintain good academic standing. With the recommendation of the program adviser and approval of the Division of Graduate Affairs, a student may include up to six units of 596 and 696 courses toward the fulfillment of the requirements. Courses used towards the fulfillment of a basic certificate cannot be used to fulfill the requirements for an advanced certificate.

Graduate students interested in a basic certificate should first consult with the appropriate department and the Office of Financial Aid and Scholarships regarding course requirements and financial aid implications.

Course Information

This section contains the specific requirements for all graduate degrees authorized at San Diego State University by the board of trustees of the California State University. These specific requirements of departments or schools supplement and are in addition to the basic requirements for advanced degrees as stated in Part Four of this bulletin. All official master's degree programs must be prepared in conformity with the specific requirements for the degree in question.

In addition, courses acceptable for credit toward an advanced degree are listed under major fields and areas of concentration. Each course is listed by department number, title, and units. Not all courses are offered every semester or every academic year. Ordinarily each listed course will be offered not less than once during a two-year period. Refer to the *Class Schedule* for a listing of course offerings.

San Diego State University reserves the right to withdraw any course listed in the *Class Schedule* for which the enrollment is not sufficient to warrant the organization of a class.

Absence from Class

Instructor Initiated Drop Policy

Students who do not attend the first class session of a course may be dropped from that course by the instructor within the first eight class days of the semester. Students who do not meet prerequisite requirements can also be dropped within the first eight 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>. Summer deadlines vary by session. Consult the *Class Schedule* for specific dates.

NOT ALL INSTRUCTORS WILL DROP STUDENTS WHO MISS THE FIRST CLASS SESSION OR FOR LACK OF PREREQUISITES. 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 schedule adjustment period.

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

The schedule adjustment period allows students to drop a course, add a course, withdraw from the university, and change the grading basis of a course. The schedule adjustment deadline is at 11:59 p.m. on the 10th day from the first day of classes. Students are not allowed to make any schedule adjustments after this deadline and are responsible for knowing the current semester's date for this deadline, which can be found on the academic calendar and the *Class Schedule* registration notice. Summer deadlines vary by session. Consult the *Class Schedule* for specific dates.

Credit Hour or Unit

As of July 1, 2011, federal law (Title 34, Code of Federal Regulations, sections 600.2 and 600.4) requires all accredited institutions to comply with the federal definition of the credit hour. For all CSU degree programs and courses bearing academic credit, the "credit hour" is defined as "the amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately 15 weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
2. At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours."

A credit hour is assumed to be a 50-minute period. In courses in which "seat time" does not apply, a credit hour may be measured by an equivalent amount of work, as demonstrated by student achievement.

Prerequisites for Graduate Courses

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 bulletin, to evaluate equivalent preparation, and to require proof that such prerequisites/preparation have been completed. Faculty may, during the first week of classes, request students without the prerequisites or equivalent preparation to take formal action to drop the course. Failure to comply will result in a failing grade.

Special Topics Courses 596 and 696

No more than 12 units of coursework numbered 596 and/or 696 may be applied to a graduate degree; up to six units for an advanced certificate program with approval of the graduate adviser and graduate dean of the Division of Graduate Affairs. Special topics courses may also not constitute more than half the units toward a degree or certificate program.

Special Prerequisites for Registration in 798 and 799A

Registration in course 798, Special Study, must be arranged through the instructor, the major adviser, and the chair of the department concerned. Forms for this purpose are available in the departmental offices.

Only those students who have been advanced to candidacy and who have an officially appointed thesis committee are permitted to register for course 799A, Thesis. The student must obtain clearance for registration in this course from the Division of Graduate Affairs. Failure to obtain this clearance may result in cancellation of enrollment.

Thesis Extension (799B)

This course is intended solely for those graduate students who have had prior registration in Thesis 799A with an assigned grade symbol of SP or RP. Credit is issued for 799B if the final version of the thesis (approved by Montezuma Publishing) is submitted, paid for, and published by the publishing deadline that semester. If this does not happen, the 799B course has not been completed and a grade of NC (no credit) is issued. After receiving a grade of NC in 799B, students can register again for 799B in a future semester. A grade of NC is issued each time a 799B student does not submit his or her thesis to Montezuma Publishing by that semester's deadline. Although credit may be given retroactively for the outstanding report in progress (RP) in 799A, any 799B NC grades from previous semesters remain NC.

Comprehensive Examination Extension (799C)

Enrollment in 799C (0 units) is intended solely for those graduate students who have completed all degree requirements except for the comprehensive examination (Plan B) option. Enrollment in 799C is not necessary if a student is enrolled in other coursework during the semester they take the comprehensive examination. Enrollment in 799C is limited to two semesters. A grade of NC is issued for 799C if during the term the student is registered in 799C does not complete the comprehensive exam. Students who have satisfied the comprehensive exam requirement are not allowed to register in 799C.

Special Prerequisite for Registration in 899

Registration in course 899, Doctoral Dissertation, is limited to those doctoral students who have been advanced to candidacy and who have an officially appointed dissertation committee.

Hybrid, Online, and Intercampus Courses

Hybrid, online, and intercampus classes involve a formal educational process in which student and instructor are not necessarily in the same physical location, but interact in a synchronous or asynchronous manner through technology. Classes in which 20% to 50% of the scheduled sessions are conducted through this process are defined as hybrid. Classes in which greater than 50% of the scheduled sessions are conducted through this process are defined as online. Classes in which the instructor is located on one SDSU campus and interacts with students on another SDSU campus shall be defined as intercampus; such intercampus classes shall be arranged through consultations between the instructor and the appropriate personnel on each campus. For all three class modes, any required synchronous interactions (e.g., weekly sessions, aperiodic examinations, capstone presentations) shall be clearly established in the official schedule of classes with respect to specific dates, days, times, and locations as appropriate. Hybrid, online, and intercampus courses offered each term can be found in the *Class Schedule*.

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 and contact information is posted outside each faculty member's office door and on their course syllabi.

Accreditation

San Diego State University is accredited by the Senior College and University Commission of the Western Association of Schools and Colleges, 985 Atlantic Avenue, Suite 100, Alameda CA 94501, 510-748-9001; FAX 510-748-9797; <http://www.wascsenior.org>. It is also approved to train veterans under the G.I. Bill.

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

Accreditation Board for Engineering and Technology (ABET)

415 N. Charles Street
Baltimore, MD 21201
410-347-7700, <http://www.abet.org>

Accreditation Council for Graduate Medical Education

(Preventive Medicine Residency Program)
401 North Michigan Avenue, Suite 2000
Chicago, IL 60611
312-755-7498, <https://www.acgme.org>

American Chemical Society

Committee on Professional Training
1155 Sixteenth Street, NW
Washington, D.C. 20036
202-872-4600, <http://www.acs.org>

American College of Nurse Midwives Accreditation

Commission for Midwifery Education
8403 Colesville Road, Suite 1550
Silver Spring, MD 20910
240-485-1800, <http://www.midwife.org>

American Psychological Association (Clinical Psychology)

750 First Street, NE
Washington, D.C. 20002
202-336-5500, <http://www.apa.org>

California Commission on Teacher Credentialing

1900 Capitol Avenue
Sacramento, CA 95811
888-921-2682, <http://www.ctc.ca.gov>

Commission on Accreditation Athletic Training Education

6850 Austin Center Boulevard, Suite 100
Austin, TX 78731
512-733-9700, <http://www.caate.net>

Commission on Accreditation of Healthcare Management Education

6110 Executive Boulevard, Suite 614
Rockville, MD 20852
301-298-1820, <http://www.cahme.org>

Commission on Accreditation for Marriage and Family Therapy Education

112 South Alfred Street
Alexandria, VA 22314
703-838-9808, <http://www.aamft.org/IMIS15/AAMFT>

Commission on Accreditation in Physical Therapy Education

1111 North Fairfax Street
Alexandria, VA 22314
703-684-2782, <http://www.captetonline.org>

Council for Interior Design Accreditation

206 Grandville Avenue, Suite 350
Grand Rapids, MI 49503
616-458-0400, <http://www.accredit-id.org>

Council of Graduate Schools

One Dupont Circle, NW, Suite 230
Silver Spring, MN 20910
202-789-1050, <http://www.cgsnet.org>

Council on Academic Accreditation in Audiology and Speech-Language Pathology

2200 Research Boulevard
Rockville, MD 20850
301-296-5700, <http://www.asha.org>

Council on Education for Public Health

1010 Wayne Avenue, Suite 220
Washington, D.C. 20005
202-789-1050, <http://www.ceph.org>

Council for the Accreditation of Counseling and Related Educational Programs (CACREP)

1001 North Fairfax Street, Suite 510
Alexandria, VA 22314
703-535-5990, <http://www.cacrep.org>

Council on Social Work Education (CSWE)

1701 Duke Street, Suite 200
Alexandria, VA 22314
703-683-8080, <http://www.cswe.org>

National Association for the Education of Young Children

1313 L Street, NW, Suite 500
Washington, DC 20005
202-232-8777, <http://www.naeyc.org>

National Association of School Psychologists

4340 East West Highway, Suite 402
Bethesda, MD 20814
301-657-0270, <http://www.nasponline.org>

National Association of Schools of Art and Design

11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700, <http://nasad.arts-accredit.org>

National Association of Schools of Theatre

11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700, <http://nast.arts-accredit.org>

National Council for Accreditation of Teacher Education

1140 19th Street, Suite 400
Washington, D.C. 20036
202-223-0077, <http://www.ncate.org>

National Council on Rehabilitation Education

1099 E. Champlain Drive, Suite A, #137
Fresno, CA 93740
559-906-0787, <http://www.ncre.org>

National Recreation and Park Association

22377 Belmont Ridge Road
Ashburn, VA 20148
800-626-6772, <http://www.nrpa.org>

Network of Schools of Public Policy, Affairs, and Administration

1029 Vermont Avenue, NW, Suite 1100
Washington, DC 20005
202-628-8965, <http://naspa.org>

Western Association of Graduate Schools

University of Washington, The Graduate School
Box 351240
Seattle, WA 98195
206-543-9054, <http://www.wagsonline.org>

In addition, San Diego State University is accredited by the following agencies:

The Fowler College of Business 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 Fowler College of Business programs are registered with the Certified Financial Planner Board of Standards, 1425 K Street, NW, Suite 500, Washington, D.C. 20005, 202-379-2200.

The College of Engineering undergraduate programs in aerospace engineering, civil engineering, computer engineering, construction engineering, electrical engineering, environmental engineering and mechanical engineering are accredited by the Engineering Accreditation Commission (EAC) of ABET, 415 N. Charles Street, Baltimore, MD 21201, 410-347-7700, <http://www.abet.org>.

The School of Journalism and Media Studies programs in advertising, journalism, and public relations are accredited by the Accrediting Council on Education in Journalism and Mass Communications, Stauffer-Flint Hall, 1435 Jayhawk Boulevard, Lawrence, KS 66045, 785-864-3973, <http://www.acejmc.org>.

The School of Nursing is approved by the California State Board of Nursing, State of California, Department of Consumer Affairs, 400 R Street, Suite 4030, Sacramento, CA 95814, 916-322-3350. The baccalaureate and master's degrees in the School of Nursing are accredited by the Commission on Collegiate Nursing Education, 655 K Street NW, Suite 750, Washington, DC 20001, 202-887-6791, <http://www.aacnnursing.org/CCNE>.

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 undergraduate program in Athletic Training in the School of Exercise and Nutritional Sciences is accredited by the Commission on Accreditation of Athletic Training Education, 2201 Double Creek Drive, Suite 5006, Round Rock, TX 78664, 512-733-9700, <http://www.caate.net>.

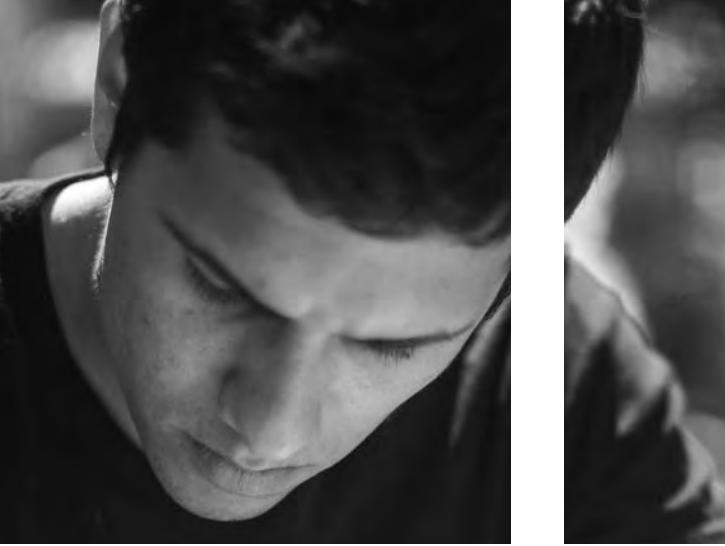
Foods and Nutrition, the Didactic Program in Dietetics in the School of Exercise and Nutritional Sciences is approved by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606, 800-877-1600, <http://www.eatright.org>.

Course Information

Course Abbreviations

ACCTG.....Accountancy
 ARP.....Administration, Rehabilitation and
 Postsecondary Education
 A E.....Aerospace Engineering
 A S.....Aerospace Studies
 AFRAS.....Africana Studies
 AMIND.....American Indian Studies
 ANTH.....Anthropology
 ARAB.....Arabic
 ART.....Art
 ASIAN.....Asian Studies
 ASTR.....Astronomy
 AUD.....Audiology
 BIOMI.....Bioinformatics and Medical Informatics
 BIOL.....Biology
 B A.....Business Administration
 CAL.....Arts and Letters
 CHEM.....Chemistry
 CCS.....Chicana and Chicano Studies
 CFD.....Child and Family Development
 CHIN.....Chinese
 C P.....City Planning
 CIV E.....Civil Engineering
 CLASS.....Classics
 COMM.....Communication
 CINTS.....Comparative International Studies
 C LT.....Comparative Literature
 COMP.....Computational Science
 COMPE.....Computer Engineering
 CS.....Computer Science
 CON E.....Construction Engineering
 CSP.....Counseling and School Psychology
 CJ.....Criminal Justice
 DANCE.....Dance
 DPT.....Doctor of Physical Therapy
 DLE.....Dual Language and English Learner Education
 ECON.....Economics
 ED.....Education
 EDL.....Educational Leadership
 E E.....Electrical Engineering
 ENGR.....Engineering
 ENGL.....English
 ENV E.....Environmental Engineering
 ENV S.....Environmental Science
 EUROP.....European Studies
 ENS.....Exercise and Nutritional Sciences
 FILIP.....Filipino
 FIN.....Finance
 FRENC.....French
 GEN S.....General Studies
 GEOG.....Geography
 GEOL.....Geological Sciences
 GERMN.....German
 GERO.....Gerontology
 HHS.....Health and Human Services
 HEBRW.....Hebrew
 HIST.....History
 H SEC.....Homeland Security

HONOR.....Honors College
 HTM.....Hospitality and Tourism Management
 HUM.....Humanities
 INT S.....Interdisciplinary Studies
 I B.....International Business
 ISCOR.....International Security and Conflict Resolution
 ITAL.....Italian
 JAPAN.....Japanese
 JS.....Jewish Studies
 JMS.....Journalism and Media Studies
 KOR.....Korean
 LATAM.....Latin American Studies
 LDT.....Learning Design and Technology
 LGBT.....Lesbian, Gay, Bisexual, and Transgender Studies
 LIB S.....Liberal Studies
 LING.....Linguistics
 MGT.....Management
 MIS.....Management Information Systems
 MKTG.....Marketing
 MALAS.....Master of Liberal Arts and Sciences
 MATH.....Mathematics
 M S E.....Mathematics and Science Education
 MTHED.....Mathematics Education
 M E.....Mechanical Engineering
 MIL S.....Military Science
 M BIO.....Molecular Biology
 MUSIC.....Music
 N SCI.....Natural Science
 NAV S.....Naval Science
 NURS.....Nursing
 NUTR.....Nutrition
 OCEAN.....Oceanography
 PERS.....Persian
 PHIL.....Philosophy
 PHYS.....Physics
 POL S.....Political Science
 PORT.....Portuguese
 PSFA.....Professional Studies and Fine Arts
 PSY.....Psychology
 P A.....Public Administration
 P H.....Public Health
 RTM.....Recreation and Tourism Management
 R A.....Regulatory Affairs
 REL S.....Religious Studies
 RWS.....Rhetoric and Writing Studies
 RUSSN.....Russian
 SCI.....Science
 SWORK.....Social Work
 SOC.....Sociology
 SPAN.....Spanish
 SPED.....Special Education
 SLHS.....Speech, Language, and Hearing Sciences
 STAT.....Statistics
 SUSTN.....Sustainability
 TE.....Teacher Education
 TFM.....Television, Film and New Media
 THEA.....Theatre
 WMNST.....Women's Studies



Courses and Curricula



Accountancy

Refer to “Business Administration” in this section of the bulletin.

Administration, Rehabilitation and Postsecondary Education

Refer to “Education” in this section of the bulletin.

Aerospace Engineering

Refer to “Engineering” in this section of the bulletin.

Anthropology

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 448

TELEPHONE: 619-594-5527 / **FAX:** 619-594-1150

E-MAIL: anthro@sdsu.edu

WEBSITE: <http://anthropology.sdsu.edu>

Faculty

Elisa J. Sobo, Ph.D., Professor of Anthropology,
Chair of Department

Todd J. Braje, Ph.D., Professor of Anthropology

Matthew T. Lauer, Ph.D., Professor of Anthropology

Seth W. Mallios, Ph.D., Professor of Anthropology

Ramona L. Pérez, Ph.D., Professor of Anthropology

Erin P. Riley, Ph.D., Professor of Anthropology (Graduate Adviser)

Frederick J. Conway, Ph.D., Associate Professor of Anthropology,
Emeritus

Arion T. Mayes, Ph.D., Associate Professor of Anthropology

Erika Robb Larkins, Ph.D., Assistant Professor
of Anthropology and Sociology

Casey J. Roulette, Ph.D., Assistant Professor of Anthropology

Isaac I.T. Ullah, Ph.D., Assistant Professor of Anthropology

Scholarships

The department offers three competitive, internal scholarship programs, the Norton Allen Scholarship, the Al Sonek Biological Anthropology Scholarship, and the Pitt Warner Endowed Anthropology Scholarship. The department also hires a small number of graduate students for a variety of graduate assistant (GA) and instructional student assistant (ISA) positions. Applications and additional information can be found on the department website at <http://anthropology.sdsu.edu/>.

General Information

The department offers graduate study leading to the Master of Arts degree in anthropology. The Master of Arts degree in anthropology provides systematic training through two specializations; (1) general anthropology specialization, with a strong theoretical component, for students who anticipate additional work leading to the doctoral degree in anthropology, or direct placement in an academic setting; (2) an applied anthropology specialization primarily for those who plan to seek employment in the nonacademic sector. This specialization is concerned with the application of anthropological method and theory to practical problems in business, government, and other settings.

Research and special instructional facilities provided by the Department of Anthropology include laboratories for archaeology, biological anthropology/primatology, environmental anthropology, and sociocultural anthropology. Additional facilities available in the community include the Museum of Man, the San Diego Zoo, and various internship sites for applied research.

Students who graduate with the Master of Arts degree in anthropology in either the general or applied anthropology specialization will be prepared for a variety of opportunities, including teaching careers.

Admission to Graduate Study

To be considered for graduate admission at San Diego State University, applicants must follow the three step process outlined below. For more detailed information regarding the admissions process, visit <http://anthropology.sdsu.edu/graduate.html>.

Step 1: Complete the Cal State Apply application by the SDSU deadline (see <http://arweb.sdsu.edu/es/admissions/grad/index.html> for dates).

Applicants must submit the California State University application available at <http://www.calstate.edu/apply> along with the \$55 nonrefundable application fee. Cal State Apply will begin to accept applications October 1. Once applicants have submitted the Cal State Apply application, a RedID number will be assigned and e-mailed within 3-5 business days. The RedID number will allow applicants to track the status of their application through the SDSU WebPortal at <http://www.sdsu.edu/portal>.

Step 2: Submit official transcripts and test scores to Graduate Admissions by the SDSU priority cycle deadline (see <http://arweb.sdsu.edu/es/admissions/grad/index.html> for dates).

After applicants have submitted the Cal State Apply application and received their RedID number, applicants must send official transcripts and test scores to Graduate Admissions. Sending transcripts before submitting the Cal State Apply application will result in processing delays.

Applicants must provide the following:

1. Official transcripts (in sealed envelopes) issued within the last year, from all U.S. colleges and universities attended. Students who previously attended SDSU need only submit transcripts for coursework completed since last attendance. Hard copies of SDSU transcripts are not required;

Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified literal English translation. For country specific requirements, visit <http://anthropology.sdsu.edu/graduate.html>;

2. GRE scores sent directly from Educational Testing Services (ETS) using SDSU Institution Code 4682. University requires that all sections (verbal, quantitative, analytical writing) of the GRE be completed;
3. TOEFL scores are required of all applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English. A minimum score of 80 is required. Scores should be sent directly from ETS using SDSU Institution Code 4682.

The above listed materials should be sent to:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

For further questions regarding Steps 1 and 2, contact Graduate Admissions at 619-594-6336 or e-mail admissions@sdsu.edu. International applicants may contact the international recruitment office at 619-594-1847 or e-mail intladmission@sdsu.edu.

Step 3: Complete anthropology Master of Arts online application by the SDSU priority cycle deadline. For information regarding the admissions process, visit the department website at <http://anthropology.sdsu.edu>.

The anthropology Master of Arts application requires the following items:

1. Statement of purpose. The statement of purpose is a very important part of the application, as it allows the faculty to assess intellectual sophistication, writing skills, clarity of purpose, and potential for success in the Master of Arts program. The statement of purpose should be limited to two to three single-spaced pages and clearly articulate intended research interests, including geographical interests (if appropriate). If research plans are not yet fully developed, clarify what topics and issues in anthropology the applicant is most interested in pursuing and propose possible contexts in which to study them. Statements should not be an extended narrative about personal history, except as relevant to research plans. Elements that would make for a strong statement include, but are not limited to: the intellectual and/or applied importance of the area of interest; a discussion of preparedness to undertake graduate level study (e.g., coursework, field schools, previous research experience, etc.); the name of at least one SDSU anthropology faculty member who would be a suitable thesis adviser and an explanation of her/his selection; and, a discussion of the compatibility of interests with the SDSU anthropology program/faculty research areas;

2. Copies of transcripts from all colleges and universities attended (these do not need to be sent directly from the colleges - photocopies are acceptable);
3. Copies of GRE (if applicable, TOEFL) test scores;
4. Three letters of recommendation. Applicant must provide names and e-mail of three individuals who can write a letter of recommendation on the applicant's behalf, who know the applicant well, and can evaluate the applicant's ability to perform and succeed at the graduate level. Requests for letters of recommendation will be e-mailed to the recommenders via e-mail address provided by applicant;
5. Sample of written work representative of the applicant's research and writing skills;
6. Curriculum vitae or resume.

For further questions regarding Step 3, contact the Department of Anthropology at 619-594-5527, or e-mail anthro@mail.sdsu.edu.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Four of this bulletin. Except under special circumstances, prospective applicants must meet the following minimum admission requirements:

1. Hold an acceptable baccalaureate degree from an accredited institution or equivalent as determined by the Division of Graduate Affairs;
2. Have attained at least a 3.0 GPA on all work leading to the bachelor's degree and subsequent post-baccalaureate coursework;
3. Have been in good standing in the last institution attended; and
4. Have a combined verbal and quantitative GRE (Graduate Record Examination) score of at least 950 on the old test (prior to August 1, 2011) or 294 on the new test and a minimum of 4.0 on the analytic essay.

Applicants who meet the minimum admission requirements but who do not have a strong background in anthropology may be admitted conditionally. Conditionally admitted students will be required to complete specified courses in addition to the minimum 33 units required for the Master of Arts degree.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, the department requires for either the General Anthropology specialization or the Applied Anthropology specialization that the student must:

1. Complete all deficiency courses (needed only if admitted with conditional graduate standing);
2. Complete all required coursework (except ANTH 799);
3. Satisfy the foreign language requirement or demonstrate upper division competency in statistics, GIS, or computer programming language (with a grade point average of 2.5 or better) and submit a report for foreign language completion form (available on Graduate Affairs website at <http://gra.sdsu.edu/>) to the graduate adviser;
4. Maintain at least a 3.0 GPA in all other courses applied to the Master of Arts degree including any transfer credit;
5. Inform the graduate adviser to submit a program of study (POS);
6. Form a thesis committee;
7. Complete a thesis proposal and have it approved by the student's committee. Submit a thesis approval form (available on the department website at <http://anthropology.sdsu.edu>) to the graduate adviser;

8. Obtain human and/or animal subjects approval (if applicable);
9. Submit a signed Appointment to Thesis Committee form to the graduate program adviser.

Specific Requirements for the Master of Arts Degree

(Major Code: 22021) (SIMS Code: 110901)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the Master of Arts degree as described in Part Four of this bulletin, no grade below a B (3.0) is acceptable for coursework on a student's program of study (POS) and students must complete a graduate program of at least 33 units of graduate courses with a 3.0 GPA that include the required courses listed below for each specialization. No more than three units of Anthropology 798, Special Study, and/or three units of Anthropology 795, Internship, may be used toward satisfaction of the degree. Courses required to remove undergraduate deficiencies and those used to fulfill the language or statistics requirements are in addition to the minimum 33 units required for the Master of Arts degree in anthropology.

General Anthropology Specialization

(SIMS Code: 110940)

1. Anthropology 601, 602, 603, 604 (with no less than a grade of B). Only classified students may enroll in these courses;
2. One of the following methods courses: Anthropology 501, 505, 520, 531, 583 (Paradise Lost), Latin American Studies 601;
3. Anthropology 797 (3) Cr/NC/RP;
4. A minimum of 12 units of coursework numbered 500 or above from any department (with a maximum of nine units outside of the anthropology department) determined in consultation with the student's thesis adviser;
5. Anthropology 799A, Thesis (3) Cr/NC/RP.

Applied Anthropology Specialization

(SIMS Code: 110910)

1. Nine units selected from Anthropology 601, 602, 603, 604 (with no less than a grade of B). Only classified students may enroll in these courses;
2. Anthropology 605 (with no less than a grade of B);
3. One of the following methods courses: Anthropology 501, 505, 520, 531, 583 (Paradise Lost), Latin American Studies 601;
4. Anthropology 795, Internship in Anthropology (3-9) Cr/NC. Only classified students may enroll;
5. Anthropology 797, Research (3) Cr/NC/RP;
6. A minimum of nine units of coursework numbered 500 or above from any department determined in consultation with the student's thesis adviser;
7. Anthropology 799A, Thesis (3) Cr/NC/RP.

As a requirement for the Master of Arts degree, all graduate students must present their thesis research as an oral examination with all committee members present. Only Plan A, requiring the thesis, is permitted for the Master of Arts degree in anthropology.

Courses Acceptable for Master's Degree Program in Anthropology (ANTH)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

ANTH 501. Primate Behavioral Ecology (3)

Prerequisite: Anthropology 301.

Ecology and behavior of nonhuman primates to include history of primate ecological research, feeding ecology, predation, demography and dispersal, reproduction, conflict and cooperation, conservation as well as contemporary primatology.

ANTH 505. Human Osteology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 301.

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 303.

Socio-cultural ecology of disease, medical health beliefs and practices in cultural context, and complexities of health care delivery in pluralistic societies.

ANTH 510. Environmental and Ecological Anthropology (3)

Prerequisite: Anthropology 303.

Ecological thinking in anthropology with focus on relationships between human environmental and ecological systems in tribal, peasant, and industrial societies. Cultural aspects of how and why human societies have maintained or undermined their ecosystems.

ANTH 520. Ethnographic Field Methods (3)

Prerequisite: Anthropology 303.

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 529. Urban Anthropology (3)

Prerequisite: Anthropology 303.

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. Methods in Applied Anthropology (3)

Prerequisite: Anthropology 303.

Anthropological concepts and methodologies to solve human problems in both western and non-western societies through intervention, community development, impact assessment, and cultural communication.

ANTH 532. Anthropology of Development and Conservation (3)

Prerequisite: Anthropology 303.

Anthropological perspectives on design, implementation, and assessment of development projects and conservation initiatives in "Third World." Interlinkages between resource exploitation, underdevelopment, and local autonomy; and political and ethical dilemmas faced by anthropologists involved in projects.

ANTH 533. Race, Ethnicity, and Identity (3)

Prerequisite: Anthropology 303.

Theories and practices of race, ethnicity, and identity from a cross-cultural and anthropological perspective. History of race in US and other regions, focusing on how identities are constructed around concepts of difference.

ANTH 536. Gender and Human Sexuality (3)

Prerequisite: Anthropology 303.

Constructions of gender and sexuality from anthropological perspective. Social constructions of body, norms, deviance, and medicalization of sexuality.

ANTH 537. Anthropology of Childhood (3)

Prerequisite: Anthropology 303.

Childhood in diverse cultural settings; evolutionary, biosocial, and health-related aspects of childhood; social and cultural uses of idea of childhood; enculturation and children's relationship to material culture.

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 302.

Application of palynology, paleontology, and relevant technologies. Individual laboratory research project required.

ANTH 582. Regional Anthropology (3)

Prerequisite: Consent of instructor.

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: Consent of instructor.

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. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

ANTH 600. Seminar (3)

An intensive study in advanced anthropology. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ANTH 601. Seminar in Biological Anthropology (3)

Prerequisite: Classified graduate standing.

History, theory, and current research in biological anthropology. Key literature from core topical areas such as primatology, paleoanthropology, human biology, bioarchaeology, and skeletal biology.

ANTH 602. Seminar in Archaeology (3)

Prerequisite: Classified graduate standing.

History and theory in archaeological data collection, analysis, and interpretation.

ANTH 603. Seminar in Ethnology (3)

Prerequisite: Classified graduate standing.

History and theory in ethnology stressing the significant literature on such topics as cross-cultural comparison, structural-functional analysis and description, personality and culture, and socio-cultural change.

ANTH 604. Seminar in Linguistics (3)

Prerequisite: Classified graduate standing.

History and theory of linguistics stressing the significant literature on such topics as cultural cognition, descriptive linguistics, lexicostatistics, and transformational analysis.



ANTH 605. Seminar in Applied Anthropology (3)

Prerequisite: Classified graduate standing.

Use of anthropological theory and methods in solving contemporary social problems. Contemporary ethnographic examples from differing regions of the world reviewed to understand complexity and locally specific variables that must be addressed in proposing interventions and solutions.

ANTH 621. Seminar in Topical Anthropology (3)

Prerequisites: Twelve upper division units in anthropology.

Study of a major subdiscipline such as political anthropology, economic anthropology, social anthropology, psychological anthropology, cultural ecology, applied anthropology, race and variation, or environmental archaeology. Maximum credit six units applicable to a master's degree. May be repeated with new content. See *Class Schedule* for specific content.

ANTH 795. Internship in Anthropology (3-9) Cr/NC

Prerequisites: Classified graduate standing and consent of instructor.

Students assigned to various government and private agencies in which anthropological theory can be applied. Supervision shared by department supervisor and on-the-job supervisor. Maximum credit nine units; three units applicable to a master's degree.

ANTH 797. Research (3) Cr/NC/RP

Prerequisite: Classified graduate standing.

Independent investigation in the general field of the thesis.

ANTH 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Classified graduate standing.

Individual study directed toward the preparation of a paper on a specific problem. May be repeated with variable content, with a maximum credit of three units applicable to a master's degree.

ANTH 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ANTH 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis, 799A, with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

Art

IN THE SCHOOL OF ART AND DESIGN

IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Art 505

TELEPHONE: 619-594-6511 / **FAX:** 619-594-1217

E-MAIL: artinfo@sdsu.edu

WEBSITE: <http://art.sdsu.edu>

Faculty

Kotaro Nakamura, M.A., Professor of Art and Design,
Director of School

Tina Marie Yapelli, M.A., Professor of Art and Design

Patricia Cue Couttolenc, M.F.A., Associate Professor
of Art and Design

Matthew G. Hebert, M.F.A., Associate Professor of Art and Design

Richard C. Keely, M.F.A., Associate Professor of Art and Design

Arzu Ozkal, M.F.A., Associate Professor of Art and Design

Sandra Lee Sherman, M.F.A., Associate Professor
of Art and Design

Mark J. Siprut, M.F.A., Associate Professor of Art and Design

Kim Stringfellow, M.F.A., Associate Professor of Art and Design

Eva M. Struble, M.F.A., Associate Professor of Art and Design

Carlos A. Castro Arias, M.F.A., Assistant Professor
of Art and Design

Bridget E. Gilman, Ph.D., Assistant Professor of Art and Design

Matthew J. Higgins, M.Sc., Assistant Professor of Art and Design

Adam J. Manley, M.F.A., Assistant Professor of Art and Design

Kerianne M. Quick, M.F.A., Assistant Professor of Art and Design

David W. Hewitt, M.F.A., Lecturer in Art and Design

(Graduate Adviser)

Assistantships and Tuition Waivers

Graduate assistantship and teaching associate positions in art are available to a limited number of qualified students. Tuition waivers and scholarships for out-of-state and international students are also available on a limited basis. Applicants should contact the graduate adviser for additional information.

General Information

The School of Art and Design offers graduate study leading to the Master of Fine Arts degree in art and the Master of Arts degree in art. The objectives of the graduate program in all areas of specialization are to provide the essential education, technical training and creative experience necessary for professional activity and college-level teaching in the visual arts.

The Master of Arts degree is a 30-unit graduate program requiring one to two years to complete. The M.A. concentration in studio arts is designed to prepare students for proficient and successful practice as professional artists and is offered in the following areas: ceramics, furniture design and woodworking, graphic design, interior design, jewelry and metalworking, multimedia, painting and printmaking, and sculpture.

The Master of Fine Arts degree requires an additional 30 units in the area of specialization and professional seminars, with the expectation that the student will achieve a higher level of excellence and distinction in the chosen area of specialization. The M.F.A. degree requires 60 units and can be completed in three years. The degree is offered in ceramics, furniture design and woodworking, graphic design, interior design, jewelry and metalworking, multimedia, painting and printmaking, and sculpture.

The School of Art and Design has expansive facilities offering the student excellent studio space and state-of-the-art equipment. In addition, the Museum of Contemporary Art San Diego, San Diego Museum of Art, Stuart Collection, and the Timken Museum of Art offer a range of contemporary and global historic art, as well as specialized libraries for research. All are convenient to public or personal transportation. There are also numerous community college galleries and commercial galleries with a wide variety of offerings.

Admission to Graduate Study

Applicants should submit the California State University application (available at <http://www.calstate.edu/apply>) along with the \$55 nonrefundable application fee electronically by December 15.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Art and Design by January 12.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7416

1. Transcripts: Send official transcripts (in sealed envelopes) issued within the last year from all U.S. postsecondary institutions attended;
 - Do not send transcripts before submitting the Cal State Apply application as this may result in processing delays.
 - If you previously attended SDSU, you need only submit transcripts for work completed since last attendance. If you are a current SDSU student, you are not required to submit an SDSU transcript.
2. International documents: Students with international coursework must have the institution send one official language record of all academic coursework and proof of degree. For each document, applicants must also send a certified literal English translation which can come directly from the institution or from a professional certified translator. The translation must contain all information shown on the original language documents;
3. GRE scores: for (a) all Master of Arts (M.A.) degree applicants, (b) Master of Fine Arts (M.F.A.) degree applicants whose bachelor's degree grade point average is below 3.0; and (c) all applicants whose bachelor's degree was completed outside the U.S. (<http://www.ets.org> SDSU institution code 4682);
4. English Language Proficiency (for international students only): All graduate and post-baccalaureate 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 applicants who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must submit official TOEFL (<http://www.ets.org>) SDSU institution code 4682) or IELTS (<http://www.ielts.org>) results.

Master of Fine Arts Degree in Art

Master of Arts (Studio Arts) Degree in Art

The following admissions materials must be submitted electronically by the January 12 deadline.

1. School of Art and Design application;
2. Statement of purpose addressing your professional goals and reasons for selecting the School of Art and Design at SDSU for your pursuit of these goals;
3. Artist statement that describes the nature and content of the work shown in the portfolio;
4. Digital portfolio of your work. Digital images should not exceed 1024 x 768 pixels, and should be presented either as a collection of JPEG files in a folder along with a caption list, or as captioned images contained within a single PDF or with PowerPoint;
5. Current curriculum vitae or resume;

- Two letters of recommendation from art instructors (or others) who are able to comment on your artistic potential in the area of specialization. Letters can be sent separately or included with your application in sealed and signed envelopes;
- One copy of unofficial or official transcripts for all college- and university-level institutions attended.

For information regarding the admissions process, visit the school website at <http://art.sdsu.edu>.

Master of Arts (Art History) Degree in Art

The following admissions materials must be submitted electronically by the January 12 deadline.

- School of Art and Design application;
- Statement of purpose addressing your professional goals and reasons for selecting the School of Art and Design at SDSU for your pursuit of these goals, what you plan to accomplish at SDSU (in which areas do you plan to specialize), and what your long range career goals are;
- A copy (it will not be returned) of your best term paper or seminar report, or reprint of a published article, accompanied by a statement explaining how you came to your topic, your method of research, and the facilities available;
- Three letters of recommendation from instructors who can assess your academic performance (you may include one museum reference). Letters can be sent separately or included with your application in sealed and signed envelopes.

For information regarding the admissions process, visit the school's website at <http://art.sdsu.edu>.

Master of Fine Arts Degree in Art

Admission to the Degree Curriculum

Admission to the Master of Fine Arts degree program is limited to the fall semester. Applications and portfolios for the annual graduate review must be submitted to the graduate adviser by January 12.

All applicants must satisfy the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In general, applicants must have completed a bachelor's degree in studio art or the equivalent from an accredited institution, including 12 units of art history. A grade point average of 3.25 or better in upper division art courses is required.

Applicants must also be able to show that they are adequately advanced to carry out projects that are up to graduate level standards. This requirement will be measured by a review of a digital portfolio or recent work by the graduate faculty in the area of focus.

Advancement to Candidacy

In addition to meeting the requirements for advancement to candidacy as described in Part Four of this bulletin, all students must have (1) completed a minimum of 30 units of program coursework with a minimum grade point average of 3.0 [B]; and (2) been reviewed by a selected group of graduate faculty and received approval of an acceptable body of graduate work completed since classified standing fulfilling the requirements of the area of emphasis.

Specific Requirements for the Master of Fine Arts Degree

(Major Code: 10022) (SIMS Code: 660503)

Candidates for the M.F.A., in addition to meeting the requirements for classified graduate standing, must complete a 60-unit graduate program which includes a minimum of 45 units at the 600- and 700-level. Art 694, 760, 791, and 792 are required. Normally, a student will focus on one of the studio art emphasis areas (ceramics, furniture design and woodworking, graphic design, interior design jewelry and metalworking, multimedia painting

and printmaking, and sculpture). Six units must be included in art history, art criticism, and aesthetics courses. Nine units must be included on the program from studio electives outside the area of emphasis or electives in other departments. Art 799A, Thesis must be included on the program. With approval of the director and graduate adviser, a student may focus on a program of study combining two studio art fields. In addition, there will be an oral examination of each candidate by the graduate faculty of the School of Art and Design. This examination will occur at the time of the candidate's master's exhibition, and will encompass an in-depth discussion of the candidate's thesis project.

No more than 15 units of graduate work may be transferred from another institution. Requests for more than six units must be approved by a committee of representatives from the area of emphasis. Applicants holding an M.A. degree in studio art from an accredited institution may transfer up to 30 units upon review and recommendation of the faculty in the area of emphasis, and approval of the graduate adviser of the School of Art and Design. Candidates must be prepared to spend at least two semesters (24 units) in residence as full-time students. Coursework taken as a graduate student to fulfill undergraduate deficiencies may not be used to satisfy any unit requirement for the M.F.A. degree program. A 3.0 grade point average must be maintained at all times. Continuation in the program will be determined by a review of each candidate by the graduate faculty in the emphasis area. This review will be held upon completion of 30 units in the M.F.A. program, or at any time upon request of the graduate adviser.

Thesis and Projects in Art

The project required for the Master of Fine Arts degree is an original body of creative artwork accompanied by a written report. Written reports accepted in satisfaction of a requirement for the master's degree are cataloged and maintained in the SDSU library. A softbound copy of the written report accompanying a master's thesis exhibition must be provided by the candidate and will be retained in the School of Art and Design's graduate advising office.

Master of Arts Degree in Art

Admission to the Degree Curriculum

Studio Arts

Admission to the Master of Arts degree program in studio arts is limited to the fall semester. Applications and portfolios for the annual graduate review must be submitted to the graduate adviser by January 12.

All applicants must satisfy the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In general, applicants must have completed a bachelor's degree in studio art or the equivalent from an accredited institution with a minimum of 24 upper division units, including two semesters of the history of art, before they will be permitted to enter the graduate program. Applicants must also be able to show that they are adequately advanced to carry out projects that are up to graduate level standards. This requirement will be measured by a review of a digital portfolio of recent work by the graduate faculty in the area of concentration. The range should be great enough to give the faculty a knowledge of the candidate's strengths and weaknesses. If it is determined that the applicant is capable of doing graduate level work, he/she may be permitted to begin such work even though he/she has not completed an appropriate undergraduate degree in art.

Art

Art History

No new students are being admitted to this program until further notice.

In addition to meeting the requirements for admission to the university, students wishing to be admitted to the art history graduate program with a classified graduate standing must complete the equivalent of the graduation requirements as specified in the current General Catalog (a minimum of 39 units of art history to include Art 593).

Students who do not meet the requirements for admission to the graduate program in art history but meet the requirements for graduate admission to the university, may, at the discretion of the art history faculty, be accepted with conditional standing.

Advancement to Candidacy

Studio Arts

In addition to meeting the requirements for advancement to candidacy as described in Part Four of this bulletin, all students must have: (1) completed a minimum of 12 units of program coursework with a minimum grade point of 3.0 (B); and (2) been reviewed by the tenured and tenure-track faculty of the emphasis area and received approval of an acceptable body of graduate work completed since classified standing fulfilling the requirements of the area of concentration.

Art History

Classified graduates should contact the graduate adviser to discuss their individual graduate programs before the third week of their first semester.

Before advancement to candidacy, classified graduate students working for the Master of Arts degree with a concentration in art history must pass a qualifying examination in art history. Classified graduate students must have completed three semesters of college level French or German or, on the advice of the art history faculty, the language necessary for thesis research. Alternately, with the consent of the art history faculty, students may demonstrate a reading knowledge of the appropriate language by passing the Graduate School Foreign Language Examination (the French MLA examination is given by the Testing Services Office during the beginning of each semester; contact the School of Art and Design for permission to take the examination). The language requirement must be met before the add/drop date of the student's first semester as a classified graduate student, or the student must enroll for appropriate language courses.

Specific Requirements for the Master of Arts Degree

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, students must complete a graduate program of a minimum of 30 units which includes at least 24 units in art from courses listed below as acceptable for master's degree programs in art, of which at least 16 units must be in 600- and 700-numbered courses.

Studio Arts Concentration

(Major Code: 10021) (SIMS Code: 660589)

Those electing studio arts must complete a minimum of 18 units in the area of specialization. Art 694, 760, and 799A are required. Not more than a total of six units in Art 798 will be accepted. A creative project accompanied by a written report is required as fulfillment of Art 799A. In conjunction with this project, each candidate for the degree must present an exhibition of representative graduate work.

Art History Concentration

(Major Code: 10031) (SIMS Code: 660517)

No new students are being admitted to this program until further notice.

Those electing art history must complete at least 15 units from the 600- and 700-numbered courses to include Art 799A, selected in consultation with the art history adviser. Students may select up to 15 units of 500-level courses in art, 12 units of which

must be in art history and approved by the graduate adviser. The additional three units must be selected in consultation with the graduate adviser, to include Art 578 and 593 if these courses are not already completed. A written thesis is required as fulfillment of Art 799A. Master's candidates in art history will also be required to give an open lecture on their thesis subject, to be scheduled with the approval of the thesis chair.

Thesis and Projects in Art

The project required for the Master of Arts degree with a concentration in studio arts and the Master of Fine Arts degree is an original body of creative artwork accompanied by a written report. Written reports accepted in satisfaction of a requirement for the master's degree are cataloged and maintained in the SDSU library. A softbound copy of the report accompanying a master's thesis exhibition must be provided by the candidate and will be retained in the School of Art and Design graduate advising office.

Courses Acceptable for Master's Degree Programs in Art (ART)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

ART 500. Advanced Drawing (3)

Six hours.

Prerequisite: Art 102, 203, 204, 210, 343, or 406.

Drawing emphasizing qualitative aspect of visual subject matter.

Maximum credit six units.

ART 502. Inter-Media (1-3)

Two hours for each unit of credit.

Prerequisites: Upper division standing and consent of instructor.

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 III (3)

Six hours.

Prerequisites: Art 204 and 403.

Drawing and painting from nude and costumed models. Maximum credit six units.

ART 504. Painting III (3)

Six hours.

Prerequisite: Art 404.

Approaches to contemporary concepts in painting. Maximum credit six units.

ART 506. Contemporary Issues (3)

Prerequisite: Upper division standing.

Art and design issues relevant to contemporary global society. Sources of inspiration in art and design practice and topical issues examined. Field trips.

ART 511. Advanced Lithography (3)

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.

ART 516. Sculpture III (3)

Six hours.

Prerequisite: Art 416.

Advanced level investigations into sculptural ideas, processes, and materials. Maximum credit six units.

ART 517. Figurative Sculpture II (3)

Six hours.

Prerequisite: Art 216.

Figurative study with emphasis on individual exploration. Maximum credit six units.

ART 523. Furniture Design and Woodworking III (3)

Six hours.

Prerequisites: 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.

ART 524. Digital Fabrication for Art and Design (3)

Six hours.

Prerequisite: A 300- or 400-level art or design course.

Design, visualization, and fabrication processes utilizing modeling and machining software. Basic techniques in computer-aided design (CAD) and computer-aided manufacturing (CAM). Small-scale production techniques and outsourcing for artists and designers. Maximum credit six units.

ART 525. Ceramics III (3)

Six hours.

Prerequisite: Art 425.

Study of ceramic design through creative projects of clay forms. Maximum credit six units.

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.

ART 531. Jewelry and Metals IIIA-Jewelry (3)

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.

ART 532. Jewelry and Metals IIIB-Metalsmithing (3)

Six hours.

Prerequisite: Art 432.

Advanced problems involving metal processes to increase technical competence while exploring personal design statements. Maximum credit six units.

ART 535. Fiber Construction II (3)

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. Fiber Surface Design II (3)

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 Projects (3)

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 440, or Art 340 and 407.

Visual and creative expression using photographic media, including traditional and digital processes. Emphasis on conceptual project development and portfolio. Maximum credit six units with consent of instructor.

ART 541. Graphic Design IV (3)

Six hours.

Prerequisites: Grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454. **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. **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 with consent of instructor.

ART 543. Illustration III (3)

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 443.

Strategy and problem solving of professional illustration as related to art and design; individual conceptual and contextual exploration. Maximum credit six units.

ART 544. Emerging Technologies in Multimedia (3)

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 344, or 348, or 440, or 448, or 540.

Advanced creative 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)

Six hours.

Prerequisites: Grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, 541, and portfolio review. **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.

ART 546. Advanced Book Arts (3)

Prerequisite: Art 446.

Design and creation of limited edition artist books and independent projects made with mixed media and hand printing techniques such as letterpress, intaglio, woodcut, lithography, photography, and experimental media. Maximum credit six units.

ART 547. Environmental Theory (3)

Prerequisite: Art 247 or 347.

Survey of alternative solutions to the problem of design of the physical environment.

ART 552. Work Environment Interior Design (3)

Six hours.

Prerequisite: Art 453.

Projects in architectural interiors involving the use and perception of enclosed spaces. Space planning systems analysis. Maximum credit six units.

ART 553. Commercial Interior Design (3)

Six hours.

Prerequisite: Art 552.

Projects in interiors involving space planning analysis, specification writing, materials selection and furnishing design appropriate to commercial needs. Maximum credit six units.

ART 557. Nineteenth Century European Art (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)

Prerequisite: Art 259.

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

ART 564. Art of China (3)

Prerequisite: Art 258 or 259 or 263.

History of Chinese art from prehistoric times through the Ching Dynasty.

ART 565. Art of Japan (3)

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)

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 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 571B. Contemporary Art of Latin America (3)

Prerequisites: Art 258 and 259.

Work created by leading contemporary Latin American artists from 1960 to present. Field trips required.

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)

Prerequisite: At least one course selected from Art 557, 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)

Six hours.

Prerequisites: Fifteen units of art.

Fundamental art elements and principles applied to the theories and techniques of gallery exhibition design.

ART 593. History and Methodology of Art History (3)

Prerequisites: 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

ART 600. Drawing (3)

Six hours.

Prerequisite: Art 500.

Concepts and approaches to drawing. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 604. Painting (3)

Six hours.

Prerequisite: Art 504.

Issues and concepts relating to contemporary painting. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 609. Printmaking (1-3)

Two hours for each unit of credit.

Advanced creative work in selected printmaking media based upon the analysis of the history and philosophies of printmaking from its inception through contemporary concepts. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 616. Sculpture (3)

Six hours.

Prerequisite: Art 516.

Aesthetic organization of selected subject matter in the media of sculpture. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 623. Advanced Furniture Design (3)

Six hours.

Prerequisite: Art 523.

Problems in the design and construction of furniture. Projects determined by the individual students in conference with the instructor. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 625. Crafts (1-3)

Two hours for each unit of credit.

Prerequisite: Six units completed in upper division courses in sculpture or ceramics or printmaking or a combination of these courses.

Advanced creative work in selected craft media. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 627. Advanced Clay and Glaze Technology in Ceramic Design (3)

Six hours.

Prerequisite: Art 525 or 526.

Experimentation with use of ceramic material and techniques as an integral part of design process. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 631. Jewelry and Metalwork (3)

Six Hours.

Prerequisite: Art 531 or 532.

Problems in design and execution of works in precious metals. Projects will be determined by individual student in conference with the instructor. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 641. Graphic Communication (1-3)

Two hours for each unit of credit.

Prerequisite: Art 541.

Advanced individual study in graphic design. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 642. Typography (3)

Six hours.

Prerequisite: Art 542.

Advanced creative and scholarly research in typography for visual expression and communication; typographic experimentation based on theory, strategy, and problem solving. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 644. Multimedia (3)

Six hours.

Prerequisite: Art 544.

Creative applications of interactive and time-based visual expression using contemporary multimedia formats. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 650. Creative Environmental Design (1-3)

Prerequisite: Six upper division units in interior design, architecture or city planning.

Creative work in interior design, architecture and civic design. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 694. Seminar in Principles of Design in Space Arts (3)

Prerequisite: Art 559.

Activity of creative expression and aesthetic appreciation in area of visual experience. Aesthetic analysis of original works of art. Maximum credit six units applicable to the M.A. degree.

ART 696. Advanced Topics in Art (1-3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of art and art history. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ART 700. Studio Art Experience (3)

Six hours.

Independent research in specified areas, which may require the presentation of a paper with its oral defense. Each letter designation may be taken for a maximum six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

- A. Studio Art in Painting
- B. Studio Art in Sculpture
- C. Studio Art in Printmaking
- D. Studio Art in Ceramics
- F. Studio Art in Graphic Design
- G. Studio Art in Environmental/Interior Design
- I. Studio Art in Jewelry/Metals
- J. Studio Art in Furniture

ART 716. Individual Research Problems in Sculpture (3)

Six hours.

Prerequisite: Art 616 (six units).

Graduate research problems including independent research in sculpture. Projects will be determined by the individual student in conference with the instructor. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 760. Seminar in Twentieth Century Art (3)

Prerequisite: Art 559.

Visual arts and art criticism since 1900.

ART 791. Professional Practice (3) Cr/NC

Six hours.

Reading and discussion about subjects of direct concern to the professional artist. Open only to classified graduate students in studio art. This is an art forum for the practicing artist.

ART 792. Research in Professional Problems (3)

Methodologies pertinent to arts education in specific media. Open only to classified graduate students.

ART 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of the staff; to be arranged with department chair and the instructor.

Individual study. Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree in art.

ART 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for a master's degree.

ART 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

Asian Studies

IN THE CENTER FOR ASIAN AND PACIFIC STUDIES
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 473
TELEPHONE: 619-594-0931 / **FAX:** 619-594-0257
E-MAIL: mbolthou@sdsu.edu
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Director of Program: Sandra A. Wawrytko, Ph.D.

Faculty Committee for Asian and Pacific Studies

Li An, Ph.D., Professor of Geography
Kathryn J. Edgerton-Tarpley, Ph.D., Professor of History
Huma Ahmed Ghosh, Ph.D., Professor of Women's Studies
Lei Guang, Ph.D., Professor of Political Science
Yoshiko Higurashi, Ph.D., Professor of Japanese
Valerie O. Pang, Ph.D., Professor of Teacher Education
Erin P. Riley, Ph.D., Professor of Anthropology
Betty T.R. Samraj, Ph.D., Professor of Linguistics
Sthaneshwar Timalisina, Ph.D., Professor of Religious Studies
Ming-Hsiang Tsou, Ph.D., Professor of Geography
Latha Varadarajan, Ph.D., Professor of Political Science
Sandra A. Wawrytko, Ph.D., Professor of Philosophy
Ruey-Juan Regina Wu, Ph.D., Professor of Linguistics and Asian/
Middle Eastern Languages
Elena S. H. Yu, Ph.D., Professor of Public Health
Zheng-Sheng Zhang, Ph.D., Professor of Chinese
Anh Nhuoc Hua, Ph.D., Associate Professor of Women's Studies
Ryu Kitajima, Ph.D., Associate Professor of Japanese
Yawen Li, Ph.D., Associate Professor of Social Work
Mei Zhong, Ph.D., Associate Professor of Journalism and
Media Studies

General Information

No new students are being admitted to this program. For further information, contact the Center for Asian and Pacific Studies.

The Master of Arts degree in Asian studies is an interdisciplinary degree offered by designated faculty members in the Departments of Anthropology, Art, Business Administration, Classics and Humanities, Economics, Education, English and Comparative Literature, Geography, History, Linguistics and Asian/Middle Eastern Languages, Philosophy, Political Science, Religious Studies, and Sociology. It is administered by the Center for Asian and Pacific Studies through a graduate committee consisting of the director, the graduate adviser, and representatives from the several departments.

The program is designed to offer systematic advanced training (a) for those planning to enter educational, business, government, or community service involving Asian and Pacific studies; (b) for those in a specific academic discipline who have regional interest in Asian and Pacific studies and wish to promote more effective understanding of the cultures, societies, peoples, and social forces at work in the Asian and Pacific world; and (c) for those who plan to pursue further graduate study in Asian and Pacific studies beyond the Master of Arts degree.

Admission to Graduate Study

In addition to meeting the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, the student must present a Bachelor of Arts degree, as approved by the graduate committee of the Center for Asian and Pacific Studies. A student whose preparation is deemed inadequate by the graduate committee will be required to complete specific courses in addition to the minimum of 30 units required for the degree.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Center for Asian and Pacific Studies.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all post-secondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Center for Asian and Pacific Studies

The following materials should be mailed or delivered to:

Center for Asian and Pacific Studies
(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-6042

1. Letters of reference (minimum 3);
2. Personal statement;
3. Writing sample of recent academic work.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, all students must demonstrate a reading knowledge, at least at the intermediate level, of a relevant foreign language approved by the graduate adviser of the Center for Asian and Pacific Studies.

Specific Requirements for the Master of Arts Degree

(Major Code: 03011) (SIMS Code: 111101)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the Master of Arts degree, as described in Part Four of this bulletin, the student must complete a minimum of 30 units from courses acceptable for master's degree programs, including Asian Studies 799A. The remaining 27 units to be selected, with departmental approval, from the list of approved courses in Part Five of this bulletin. In addition, any other Asian-content courses may be applied with approval of the graduate adviser.

The total program may not include more than 15 units in 500-level courses.

Only Plan A, requiring the thesis, is offered for the Master of Arts degree in Asian studies. A final oral examination on the general field of the thesis must be passed as a requirement for the degree.

All programs will be approved by the graduate committee of Center for Asian and Pacific Studies.

Courses Acceptable for Master's Degree Program in Asian Studies (ASIAN)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Anthropology Course (ANTH)		Units
ANTH 582	Regional Anthropology*	3
Economics Courses (ECON)		
ECON 561	International Trade	3
ECON 592	International Monetary Theory and Policy	3
Geography Courses (GEOG)		
GEOG 554	World Cities: Comparative Approaches to Urbanization	3
GEOG 596	Advanced Topics in Geography*	1-3
History Courses (HIST)		
HIST 566	Chinese Civilization: The Great Traditions	3
HIST 567	China in Revolution	3
HIST 570	Japan in the Modern World	3
HIST 596	Selected Studies in History*	1-4
Philosophy Courses (PHIL)		
PHIL 514	Philosophy of Art*	3
PHIL 516	Non-Western Aesthetics*	3
PHIL 565	Asian Philosophies	3
PHIL 575	A Major Philosopher*	3
Political Science Course (POL S)		
POL S 575	International Relations of the Pacific Rim	3
Religious Studies Courses (REL S)		
REL S 581	Major Theme*	3
REL S 583	Major Tradition*	3

* Acceptable when of relevant content.

GRADUATE COURSES

ASIAN 797. Research (1-3) Cr/NC/RP

Research in one of the aspects of Asia Pacific studies. Maximum credit six units applicable to a master's degree.

ASIAN 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ASIAN 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Thesis 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

Anthropology Course (ANTH)		Units
ANTH 600	Seminar*	3
Economics Course (ECON)		
ECON 750	Seminar in History of Economic Thought*	3
Finance Course (FIN)		
FIN 654	Seminar in International Business Finance*	3
Geography Courses (GEOG)		
GEOG 701	Seminar in Development of Geographic Thought*	3
GEOG 740	Seminar in Human Geography*	3
History Courses (HIST)		
HIST 601	Seminar in Historical Methods	3
HIST 650	Directed Readings in Asian History	3
Linguistics Course (LING)		
LING 795	Seminar in Linguistics*	3
Management Course (MGT)		
MGT 723	Seminar in International Strategic Management*	3
Marketing Course (MKTG)		
MKTG 769	Seminar in International Marketing*	3
Philosophy Course (PHIL)		
PHIL 696	Seminar in Selected Topics*	3
Political Science Courses (POL S)		
POL S 655	Seminar in General Comparative Political Systems*	3
POL S 658	Seminar in Post-Communist Political Systems*	3
POL S 661	Seminar in the Political Systems of the Developing Nations*	3
POL S 675	Seminar in International Relations*	3

All 797 (Research) and 798 (Special Study) courses in named departments, when relevant, are also applicable upon approval by the graduate committee.

* Acceptable when of relevant content.

Astronomy

IN THE COLLEGE OF SCIENCES

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Faculty

Eric L. Sandquist, Ph.D., Professor of Astronomy,
Chair of Department

Jerome A. Orosz, Ph.D., Professor of Astronomy (Graduate Adviser)

Allen W. Shafter, Ph.D., Professor of Astronomy

William F. Welsh, Ph.D., Professor of Astronomy

Douglas C. Leonard, Ph.D., Associate Professor of Astronomy

Robert Quimby, Ph.D., Associate Professor of Astronomy

Kate Rubin, Ph.D., Assistant Professor of Astronomy

Associateships

Graduate teaching associateships in astronomy are available to a few qualified students. A limited number of graduate research assistantships are also available from the department or through faculty with funded research projects. Application for teaching associate or graduate research positions is done as part of the student's application for Admission to Graduate Study.

General Information

The Department of Astronomy offers graduate study leading to the Master of Science degree in astronomy. The degree is designed to prepare students either for further graduate work leading to the doctorate, or for a professional career in teaching or in industry.

San Diego State University operates the Mount Laguna Observatory, which is located 45 miles east of the campus at an elevation of 6,100 feet. The observatory houses three research telescopes: the new 1.25-m Phillips Claud reflector, a 1.0-m telescope, and an "Evryscope" that images the entire sky repeatedly throughout the night. Each of these is available for faculty and student research. Instrumentation for these telescopes includes both optical and near-IR cameras, as well as optical spectrographs. A dormitory is available to house visiting astronomers and there is also a shop-laboratory building on site. The observatory also houses the 0.5-m Buller telescope, which is featured in our education and public outreach programs connected to the neighboring Awona Harrington Visitor Center.

Campus facilities include a fixed 12-inch reflecting telescope, ten portable 8-inch Meade LX200 reflectors, and 20 smaller assorted portable reflecting telescopes. Two CCD cameras are also available. A Spitz AP3 planetarium is used for both student instruction and public outreach programs. The central campus library has a very extensive collection of astronomical texts and journals. In addition, the Special Collections section contains the world-renowned Zinner Collection of rare and historically important astronomical texts. The department also maintains a resource room of astronomical catalogs, charts, and selected reference texts.

Some of the research interests in the department include the structure and evolution of stars, eclipsing and interacting binary stars, the stellar content of nearby galaxies (through observations of novae and low-mass x-ray binaries), exoplanets, the formation of galaxies, gas flows, and supernovae. Graduate students are extensively involved in many of these research programs. Students often make use of observatory facilities in support of their thesis research.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In addition, students must have an overall grade point average of at least 2.85 in the last 60 units of their undergraduate work and must have preparation in astronomy and/or related sciences substantially equivalent to that required for the bachelor's degree in astronomy at San Diego State University.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Astronomy.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Astronomy

The following materials should be mailed or delivered to:

Department of Astronomy
(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1221

1. Letters of reference (two or three);
2. Personal statement;
3. Application for teaching associate position or graduate assistantship (if desired).

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as specified in Part Four of this bulletin. If the student's undergraduate preparation is deficient, he/she will be required to take courses for the removal of the deficiency. These courses are in addition to the minimum of 30 units for the master's degree.

Specific Requirements for the Master of Science Degree

(Major Code: 1911) (SIMS Code: 770501)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must also meet the following departmental requirements in a 30-unit program:

1. Complete the 12-unit core course curriculum (Astronomy 630, 650, 660, 680).
2. Complete at least 15 additional units of 500-, 600-, 700-level in astronomy graduate level courses or approved 500-level courses in astronomy or related fields as approved by departmental graduate adviser; not to exceed 12 units of 500-level courses if pursuing Plan B.
3. Plan A: Astronomy 799A, Thesis (3) Cr/NC/RP, and pass a final oral examination on the thesis. The Plan A option requires the consent of the astronomy graduate adviser.

OR

- Plan B: Pass a final comprehensive examination covering the astronomy core curriculum and complete three additional units of graduate level or approved 500-level courses in astronomy or related fields with approval of department graduate adviser.
4. Facility with a scientific computing language is required.

Courses Acceptable for Master's Degree Program in Astronomy (ASTR)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

ASTR 510. Exoplanets (3)

Prerequisites: Astronomy 350 and 440, or Physics 350 and 354 with minimum grade of B-, and consent of instructor.

Extrasolar planet detection; mass and radius determination; transits and eclipses; orbital dynamics and transit timing variations; internal and atmospheric characteristics; the exoplanet population and formation scenarios.

ASTR 596. Advanced Topics in Astronomy (2-3)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

ASTR 610. Binary Stars (3)

Prerequisite: Astronomy 450.

Visual, spectroscopic, and eclipsing binary stars. Review of observational techniques. Methods of orbital analysis with applications emphasizing determination of fundamental stellar properties, such as mass, radius, temperature, and luminosity. Implications for stellar evolution.

ASTR 620. Galactic Structure (3)

Prerequisite: Astronomy 450.

Survey of basic observational data for determining structure of Milky Way Galaxy. Includes luminosity functions, stellar distributions, solar motion, stellar populations, kinematics and dynamics of general and peculiar stellar motions.

ASTR 630. Stellar Atmospheres and Interiors (3)

Prerequisites: Astronomy 440 and Mathematics 342A.

Gas thermodynamics and equations of state. Production of stellar continuum radiation and spectral lines. Theories of radiative and convective energy transport. Interior structure and evolution of stars.

ASTR 650. Galactic Structure and Evolution (3)

Prerequisite: Astronomy 680.

Stellar and gaseous structures of the Milky Way and external galaxies. Properties to include chemical evolution, color distributions, luminosity functions, mass-to-light ratios, scaling relations, and surface brightness profiles. Dark matter halos, gravitational collapse models, and hierarchical structure formation. Contents and physical state of interstellar and circumgalactic media.

ASTR 660. Galaxies and Cosmology (3)

Prerequisite: Astronomy 450.

Morphology, photometric, and spectroscopic properties, dynamics, and evolution of normal galaxies. Current interpretations of peculiar galaxies and QSO's. The extragalactic distance scale. Observational cosmology.

ASTR 680. Astronomical Techniques (3)

Prerequisites: Astronomy 350 and 450.

Basic methods of data acquisition and analysis. Emphasis is given to CCD direct imaging, spectroscopy, and photometry. Direct experience with telescopes and instruments at Mount Laguna Observatory, as well as with the department computing and image processing facility.

ASTR 797. Research (1-3) Cr/NC/RP

Prerequisite: Classified graduate standing.

Research in one of the fields of astronomy. Maximum credit six units applicable to a master's degree.

ASTR 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

ASTR 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ASTR 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

Audiology

IN THE SCHOOL OF SPEECH, LANGUAGE, AND HEARING SCIENCES
IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Speech, Language, and Hearing 221
TELEPHONE: 619-594-7746 / **FAX:** 619-594-7109
WEBSITE: <http://slhs.sdsu.edu/programs/aud>

Director of School: Tracy E. Love-Geffen, Ph.D.

Faculty

The following faculty members of the cooperating institutions participate in the Au.D. program. These faculty teach courses, provide clinic instruction, provide research experiences, or are available as members of joint doctoral committees and advisers for student doctoral projects.

San Diego State University:

Carol L. Mackersie, Ph.D., Professor of Speech, Language, and Hearing Sciences and Director of Program (Graduate Adviser)

Steven J. Kramer, Ph.D., Professor of Speech, Language, and Hearing Sciences

Peter Torre, III, Ph.D., Professor of Speech, Language, and Hearing Sciences

Laura Dreisbach Hawe, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences

University of California, San Diego:

Co-Director of Program: Erika M. Zettner, Ph.D., Clinical Professor, Department of Surgery

Faculty: Harris, Ryan, Spriggs

Doctoral Program

General Information

A professional doctorate in audiology (Au.D.) is offered jointly by San Diego State University (SDSU) and the University of California, San Diego (UCSD). The joint doctoral program in audiology is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology. The Au.D. program is a four-year graduate degree program designed for individuals who intend to specialize in clinical practice and to meet professional standards requiring a clinical doctorate as the entry-level degree for a licensed and ASHA certified audiologist. Graduates of this program will have the knowledge base, research exposure, and advanced clinical skills to enter the workforce in any setting, and will be prepared to function as independent audiology professionals in the expanding health care arena. The program encompasses academic, clinic, and research experiences in audiology and otology through the combined resources from the School of Speech, Language, and Hearing Sciences at SDSU and the Division of Surgery (Otolaryngology) in the School of Medicine at UCSD. An Au.D. provides the essential education, technical training, research, and creative experience necessary for professional activity, college-level teaching, and precepting.

Admission to the Au.D. Program

Students will apply to the Au.D. joint doctoral program through SDSU. It is expected that students will come into this program from a variety of different science backgrounds, including speech, language, and hearing sciences, biological and physical sciences, engineering, psychology, nursing, or a pre-med curriculum. Applicants for admission to the Au.D. program must meet the general requirements for admission to both universities with classified graduate standing as outlined in the respective catalogs. Applicants must also meet the special requirements of this program. These include (a) submission of scores on the GRE; (b) prerequisite completion of at least one course in statistics, one course in biological science, one course in physical science, one course in behavioral/social sciences, and one course in American Sign Language. Deficiencies in these areas must be completed before enrollment in the program.

Applicants must submit transcripts of all post-secondary coursework, three letters of recommendation from former or current professors, supervisors, or other appropriate persons able to

judge their academic potential, and an applicant essay (statement of purpose) indicating their interests and strengths relative to their career objectives. Details of these requirements are available on the school's website. Assuming that the requirements for admission outlined above have been met, each student admitted to the program will have a program adviser evaluate their preparation, career goals, and professional certification requirements.

Applicant files are reviewed as a group by an Admissions Committee composed of Au.D. program faculty from each campus. Other Au.D. program faculty may review files and make recommendations to the Admissions Committee. Given the limited number of spaces available (10-12 new admissions each year are anticipated, subject to available facilities), the Admissions Committee will select the best-qualified applicants to fill the available spaces. No minimum set of qualifications will guarantee an applicant admission to the program. The Admissions Committee will make recommendations for admission to the graduate deans from each campus.

Application

Students seeking admission to the Au.D. program should consult the school's website for instructions and deadlines for applying. For additional information, write directly to the SDSU Au.D. Program Directors, School of Speech, Language, and Hearing Sciences, San Diego State University, 5500 Campanile Dr., San Diego, CA 92182-1518.

Students will be admitted to the Au.D. program only in the fall semester (first year is at SDSU). Applicants must complete two online applications (Cal State Apply and the program's application) by the deadline posted on the SDSU Au.D. website (<http://slhs.sdsu.edu/programs/aud>) to be considered for the program beginning in the following fall semester. International students should submit materials at least two weeks earlier than other applicants.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the application fee by the deadline provided on the school's website (typically by December 15) at <http://slhs.sdsu.edu/programs/aud>. Indicate "Audiology (AuD)" as your Major/Program Objective. Indicate "Doctorate" as the Degree Objective. Students must also electronically submit the program's online application by the posted deadline. See website for other required application materials.

Details of the admission process can be found on the School of Speech, Language, and Hearing Sciences website at <http://slhs.sdsu.edu>. All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Speech, Language, and Hearing Sciences. Incomplete applications will not be reviewed.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. (GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<https://www.ets.org/toefl> SDSU institution code 4682).

School of Speech, Language, and Hearing Sciences

The following admissions materials must be submitted electronically via the Communication Sciences and Disorders Centralized Application Service (CSDCAS) at <https://csdcas.com> by January 12:

1. Essay;
2. Curriculum vitae or resume;
3. Transcripts*;
4. Three letters of recommendation (Applicants must provide names and e-mail addresses for recommenders. At least two of the letters should be from faculty members. Recommenders will be sent an e-mail to complete the letters of recommendation electronically).

*Official transcripts must be mailed to CSDCAS Verification Department, P.O. Box 9113, Waterton, MA 02471

For information regarding the admissions process, visit the program website at <http://slhs.sdsu.edu/programs/aud>.

Once the above requirements have been satisfied, the Cal State Apply application is complete, and all transcripts and test scores have been submitted to Enrollment Services, the applicant's file is considered complete and eligible for review by the school's admissions review committee. Admission to a graduate program is guided by careful consideration of all the above materials. Applicants whose files are incomplete will not be eligible for admission to classified graduate standing. The number of new admissions is restricted and is determined by space availability; therefore, admission is based on consideration of all application materials and the relative merits of individual applicants among all eligible applicants.

Post Master's Degree Admissions

Students admitted to the Au.D. program with a master's degree in audiology will be expected to complete the four-year Au.D. curriculum. However, some students may have had a master's preparation in audiology in which some of the coursework was similar to some of the foundation courses in the Au.D. program. Upon entering the program, each individual will be assessed to determine competencies/knowledge in material that would put them on par with expectations for the Au.D. program. For some of the foundation core courses offered the first year at SDSU, e.g., Audiology 705, 710, 725, students may be given credit for the courses or be required to substitute a Doctoral Special Study (Audiology 798) course for one or more of these courses to ensure competencies or remediate deficiencies if approved by the program faculty. Credit for some of the first year clinic units may also be approved based on work experience; however, a full-complement of expected clinical skills must be demonstrated.

Specific Requirements for the Au.D. Degree

(Major Code: 12202) (SIMS Code: 550191)

Upon admission to the program, each student will be assigned a faculty adviser. The faculty adviser will help the student select a program of study to meet all program requirements. The Au.D. program is a four-year program, including summer semesters. An exact unit minimum is not specified due to the mixing of semester units (SDSU) and quarter units (UCSD) and differences in clinical hours at different settings; however, the program is approximately 134 semester-equivalent course units. All students in the Au.D. program will fulfill the following requirements. Any alternative method of fulfilling these requirements requires advanced written permission from the program directors.

Policy on English Competency for Students in the SDSU/UCSD Au.D. Joint Doctoral Program. The academic and clinical components of the Au.D. program are based on proficiency (understanding and use) of English, in oral and written forms. Incoming students will have an assessment of their English proficiency during an advising appointment in the first week of the program. This is accomplished through dialogue with the student and, if indicated, reading a short paragraph, and/or writing a short paragraph. For students who have problems with oral or written English proficiency, the adviser will arrange a meeting with the

program director and clinic director to discuss a plan of action to improve English proficiency. In some cases, this may delay progress in the program.

Residency Requirements. After formal admission to the Au.D. program, the student must complete a minimum of course hours that is equivalent to one year's full-time enrollment at each campus. The definition of residence must be in accord with the regulations of San Diego State University and the University of California, San Diego. The program is designed to be shared between the two campuses. The first year is entirely at SDSU, the second year is entirely at UCSD, and the third year is primarily at SDSU, but should include some options at UCSD. The fourth year of the program is a full-time clinical externship at a program-approved clinic agency/site. Both campuses will share in the academic, clinic, and research components of the program.

Course Requirements. The program for each student will consist of 14 core courses, half of which are to be taken at each campus, and 14 elective courses, with a minimum of four to be taken at each campus. The student's faculty adviser must approve all courses.

A student who earns less than a 3.0 grade point average in academic and/or clinical coursework in any given term will be placed on academic probation for the next term. If, at the end of the probationary term, the student fails to achieve a 3.0 grade point average in academic and/or clinical coursework, the student will be subject to disqualification from the program. See the Au.D. student handbook on the program's website regarding performance and disqualification policies.

Clinic Requirements. Each student will progress through a variety of clinical experiences involving patient assessment and management throughout their program of study. Clinic experiences will require concurrent enrollment in clinic courses appropriate for the campus in which they are doing the clinical work. These precepted clinical experiences are completed in the SDSU Audiology Clinic, UCSD Otology/Audiology Clinic, and in community field sites. Clinic courses require adviser approval prior to enrollment. Students must maintain an average grade of B or better to pass clinic courses. Students are assessed across clinical skill categories to include advocacy/consultation, assessment, education/research/administration, foundations of practice, intervention, prevention and identification, and professional skills. Prior to the fourth year externship, each student will complete approximately 700 hours of clinic experience.

Preceptorship in Otology. All students will have at least one quarter of a clinical rotation with otology staff associated with UCSD. Students will accompany one of the otology faculty during their clinics and receive training in one or more of the following areas; clinical otology, pre-and post-operative assessment of patients, pharmacology related to otology, design and implementation of clinical trials with balance disorders.

Clinical Staffings. In addition, all students will be required to regularly participate in formal clinical case study/staffing experiences. At SDSU, these clinical staffings include student and faculty presentations and discussions of interesting cases seen in their clinics. At UCSD, these staffings include, the Chairman's Conference, where Au.D. students/residents and medical staff discuss otological problem cases and disorders, and the Neurotology Conference, where UCSD and community physicians, and students/residents discuss cases dealing with neurological diseases and vestibular disorders.

Fourth Year Externship. The fourth year externship is a full time clinical experience in an approved agency/site. These

Audiology

externships may require a competitive interview process by the agency. Externship sites may be in other parts of the country. All students in their fourth year externship must also enroll in the on-line clinical seminar at SDSU each semester.

Examinations. All students in the program will be evaluated at the following levels:

1. **First-Year Evaluation:** Students must have achieved a 3.0 cumulative grade point average for core and elective courses during the first year and have appropriate clinical skills. The student's ability to integrate the academic material and clinic procedures appropriate for the end of the first year will be assessed through a First Year Qualifying Examination. The First Year Qualifying Examination may be repeated once following additional directed study by the student's adviser. Students must pass the First Year Evaluation in order to enroll in second year courses.
2. **Second-Year Evaluation:** Students must have achieved a cumulative grade point average of 3.0 for core and elective courses, and have appropriate clinical skills. The student's ability to integrate the academic and clinic procedures appropriate for the end of the second year will be assessed through a Second Year Qualifying Examination. The Second Year Qualifying Examination may be repeated once following additional directed study by the student's adviser. Students must pass the Second Year Evaluation in order to enroll in third year courses.
3. **Third-Year Examination:** In the third year, and after Advancement to Candidacy (see below), the student will take a written Third-Year Examination that covers broad professional content. Students may not enroll in externship until passing the examination.

Advancement to Candidacy. Candidates will be recommended for Advancement to Candidacy after successfully completing all course and clinic requirements for Year 1 and Year 2 (with a minimum grade point average of 3.0), satisfactory performance on the first and second year Qualifying Examinations, and approval of the doctoral project proposal. Students cannot enroll in the doctoral project course, take the comprehensive examination, or register for their externship until advanced to candidacy. The program's Executive Committee recommends students eligible for advancement to candidacy to the graduate deans of both institutions.

Doctoral Project. Each student will complete a data-based doctoral research project. Students will select a Doctoral Project Committee comprised of two Au.D. program faculty (one from each campus) and at least one additional tenured faculty member from either campus external to the program. The chair of the committee can be from either campus. The Executive Committee will approve each student's Doctoral Project Committee. All doctoral projects will be written in a format approved by the student's Doctoral Project Committee. The student's final written document will be approved by the student's Doctoral Project Committee and presented in a forum open to all faculty and students. Each student will enroll in two sections of the appropriate doctoral project course depending on the campus in which their committee chair resides. Students enrolling in AUD 299 at UCSD must also enroll at SDSU in a program course or three units of AUD 897.

Award of the Degree. The Doctor of Audiology (Au.D.) degree will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both cooperating institutions.

Financial Support

Funding for graduate students cannot be guaranteed, although every effort will be made to provide some financial support for as many students as possible, through graduate/teaching assistantships, research grants, clinical traineeships, and/or scholarships. Financial support will be awarded consistent with the policies of

the two universities. Tuition and fees will be charged in accordance with the extant policies at the campus in which the student is matriculated in a given year.

Courses Acceptable for Au.D. Degree Program in the School of Speech, Language, and Hearing Sciences (AUD)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

AUD 696. Selected Topics in Audiology (1-3)

Prerequisite: Graduate standing.

Intensive study in specific areas of audiology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

AUD 700. Hearing Science (3)

Prerequisite: Admission to doctoral program.

Nature of sound and applications to hearing and speech, including acoustics, structure, and function of auditory system, and perception of sound.

AUD 701. Clinical Practice I (1-3)

One unit represents three hours per week.

Prerequisites: Credit or concurrent registration in Audiology 705 and 710.

Applications of clinical procedures to patient assessment. Includes computer-based simulated cases, clinical observations, and supervised patient care involving diagnostics and hearing aid evaluations at the on-campus audiology clinic. May be repeated.

AUD 702. Clinical Methods Lab (1)

Two hours of activity.

Prerequisite: Concurrent registration in Audiology 701.

Practice in tests and methods used in audiological clinical practice. May be repeated. Maximum credit three units.

AUD 705. Diagnostic Audiology I (3)

Two lectures and two hours of activity.

Prerequisite: Admission to doctoral program.

Theoretical bases and technical experience necessary to perform basic audiologic assessment, including otoscopy, pure-tone, masking, speech, and immittance measures, testing and patient counseling. Hands-on experiences with different tests and equipment.

AUD 710. Hearing Amplification I (4)

Three lectures and two hours of activity.

Prerequisite: Admission to doctoral program.

Hearing aid components and signal processing, electroacoustic analysis, prescriptive techniques, verification procedures, hearing aid orientation, follow-up and troubleshooting.

AUD 712. Research and Evidence-Based Practice in Audiology (3)

Prerequisite: Admission to the doctoral program.

Research methods and scientific writing in audiology/hearing science; critical evaluation of research; evidence-based practice in audiology; research proposal development.

AUD 715. Diagnostic Audiology II (3)

Two lectures and two hours of activity.

Prerequisite: Audiology 705.

Advanced procedures, including video-otoscopy, cerumen management, multiple component tympanometry, tests for 8th nerve, non-organic, and central involvement, and calibration. Principles and procedures for otoacoustic emission measurements (OAEs). Pathologies as they relate to audiologic measures.

AUD 720. Auditory Evoked Potentials I (4)

Prerequisites: Audiology 700 and 705.

Theoretical and clinical aspects of auditory evoked potentials, specifically otoacoustic emissions and their measurement, electrocochleography, and auditory brainstem responses.

AUD 721. Clinical Case Studies and Staffings I (1)

Prerequisite: Concurrent registration in Audiology 701.

Presentations and discussion of clinical cases and issues relative to clinical practice. Students' clinical experiences are discussed relative to medical and audiological assessment and management.

AUD 725. Pediatric Audiology (3)

Prerequisites: Audiology 700 and 705.

Development of normal and abnormal auditory behavior, behavioral and physiological testing of infants and children, hearing screening for pre- and school-age children, educational audiology, auditory processing disorders, counseling of patient and family, and assistive listening devices.

AUD 795. Research Practicum (3) Cr/NC

Prerequisites: Admission to doctoral program and consent of instructor.

Participation in specific faculty research activities. Research methods and objectives of a specific research laboratory. Data collection and analysis.

AUD 798. Doctoral Special Studies (1-3) Cr/NC

Prerequisites: Admission to doctoral program and consent of instructor.

Individual study in field of specialization.

DOCTORAL COURSES

AUD 800. Instrumentation in Audiology/Hearing Science (3)

Two lectures and two hours of activity.

Prerequisites: Audiology 710 and 720.

Advanced concepts and hands-on experiences with different audiological instruments to improve diagnostic skills in behavioral and physiologic tests. Calibration techniques and instrumentation. Critical thinking, reasoning, and problem-solving skills pertaining to equipment use and testing parameters.

AUD 801. Clinical Practice II (1-2)

One unit represents three hours per week.

Prerequisites: Open to third year doctoral students and consent of instructor.

Diagnostics and hearing aid evaluations/fittings in the on-campus audiology clinic. May be repeated. Maximum credit three units.

AUD 802. Clinical Precepting in Audiology (1)

Prerequisite: Audiology 701.

Effective precepting, determining appropriate teaching styles to maximize clinical learning, including timely and positive feedback regarding clinical progress and assigning grades. Identifying need for remediation and developing effective programs to target deficient skills. May be repeated. Maximum credit three units.

AUD 810. Seminar in Amplification Research and Technology (2)

Amplification, advances in hearing aid analysis, selection and verification techniques, advanced hearing aid signal processing strategies, programmable and digital technology, sensory aids for special applications.

AUD 815. Communication Disorders Across Lifespan and Cultures (2)

Communication processes and disorders from infancy to elderly, including phonetics, phonology, speech, and language. Prepares audiologists to recognize a variety of communication disorders, and to learn how to apply screening instruments, in culturally sensitive ways, and to make appropriate referrals.

AUD 830. Seminar in Contemporary Topics in Audiology and Hearing Science (2)

Prerequisite: Open to third year doctoral students.

Audiology and hearing science. Reading and critiquing journal articles and data emerging from research laboratories.

AUD 831. Field Clinical Practice (3-6)

One unit represents four hours per week.

Prerequisites: Open to third year doctoral students and consent of instructor.

Supervised practicum in one or more approved community agencies. May be repeated.

AUD 835. Psychoacoustics (3)

Prerequisite: Admission to doctoral program.

Psychophysical concepts underlying clinical audiology. Psychoacoustic abilities of individuals with normal hearing and sensorineural hearing loss. Practical experience in conducting psychoacoustic tests.

AUD 840. Auditory Evoked Potentials II (2)

Prerequisite: Audiology 720.

Advanced techniques in measurement of otoacoustic emissions and later auditory evoked potentials. Otoacoustic emission level dependence, group delay, and suppression; middle latency and steady-state responses, cortical auditory evoked potentials (N1-P2), and auditory event-related potentials (MMN, P3).

AUD 845. Hearing Conservation (1)

Prerequisites: Audiology 700 and 705.

Hearing conservation programs in various settings. Current research on occupational noise exposure and hearing loss and workers' compensation coverage of hearing loss.

AUD 871. Externship in Audiology (10)

Prerequisite: Advancement to candidacy.

Full-time clinical externship at approved agency. Continuation and intensification of clinical experiences with reduced amount of direct supervision culminating in ability to work independently. Maximum credit 30 units.

AUD 891. On-Line Integrative Clinical Seminar (2)

Prerequisites: Advancement to candidacy and consent of adviser.

On-line discussion of clinical experiences and interesting cases. Maximum credit six units.

AUD 897. Independent Research (1-3) Cr/NC/RP

Prerequisite: Consent of adviser.

Research in audiology or hearing science. Maximum credit three units applicable to the audiology degree.

AUD 899. Doctoral Project (1-3) Cr/NC/RP

Prerequisites: Audiology 712 and advancement to candidacy.

Individual investigation and preparation of the doctoral project for the audiology degree.

Bioinformatics and Medical Informatics

IN THE COLLEGE OF SCIENCES

OFFICE: Physical Sciences 123

TELEPHONE: 619-594-1672

E-MAIL: redwards@sdsu.edu

Associated Faculty

Robert A. Edwards, Ph.D., Professor of Computer Science, Interim
Director of Bioinformatics and Medical Informatics

Andrew J. Bohonak, Ph.D., Professor of Biology and Assistant
Dean of the Division of Graduate Affairs

Nader Amir, Ph.D., Professor of Psychology

Stephanie K. Brodine, M.D., Professor of Public Health

Kelly S. Doran, Ph.D., Professor of Biology

Willa L. Fields, D.N.Sc., Professor of Nursing

Scott T. Kelley, Ph.D., Professor of Biology

Susan M. Kiene, Ph.D., Professor of Public Health

Sunil Kumar, Ph.D., Professor of Electrical and Computer
Engineering

Richard A. Levine, Ph.D., Professor of Statistics

Hala N. Madanat, Ph.D., Professor and Director of Graduate
School of Public Health

Georg E. Matt, Ph.D., Professor and Chair of Psychology

Kathleen L. McGuire, Ph.D., Professor of Biology

Robert P. Metzger, Ph.D., Professor of Chemistry, Emeritus

Chunting C. Mi, Ph.D., Professor and Chair of Electrical and
Computer Engineering

Ralph-Axel Müller, Ph.D., Professor of Psychology

Claire Murphy, Ph.D., Professor of Psychology

Thomas E. Novotny, M.D., Professor of Public Health, Emeritus

Yusuf Ozturk, Ph.D., Professor of Electrical and Computer
Engineering

Usha Sinha, Ph.D., Professor of Physics

Mark A. Sussman, Ph.D., Albert W. Johnson Distinguished
Professor of Biology

Gregory A. Talavera, M.D., Professor of Public Health

Mahmoud Tarokh, Ph.D., Professor of Computer Science

Faramarz Valafar, Ph.D., Professor of Computer Science

Elizabeth R. Waters, Ph.D., Professor of Biology

Tao Xie, Ph.D., Professor of Computer Science

Robert W. Zeller, Ph.D., Professor of Biology

Ashkan Ashrafi, Ph.D., Associate Professor of Electrical and
Computer Engineering

Jong-Deuk Baek, Ph.D., Associate Professor of Public Health

Barbara Ann Bailey, Ph.D., Associate Professor of Statistics

B. Mikael Bergdahl, Ph.D., Associate Professor of Chemistry and
Biochemistry

Elizabeth A. Dinsdale, Ph.D., Associate Professor of Biology

Chii-Dean Lin, Ph.D., Associate Professor of Statistics

John J. Love, Ph.D., Associate Professor of Chemistry and
Biochemistry

Ksenija Marinkovic, Ph.D., Associate Professor of Psychology

Mahawseta Sarkar, Ph.D., Associate Professor of Electrical and
Computer Engineering

Wei Wang, Ph.D., Associate Professor of Computer Science

Xiaobai Liu, Ph.D., Assistant Professor of Computer Science

Jillian L. Wiggins, Ph.D., Assistant Professor of Psychology

Adjunct Faculty

University of California, San Diego:

Antonino Catanzaro, M.D., Professor of Pulmonary Health

Lucila Ohno-Machado, M.D., Ph.D., Professor of Medicine

Gerard Hardiman, Ph.D., Associate Professor of Medicine

Timothy Rodwell, M.D., Ph.D., M.P.H., Associate Professor of
Pulmonary Health

Hyeon-Eui Kim, Ph.D, M.P.H., R.N., Assistant Professor of
Biomedical Informatics

Christopher H. Woelk, Ph.D., Assistant Professor of Biomedical
Informatics

Siamak Yousefi, Ph.D., Assistant Project Scientist, Shiley Eye
Institute

University of California, Los Angeles:

Neema Jamshidi, M.D., Ph.D., Diagnostic Radiology

Public Health Agency of Sweden:

Sven Hoffner, Ph.D., Karolinska Institute

La Jolla Institute for Allergy and Immunology:

Bjoern Peters, Ph.D., Center for Infectious Disease

Anjano Rao, Ph.D., Signaling and Gene Expression Research

VA Hospital:

Alan Calvitti, Ph.D., System Biology

West Wireless Health Institute:

Hassan Ghazemzadeh, Ph.D., Research Engineering Group

General Information

Bioinformatics and Medical Informatics (BIOMI) are multidisciplinary fields at the intersection of computing and informatics, mathematics and statistics, biology, chemistry, and engineering.

The explosion in genomic information and in the elucidation of pathways of various types has created an unprecedented, but largely unmet, need for professionals with a working knowledge of the biological sciences and computing/statistical methods. The shortage, which is especially severe in the biotechnology and pharmaceutical industries, has been documented by various studies and discussed in the press. We can also observe a comparable demand in hospital and other clinical settings as the impact of new technologies spreads into clinical research and medical practice.

Research and development (R&D) in BIOMI can be categorized into one of three branches. The first branch is the algorithm development branch in which R&D specialists use mathematical and engineering techniques to develop new, more efficient, and/or more accurate methods to mine biological or clinical data. The second branch falls within the software engineering paradigm and primarily focuses on R&D in human-computer interface. The third branch seeks to find answers to specific biological or medical questions including drug development or working to uncover the underlying mechanisms involved in specific biological systems or specific diseases. In the first year of the program, students in consultation with their graduate adviser will take basic courses within two of the following four disciplines: biology, chemistry, computer science, and mathematics/statistics.

For specialization in the algorithm development branch, students can choose courses and projects in areas such as statistics, data mining, pattern recognition, artificial intelligence, search strategies, network architecture, digital image processing and advance imaging, modeling, decisions systems design, and analytical studies in various biological and clinical specializations. For specialization in the human-computer interface branch, students can choose courses and projects in areas such as principals of software design, human interface design, network architecture, usability studies, database design and management, computer

graphics and animation, CAD, and programming languages. For the third specialization students take a combination of courses in the areas listed above plus some specialized courses such as computer aided drug design.

The change towards quantitative analysis in life and clinical sciences has been so rapid that universities have been caught unprepared: few offer suitable courses, and virtually none offer a well integrated curriculum that meets the needs that are sure to grow and evolve as life sciences become increasingly conceptual and quantitative.

San Diego State University's BIOMI graduate program offers two related but distinct tracks. The first is a professional science master concentration preparing students for immediate productivity in industrial or clinical settings. The second is a traditional master of science preparing students for academic setting or continuation in a Ph.D. program.

Admission to Graduate Study

In addition to the general requirements for admission to the university with classified graduate standing, as described in Part Two of the *Graduate Bulletin*, a student must satisfy the following requirements before being considered for recommendation to enter the masters program.

1. Meet the requirements deemed equivalent to a baccalaureate degree in biology, chemistry, computer science, mathematics, statistics, or a field in engineering.
2. Meet BIOMI program's expectations on the GRE General Test.
3. Be considered as capable of graduate work in bioinformatics or medical informatics by at least two references who have submitted letters to the BIOMI program director.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

Students who do not meet all of the above requirements for admission with classified graduate standing may be admitted with conditionally classified graduate standing upon the recommendation of the research program. Students so admitted will be advised as to the nature of their deficiency and the time to be allowed to achieve full classified graduate standing. Conditions may include satisfactory passing of certain undergraduate courses. These courses will be in addition to the minimum of 33-38 units required for the program.

Graduate Admissions

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Bioinformatics and Medical Informatics program.

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Science Degree in Bioinformatics and Medical Informatics

The following materials should be mailed or delivered to:

Bioinformatics and Medical Informatics

(BIOMI) Graduate Program
(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7720

1. Two letters of recommendation (in sealed and signed envelopes) from persons in a position to judge academic ability.
2. Personal statement of motivating interest for the program; also briefly describe research interests and educational and professional goals.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 07994) (SIMS Code: 771490)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a program of study totaling 38 units for the concentration in professional science master and 33 units for the master of science as described below. No more than 12 units of 500-level courses can be applied toward the degree or concentration.

1. Complete 12 units of required core courses.

BIOMI 568/BIOL 568	Bioinformatics.....	3
BIOMI 600/CS 600	Methods in Bioinformatics, Medical Informatics, and Cheminformatics	3
BIOL 510	Molecular Evolution	3
CHEM 560	General Biochemistry.....	3
2. Complementary: Nine units in a field complementary to the student's background with approval of the graduate coordinator selected from the following courses.

BIOMI 609/CS 609	Computational Genomics and Bioinformatics.....	3
BIOL 562	Ecological Metagenomics	3
BIOL 740	Phylogenetic Systematics	3
CHEM 567	Biochemistry Laboratory	3
CS 514	Database Theory and Implementation.....	3
CS 520	Advanced Programming Languages.....	3
CS 532	Software Engineering	3
CS 560	Algorithms and Their Analysis.....	3
CS 605/COMP 605	Scientific Computing	3
CS 615	Spatial Database	3
P H 602	Biostatistics	3
P H 700A	Seminar in Public Health: Epidemiology.....	1-3
STAT 551A	Probability and Mathematical Statistics.....	3
STAT 551B	Probability and Mathematical Statistics.....	3
STAT 680A-680B	Advanced Biostatistical Methods.....	3-3
3. Electives: Six units of approved 500-, 600-, or 700-level electives in disciplines related to the student's specialization with approval of the graduate coordinator.
4. Six units of research including Thesis:

BIOMI 797	Research.....	(3) Cr/NC/RP
BIOMI 799A	Thesis or Project.....	(3) Cr/NC/RP

**Professional Science Master Concentration
(Major Code: 07994) (SIMS Code: 771489)**

1. Complete 12 units of required core courses.

BIOMI 568/BIOL 568	Bioinformatics.....	3
BIOMI 600/CS 600	Methods in Bioinformatics, Medical Informatics, and Cheminformatics.....	3
BIOL 510	Molecular Evolution	3
CHEM 560	General Biochemistry.....	3
2. Complementary: Twelve units in a field complementary to the student's background with approval of the graduate coordinator selected from the following courses.

CHEM 567	Biochemistry Laboratory	3
CS 514	Database Theory and Implementation.....	3
CS 520	Advanced Programming Languages	3
CS 605 or COMP 605	Scientific Computing	3
STAT 551A	Probability and Mathematical Statistics.....	3
STAT 551B	Probability and Mathematical Statistics.....	3
3. Electives: Nine units of approved 500-, 600-, or 700-level electives in disciplines related to the student's specialization with approval of the graduate coordinator.
4. Five units of research including Thesis:

BIOMI 797	Research.....	2 (Cr/NC/RP)
OR		
BIOMI 798	Special Study	2 (Cr/NC/RP)
BIOMI 799A	Thesis or Project.....	3 (Cr/NC/RP)

**Courses Acceptable for Master's Degree
Program in Bioinformatics and Medical
Informatics (BIOMI)**

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

**BIOMI 568. Bioinformatics (3)
(Same course as Biology 568)**

Two lectures and three hours of laboratory.

Prerequisite: Biology 366.

Bioinformatics analysis methods and programming skills. Practical bioinformatic software for sequence analysis, bioinformatic algorithms and programming fundamentals.

**BIOMI 596. Special Topics in Bioinformatics and Medical
Informatics (1-4)**

Prerequisite: Consent of instructor.

Advanced selected topics in bioinformatics and medical informatics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

**BIOMI 600. Methods in Bioinformatics, Medical Informatics,
and Cheminformatics (3)
(Same course as Computer Science 600)**

Prerequisites: Three units of calculus and graduate standing.

Computer, mathematical, and engineering techniques for bioinformatics, cheminformatics, and medical informatics. Techniques used in microarray data analysis, gene and protein sequence alignment, and classification techniques in medical decision making.

**BIOMI 609. Computational Genomics and Bioinformatics (3)
(Same course as Computer Science 609)**

Prerequisite: Computer Science 503 or 514.

Biological and genomic data. Application of computational algorithms to biological questions. Post-genomic techniques in annotation and comparison of microbial and eukaryotic genome sequences.

**BIOMI 696. Advanced Topics in Bioinformatics and Medical
Informatics (1-3)**

Prerequisite: Graduate standing in bioinformatics and medical informatics or consent of instructor.

Recent technological developments and scientific breakthroughs that have a changing effect on the field of biomedical informatics. May be repeated with new content. See *Class Schedule* for specific content. Credit for 696 applicable to a master's degree with approval of the graduate adviser.

**BIOMI 796. Selected Topics in Bioinformatics and Medical
Informatics (1-3)**

Prerequisite: Graduate standing in bioinformatics and medical informatics or consent of instructor.

Intensive study in specific areas of biological or medical informatics. In-depth investigation of specific challenges in the field as well as introduction to current and emerging technologies. May be repeated with new content. See *Class Schedule* for specific content. Credit for 796 applicable to a master's degree with approval of the graduate adviser.

BIOMI 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of instructor.

Research in one of the fields of bioinformatics and medical informatics. Maximum credit six units applicable to a master's degree.

BIOMI 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with graduate coordinator.

Individual study. Maximum credit six units applicable to a master's degree.

BIOMI 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

BIOMI 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

Biology

IN THE COLLEGE OF SCIENCES

OFFICE: Life Sciences 104

TELEPHONE: 619-594-6767 / **FAX:** 619-594-5676

WEBSITE: <http://www.bio.sdsu.edu>

Faculty

Robert W. Zeller, Ph.D., Professor of Biology, Chair of Department

Marshal C. Hedin, Ph.D., Professor of Biology, Associate Chair of Department (Graduate Adviser, M.A./M.S. programs)

Greg L. Harris, Ph.D., Professor of Biology, Vice Chair of Department

Todd W. Anderson, Ph.D., Professor of Biology

Sanford I. Bernstein, Ph.D., Albert W. Johnson Distinguished Professor of Biology, Emeritus

Annalisa Berta, Ph.D., Professor of Biology, Emeritus

Richard W. Bizzoco, Ph.D., Professor of Biology, Emeritus

Andrew J. Bohonak, Ph.D., Professor of Biology and Assistant Dean of the Division of Graduate Affairs

Michael J. Buono, Ph.D., Professor of Biology

Kevin Burns, Ph.D., Professor of Biology

(Graduate Adviser, Evolutionary Biology, M.S. program)

Matthew S. Edwards, Ph.D., Professor of Biology

Christopher C. Glembotski, Ph.D., Professor of Biology

Kevin A. Hovel, Ph.D., Professor of Biology

Scott T. Kelley, Ph.D., Professor of Biology
(Graduate Adviser, Molecular Biology, M.S. program)

Rebecca L. Lewison, Ph.D., Professor of Biology

David A. Lipson, Ph.D., Professor of Biology

Stanley R. Maloy, Ph.D., Professor of Biology and Associate Vice President for Research and Innovation of Graduate and Research Affairs

Leroy R. McClenaghan, Jr., Ph.D., Professor of Biology, Emeritus

Kathleen L. McGuire, Ph.D., Professor of Biology

Walter C. Oechel, Ph.D., Albert W. Johnson Distinguished Professor of Biology (Graduate Adviser, Ecology Ph.D. program) and Interim Dean of the College of Sciences

Jacques Perrault, Ph.D., Professor of Biology, Emeritus

Robert S. Pozos, Ph.D., Professor of Biology

Tod W. Reeder, Ph.D., Professor of Biology and Associate Dean for Graduate and Research Affairs of the College of Sciences

Forest L. Rohwer, Ph.D., Professor of Biology

Anca Mara Segall, Ph.D., Professor of Biology
(Graduate Adviser, Microbiology, M.S. program)

Mark A. Sussman, Ph.D., Albert W. Johnson Distinguished Professor of Biology

Constantine Tsoukas, Ph.D., Professor of Biology, Emeritus

Elizabeth R. Waters, Ph.D., Professor of Biology
(Graduate Adviser, Evolutionary Biology Ph.D. program)

Stephen C. Welter, Ph.D., Professor of Biology

Roland Wolkowicz, Ph.D., Professor of Biology

Rulon W. Clark, Ph.D., Associate Professor of Biology

Elizabeth A. Dinsdale, Ph.D., Associate Professor of Biology

Ralph Feuer, Ph.D., Associate Professor of Biology

Brian T. Hentschel, Ph.D., Associate Professor of Biology

Chun-Ta Lai, Ph.D., Associate Professor of Biology

Jeremy D. Long, Ph.D., Associate Professor of Biology
(Graduate Adviser, Ecology, M.S. program)

Ricardo M. Zayas, Ph.D., Associate Professor of Biology
(Graduate Adviser, Biology Ph.D. program)

Lluvia H. Flores Renteria, Ph.D., Assistant Professor of Biology

Marina G. Kalyuzhnaya, Ph.D., Assistant Professor of Biology

Nicholas J. Shikuma, Ph.D., Assistant Professor of Biology

Xiaofeng Xu, Ph.D., Assistant Professor of Biology

Donatella Zona, Ph.D., Assistant Professor of Biology

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships in biology are available to qualified students on a competitive basis. Application and additional information may be secured from the graduate adviser in biology.

General Information

The Department of Biology offers graduate study leading to the degrees of Master of Arts and Master of Science in biology and the Master of Science degree in microbiology. In addition, the Department of Biology offers three doctoral programs leading to the Ph.D. in biology (cell and molecular) with the University of California, San Diego, in ecology with the graduate group in ecology at the University of California, Davis, and in evolutionary biology with the University of California, Riverside. These academic programs can prepare students for careers in research, education, and public service.

Modern life science buildings provide facilities for graduate study in the biological sciences. San Diego State University also operates the Coastal and Marine Institute Laboratory on San Diego Bay, the SDSU Field Stations program with research stations at the Sky Oaks Biological Field Station near Warner Springs, the Santa Margarita Ecological Reserve near Temecula (Riverside County), and a research site at Fortuna Mountain.

Additional facilities and opportunities available in the community include the Tijuana Estuary Reserve, San Diego Zoo and Hospital, the United States Department of Agriculture, Fish and Game Commission, the Hubbs-Sea World Research Institute, the San Diego Natural History Museum, and the Naval Undersea Center.

Admission to Master's or Doctoral Study

Students applying for admission should electronically submit the university application along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Biology.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes or electronically submitted) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Arts Degree in Biology

Master of Science Degree in Biology

Master of Science Degree in Microbiology

The following admissions materials must be submitted electronically;

1. Personal statement;
2. Application for teaching assistantship (optional);
3. Three letters of recommendation;
4. Unofficial transcripts;
5. Curriculum vitae or resume.

Biology

Complete instructions can be found at <http://www.bio.sdsu.edu/MastersApp/Proc.html>.

Ph.D. Degree in Biology (Cell and Molecular)

Applications to the Ph.D. program in biology (cell and molecular) require an online application through <http://www.calstate.edu/apply>. Applications are due by December 15 (or the preceding weekday if December 15 falls on a weekend or holiday). For additional information visit <http://www.bio.sdsu.edu/cmobi/propsinfo.html>.

Ph.D. Degree in Ecology

Application to the Ph.D. program in ecology is a two-step process. The first step requires an online application to the Joint Doctoral Program in Ecology (JDPE) through University of California, Davis at <http://ecology.ucdavis.edu/admissions/jointprogram.html>. A joint SDSU-UCD JDPE admissions committee will evaluate applications. Those selected will be asked to submit an abbreviated application at <http://www.calstate.edu/apply>. All applicants must identify a faculty member at SDSU who has agreed to act as their faculty adviser for the Ph.D. program, if accepted. The person should be listed as the faculty member with whom they have spoken on their SDSU and UCD applications. Applications to UCD are due by December 15 (or the preceding week day if December 15 falls on a weekend or holiday). For additional information, consult the website http://www.bio.sdsu.edu/ecology/ecology_joint_doc_app.php or the coordinator or director for the Ph.D. program in ecology.

Ph.D. Degree in Evolutionary Biology

Application to the Ph.D. in evolutionary biology requires online application to SDSU through <http://www.calstate.edu/apply>.

All applicants must identify a faculty member at SDSU who has agreed to act as their major professor for the Ph.D. program. Applications are due by December 15 (or the preceding week day if December 15 falls on a weekend or holiday). For additional information consult the website: <http://www.bio.sdsu.edu/eb/jdeb.html>.

Section I. Master's Degree Programs

The Master of Science degrees in biology and microbiology are acceptable as preparation for more advanced degree programs. Studies for degrees in biology must be completed in one of the research programs listed below. The Master of Arts degree in biology has a foreign language requirement.

Admission to the Degree Curriculum

In addition to the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, a student must satisfy the following requirements before he/she will be considered for recommendation to enter the masters program.

1. Meet the requirements deemed equivalent to a baccalaureate degree in biology or microbiology at San Diego State University.
2. Have a grade point average of 2.85 or better on work taken for the baccalaureate degree.
3. Have a grade point average of 3.0 or better in upper division courses (at least 24 units) acceptable for the major.
4. Meet biology departmental expectations on the GRE General Test.
5. Be considered as capable of graduate work in the biological sciences by at least two letters of reference submitted to the biology graduate adviser.
6. Be accepted by a research program and be sponsored by a faculty member of the area (required only for programs in ecology and evolutionary biology).

NOTE: Admission to a research program within the biology graduate program will be limited to the number of students for which adequate facilities and faculty sponsorship are available. Students should therefore be as specific as possible in their

indication of research interests and career goals. Individual research programs will admit students solely on the basis of merit in relation to space and faculty availability.

Students who do not meet all of the above requirements for admission with classified graduate standing may be admitted with conditionally classified graduate standing upon the recommendation of the research program. Students so admitted will be advised as to the nature of their deficiency and the time to be allowed to achieve full classified graduate standing.

Biology

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, including the foreign language requirement for the Master of Arts degree, as stated in Part Four of this bulletin. Presenting a successful thesis proposal (as indicated by submission of a completed thesis proposal form) is required to be advanced to candidacy.

Specific Requirements for the Master of Arts Degree in Biology

(Major Code: 04011) (SIMS Code: 771402)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of 30 units of upper division and graduate courses selected, with the approval of the graduate adviser, from the biological sciences as listed below, or from closely related fields. At least 15 of the units selected must be in 600- and 700-numbered courses, including Biology 799A, Thesis. A maximum of six units of the required 30 units may be selected from acceptable courses offered in the College of Education. A reading knowledge of scientific French, German, Russian, or Spanish, and a final oral examination in the field of the thesis and its implications in the broad fields of biology are also required.

Specific Requirements for the Master of Science Degree in Biology

(Major Code: 04011) (SIMS Code: 771401)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of 30 units of upper division and graduate courses selected, with the approval of the graduate adviser, from the biological sciences as listed below, or from closely related fields. At least 15 of the units selected must be in 600- and 700-numbered courses, including Biology 799A, Thesis. A maximum of six units of the required 30 units may be selected from acceptable courses offered in the College of Education. A final oral examination in the field of the thesis and its implication in the broad fields of biology is also required.

Master's Degree Research Programs

Ecology (Major Code: 04201) (SIMS Code: M.A. 771416; M.S. 771417): The overall program emphasizes quantitative approaches to ecological research and the framing of problems within the general context of ecological theory. Faculty and student research currently falls into the areas of marine ecology, plant community ecology and primary productivity, physiological plant ecology, animal population ecology and energetics, ecological genetics, ecosystems management, and systems ecology. Program adviser, Long.

Evolutionary Biology (Major Code: 04071) (SIMS Code: M.A. 771488; M.S. 771488): This research program is broadly concerned with the biology and evolution of whole organisms. The student has a wide variety of research areas from which to choose, including morphology, systematics, paleontology, natural history, behavior, comparative physiology, developmental biology, population genetics, coevolution, and evolutionary theory.

Many groups of organisms are studied, including marine and terrestrial invertebrates, vertebrates, and plants. Program adviser, Burns.

In addition to the emphases described above, a number of faculty have active research programs in marine biology and accept graduate students in this area.

Microbiology (Major Code: 04111) (SIMS Code: M.S. 771451): A separate graduate degree is offered in microbiology. Program adviser, Segall.

Molecular Biology (Major Code: 04161) (SIMS Code: M.A. 771459; M.S. 771458): The program area is concerned with biology at the molecular level, with particular emphases on the correlation of structure and function of macromolecules, catalysis and control, molecular genetics, regulation of gene expression, and the molecular basis of cellular architecture, cell movement, bioenergetics and membrane function (administered through Molecular Biology Institute). Program adviser, Kelley.

Physiology (Major Code: 04101) (SIMS Code: M.A. 771466; M.S. 771465): Research opportunities are offered by faculty in the cell and molecular biology, ecology, and evolutionary biology program areas. Subareas of interest include cardiovascular, cellular, molecular, physiological plant ecology, and comparative physiology. Requirements for this program vary depending on the program area of the faculty adviser and prospective applicants are encouraged to contact potential faculty advisers or the program adviser before applying. Program adviser, Harris.

Microbiology

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as stated in Part Four of this bulletin. Satisfactory progress on the thesis research will be prerequisite to obtaining departmental approval for advancement.

Specific Requirements for the Master of Science Degree in Microbiology

(Major Code: 04111) (SIMS Code: 771451)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of 30 units of upper division and graduate courses selected, with the approval of the graduate adviser, from the biological sciences and closely related fields. All students entering the Master of Science program in microbiology will be required to take an advanced course in the molecular biology of microbes.

Not less than 18 units must be selected from courses in the area of microbiology. Among the 600- and 700-numbered courses selected, the student's program must include Biology 799A, Thesis. A maximum of six units of the required 30 units may be selected from acceptable courses offered in other related areas, including the College of Education and the Graduate School of Public Health.

A final oral examination on the field of the thesis and its implication in the broad fields of microbiology is required.

Section II. Doctoral Programs

Biology (Cell and Molecular)

(Major Code: 04011) (SIMS Code: 771402)

<http://www.bio.sdsu.edu/cmobi/propsinfo.html>

The cooperating faculties of the Departments of Biology at the University of California, San Diego and at San Diego State University offer a joint doctoral program in biology (cell and molecular). The research interests of the participating faculty members cover a wide range of biological problems.

At SDSU, the major areas of research at the graduate level and the participating faculty members include:

Biological structures: Huxford, Love, Sohl.

Cardiovascular molecular biology: Glembofski, Sussman.

Cell and molecular immunology: McGuire, Tsoukas, van der Geer.

Gene expression: Harris, Stumph, Zeller.

DNA recombination and chromosome structure: Segall.

Microbial molecular ecology: Dinsdale, Edwards (Computer Science), Rohwer.

Molecular biology of viruses and bacteriophage: Feuer,

Kalyuzhnaya, Perrault, Rohwer, Shikuma, Swairjo, Wolkowicz.

Molecular evolution: Kelley, Waters.

Molecular microbiology: Lipson, Maloy.

Neurobiology: Zayas, Zeller.

Stem cell biology: Sussman, Zayas.

Substructure and function in motile cells: Bernstein, Bizzoco.

Program

Undergraduate Preparation for Admission. Applicants for admission to the doctoral program offered jointly by UCSD and SDSU must present evidence of adequate preparation and capacity for advanced work in biology. There are no inflexible requirements for entrance to graduate study in this program, but a strong background in biology, mathematics, chemistry, and physics is recommended. The applicant must have a bachelor's degree or the equivalent from an accredited institution of higher learning with training comparable to that provided by the University of California's and San Diego State University's undergraduate programs. Admission to the program requires acceptance by each institution on recommendation of the participating departments at UCSD and SDSU. It is understood that acceptance of a student into the joint program by each of the departments will be conditioned by their respective standards for graduate admissions and also by available facilities.

Residency Requirements. After formal admission to the joint doctoral program, the student must spend at least one academic year in full-time residence at each of the two campuses. The definition of residence must be in accord with the regulations of the University of California, San Diego, and San Diego State University.

Course Requirements. There is no specific number of courses required for the doctoral program in biology, except a one-year graduate course including genetics, cellular and molecular biology. Prior to taking the qualifying examination, every student is expected to have a firm understanding of modern biological principles. Usually students will be expected to complete a set of at least three laboratory rotations at SDSU. Coursework may be selected from offerings at either UCSD or SDSU.

Qualifying Examinations

Qualifying Committee. The qualifying committee consists of five faculty members, at least two from UCSD (one of whom must be a full-time faculty member in the Biology Department). The dissertation adviser may be a member of the qualifying committee. The members of the qualifying committee will be selected by the student in consultation with the dissertation adviser. In order to provide continuity between examinations, at least one member of the qualifying committee shall be a member of the SDSU Executive Committee. Final appointment of qualifying committee members will be made jointly by the Graduate Deans of SDSU and UCSD.

The qualifying committee will be responsible for carrying out the qualifying examination, and the chair of this committee will report the outcome of the examination and any related academic recommendations to the Executive Committee. The chair will also provide a written evaluation of the student's performance. The chair of the qualifying committee is responsible for notifying the members of the time and place of the examination, and the student is responsible for obtaining all required documents necessary for the examination four weeks before the scheduled examination time.

Qualifying Examination. The examination consists of two parts and will be administered in one or two sessions.

First Part: Oral presentation of dissertation research results and proposed dissertation plan (duration is 40-50 minutes, similar to a formal seminar presentation, slides,

Biology

etc.). The student should come prepared to defend the overall experimental design, including possible outcomes and interpretations, and be thoroughly familiar with the literature in his or her chosen field. A major portion of this examination will be devoted to background information so that a student can demonstrate the context in which the proposed research project lies. A succinctly written version of the proposed dissertation plan (maximum 14 double spaced pages) should be provided to committee members at least two weeks before the presentation. Prior written approval by all SDSU Qualifying Committee members stating that the written dissertation proposal is sufficiently developed must be obtained before the oral presentation takes place.

Second Part: In consultation with the members of the Qualifying Committee, the student will select two subject areas broadly related to the dissertation research. Two members of the Qualifying Committee with expertise in these areas will serve as primary mentors. The student will carry out literature research in each of the topics and select three to four research papers in each area to be discussed during the examination. Each of the papers to be discussed must meet the approval of the two primary mentors. The student will be expected to answer questions on the selected papers, relevant background, and potentially related topics. A major goal of this portion of the examination is to test the student's ability to extract information from the literature, to critically and objectively analyze this information, and to formulate a thorough knowledge base of the subject area.

The qualifying committee may specify a course of study to strengthen any weaknesses identified during the qualifying examination. Upon successful completion of the qualifying examination the student must make application to the office of Graduate Studies at UCSD for advancement to candidacy. Upon payment of the candidacy fee to UCSD, and after approval by the graduate deans on both campuses, the office of Graduate Studies at UCSD will notify the student of advancement to candidacy.

Joint Dissertation Committee. After a student is admitted to candidacy, a dissertation committee consisting of at least five faculty members is nominated by the student in consultation with dissertation adviser and appointed jointly by the Graduate Deans at SDSU and UCSD. The student's dissertation research adviser will be the chair of this committee. At least one member of this committee must be from SDSU and one member must be a full-time UCSD biology faculty member.

Dissertation. Following successful completion of the qualifying examination, the major remaining requirements for the Ph.D. degree will be satisfactory completion of a narrative evaluation at least once per year during a meeting with the adviser and other faculty committee members and a dissertation consisting of original and significant research carried out under the guidance of a faculty member. Requirements currently in force at UCSD and SDSU must be met for completing and filing the dissertation.

Award of the Degree. The Doctor of Philosophy degree in biology will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both institutions.

Financial Support. The Department of Biology at SDSU endeavors to provide adequate support for all students so that full time can be devoted to research, training, and study. During 2017-18, support package included tuition, a stipend (approximately \$26,400-\$27,500), health coverage, and funds for research

supplies. All students are required to obtain teaching experience, which is normally accomplished by appointment as a graduate teaching associate.

Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral program being available for direction of research and as members of joint doctoral committees.

San Diego State University:

Graduate Adviser: R. Zayas.

Faculty: Bernstein, Bizzoco, Dinsdale, Edwards (Computer Science), Feuer, Glembotski, Harris, Huxford (Chemistry and Biochemistry), Kalyuzhnaya, Kelley, Lipson, Love (Chemistry and Biochemistry), Maloy, McGuire, Perrault, Rohwer, Segall, Shikuma, Sohl (Chemistry and Biochemistry), Stumph (Chemistry and Biochemistry), Sussman, Swairjo, (Chemistry and Biochemistry), Tsoukas, van der Geer (Chemistry and Biochemistry), Waters, Wolkowicz, Zayas, Zeller.

University of California, San Diego:

Graduate Adviser: J. Pogliano.

Faculty: Participating UCSD biology faculty

Ecology

(Major Code: 04201) (SIMS Code: 771418)

http://www.bio.sdsu.edu/ecology/prog_phd.php

The cooperating faculties of the Department of Biology, San Diego State University and the Graduate Group in Ecology, University of California, Davis offer a joint program in ecology leading to the Ph.D. The research interests of the participating faculty members cover a wide range of problems and represent the interdisciplinary nature of modern biology.

At SDSU, the research projects are underway concerning:

Coastal and marine ecology: Study of estuarine wetland functions, food webs, effects of natural and human disturbance, and interaction of native and exotic species. Population dynamics of invertebrates and fishes. Community ecology of coral reefs, kelp forests, eelgrass beds, rocky shores, and sandy beaches.

Ecosystem ecology and global change: Effects of global change (elevated CO₂ and climate change) on the structure and functioning of terrestrial and marine ecosystems, including local chaparral, deserts, the Alaskan Arctic and international locations in Baja California including deserts, mangroves, lagoon ecosystems, tropical peatlands of Indonesia, the Mediterranean Basin, and the South Pacific (coastal ecosystems).

Conservation ecology: Application of ecological principles to conserve species, manage populations and genetic diversity, manage fire, and restore disturbed habitats.

A complete list of SDSU faculty and their research interests can be obtained from the graduate adviser of the program.

Program

Undergraduate Preparation for Admission. Applicants for admission to the doctoral program must present evidence of adequate preparation and capacity for advanced work in ecology. Preparation should include a strong background in biology, physics, chemistry, and mathematics. Applicants must have a bachelor's degree from an accredited college or university. Acceptance of a student into the joint program by each institution depends on meeting the standards of admission of the respective institutions and by available facilities for research and instruction.

Residency Requirements. After formal admission to the joint doctoral program, the student must spend at least one academic year in full-time residence on each of the two campuses. The definition of residence must be in accord with the regulations of the University of California, Davis, and San Diego State University.

Advising Committee. The doctoral graduate advisers of the two institutions will establish an advising committee for the student. This committee will consist of three faculty members chosen jointly from the two cooperating institutions. In consultation with the student, the committee will develop the student's course of

study and will establish the student's joint qualifying examination topics. At least one member of the advising committee must be from SDSU and one from UCD.

Course Requirements. Upon arrival at SDSU the advising committee works with the student to develop a course of study, which involves coursework at both SDSU and UCD and core requirements at SDSU (Biology 645 and 745), UCD (three quarters of Ecology 296, two to three Ecology 290) seminars. Prior to taking the qualifying examination, students complete the course of study, including the three quarters at UCD, and develop a firm understanding of ecological principles and research methods. The student is expected to complete the qualifying examination and advance to candidacy within six semesters.

Qualifying Examinations

Qualifying Committee. A five-member committee, composed of appropriate numbers of faculty members from each of the cooperating institutions, will be recommended by the advising committee for each student and approved by the Graduate Deans from each institution. The student's dissertation adviser cannot be a member of the qualifying committee.

The qualifying committee will conduct an oral comprehensive qualifying examination, which will evaluate the student's understanding of modern ecological principles. The examination will focus on principles of ecology, research methods, and three areas related to the major research interest of the student. The purpose of this examination is to permit the student to demonstrate competence not only in the major research field but also in related areas of ecology.

Upon successful completion of the qualifying examination, the student must make application to the Graduate Division at UCD for advancement to candidacy. Upon payment of the candidacy fee to UCD, and after approval by the graduate deans on both campuses, the Graduate Division at UCD will notify the student of advancement to candidacy.

Joint Dissertation Committee. After a student is admitted to candidacy, a dissertation committee consisting of at least three faculty members is nominated by the graduate advisers and appointed jointly by the graduate deans at SDSU and UCD. The student's dissertation research adviser will be the chair of this committee. At least one member of this committee must be from SDSU and one member from UCD.

Dissertation. Following successful completion of the qualifying examination, the major remaining requirements for the Ph.D. degree will be publication of papers as agreed by the dissertation committee, satisfactory completion of a dissertation consisting of original and significant research carried out under the guidance of a faculty member, and presentation of an exit seminar at SDSU. Requirements currently in force at UCD and SDSU must be met for completing and filing the dissertation.

Award of the Degree. The Doctor of Philosophy degree in ecology will be awarded jointly by the Trustees of The California State University and the Regents of the University of California in the names of both institutions.

Financial Support. The Department of Biology at SDSU endeavors to provide adequate support for all students in good standing so that full time can be devoted to research, training, and study. Support includes tuition, a stipend, and funds for research supplies. All students are required to obtain teaching experience, which is normally accomplished by appointment as a graduate teaching associate.

Faculty

Graduate Advisers:

San Diego State University: W. Oechel
University of California, Davis: E. Grosholz

SDSU Faculty: Anderson, Bohonak, Clark, Dinsdale, Edwards, Hentschel, Hovel, Lai, Lewison, Lipson, Long, Oechel, Reeder, Xu, Zona

Evolutionary Biology

(Major Code: 04016) (SIMS Code: 771485)

<http://www.bio.sdsu.edu/eb/jdeb.html>

The cooperating faculties of the Department of Biology, San Diego State University (SDSU) and the Graduate program in Evolution, Ecology, and Organismal Biology (EEOG) at the University of California, Riverside (UCR) offer a joint program in evolutionary biology leading to the Ph.D. The research interests of the participating faculty cover a wide range of topics in evolutionary biology.

Program

Undergraduate Preparation for Admission. Applicants for admission to the doctoral program must present evidence of adequate preparation and capacity for advanced work in evolutionary biology. Preparation should include a strong background in biology. Applicants must have a bachelor's degree from an accredited college or university. Acceptance of a student into the joint program by each institution depends on meeting the standards of admission of the respective institutions and by available facilities for research and instruction.

Residency Requirements. After formal admission to the joint doctoral program, the student must spend at least one academic year in full time residence on each of the two campuses. The definition of residence must be in accord with the regulations of the University of California, Riverside, and San Diego State University.

Advising Committee. At the start of the student's first year in the program, the student will form a Guidance Committee. This committee will consist of four faculty members, two chosen from each institution. From SDSU, the committee must include the student's prospective dissertation adviser and an additional, programmatically appropriate, member. From UCR, the committee members will be drawn from faculty within the EEOB graduate program. In consultation with the student, the Guidance Committee plans the student's program through Advancement to Candidacy.

Course Requirements. The Guidance Committee works with the student to develop an individualized course of study and identify potential deficiencies. Students in the joint doctoral program will have similar requirements as students in UCR's EEOB graduate program. Specifically, the joint doctoral students will take the Theory of Evolution (UCR BIOL 216) and at least two disciplinary courses (see below; the two required disciplinary courses must cover different disciplines; at least one disciplinary course must be taken at UCR). In addition, the students will enroll in a current research topics seminar course during each UCR quarter or SDSU semester of residence. The majority of required course work should be completed prior to the Written Qualifying Examination, which is taken at the end of the second year. All required disciplinary courses (see below) must be completed before taking the Oral Qualifying Examination. An example of the required coursework and anticipated schedule for completion is presented below:

Year One at SDSU

Each semester:	Units
BIOL 795 Seminar in Ecology and Evolutionary Biology	3 (Cr/NC)

At least one of the following courses:

BIOL 624 Population Genetics	3
BIOL 740 Phylogenetic Systematics	3

Year Two at UCR

UCR BIOL 216 The Theory of Evolution	
Each quarter of residence:	
UCR BIOL 252 General Colloquium in Biology (or another disciplinary colloquium)	
UCR BIOL 265 Advances in Population and Evolutionary Biology	

At least one of the following courses:

UCR BIOL 211 Ecology: Genes to Ecosystems	
UCR BIOL 212 Ecological Systems in Space and Time	
UCR BIOL 213 Behavioral Ecology	
UCR BIOL 214 Evolutionary Genetics	
UCR BIOL 217 Population and Community Ecology	
UCR BIOL 219 Theory of Systematics	
UCR BIOL 220 Evolutionary Physiology	

Biology

Qualifying Examinations

Qualifying Committee. By the end of the second year, students are expected to have taken a written qualifying examination. The written examination is evaluated by an ad hoc committee of faculty participating in the JDPEB program. The committee will have a minimum of four faculty, at least two from SDSU EB and two from UCR EEOB. Upon passing the written examination, the student (in consultation with their SDSU and UCR co-advisers) selects an Oral Examination Committee. This committee normally consists of five faculty members: a minimum of two SDSU EB faculty and a minimum of two UCR EEOB faculty, and a UCR outside committee member. The student writes a detailed research proposal and schedules an oral examination. During the examination, the candidate must defend the research proposal and may be questioned on other topics by the Oral Examination Committee.

Joint Dissertation Committee. After passing the Written and Oral Examinations, students file for Advancement to Candidacy with the Graduate Divisions at SDSU and UCR. On the petition, students state the dissertation topic and selects the members of the Dissertation Committee, to be approved by the Graduate Division. This committee will consist of at least four faculty members, including the major adviser. At least two members must be from at least two members must be from the evolutionary biology faculty of SDSU and the EEOB faculty of UCR (with approval from the Graduate Division at UCR).

Dissertation. Following successful completion of the qualifying examination, the final requirement of the Ph. D. degree will be satisfactory completion of a dissertation consisting of original and significant research carried out under the guidance of the joint dissertation committee. Requirements currently in force at SDSU and UCR must be met for completing and filing the dissertation.

Award of the Degree. The Doctor of Philosophy degree in Evolutionary Biology will be awarded jointly by the Regents of the University of California and the Trustees of the California State University in the names of both institutions.

Financial Support. The Department of Biology at SDSU endeavors to provide adequate support for all students so that full time can be devoted to research training and study. Support includes tuition, a stipend, and funds for research supplies. All students are required to obtain teaching experience, which is normally accomplished by appointment as graduate teaching associate.

Faculty

Graduate Advisers:

San Diego State University: E. Waters
University of California, Riverside: T. Higham
SDSU Faculty: Bohonak, Burns, Clark, Flores Renteria, Hedin, Kelley, Reeder, Renner, Rohwer, Waters, Zayas, Zeller.

Courses Acceptable for Master's and Doctoral Degree Programs in Biology (BIOL)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

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 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 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 203, 203L, 204, 204L 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.

Prerequisites: Biology 203, 203L, 204, 204L. Strongly recommended: Completion of three to six upper division units in the major.

Structure and function, ecology, behavior, physiology and phylogenetic relationships of marine invertebrate animals.

BIOL 516A. Marine Larval Ecology Research Part 1 (4)

Three lectures and three hours of laboratory.

Prerequisites: Biology 203, 203L, 204, 204L, 215.

Biology of marine invertebrate larvae. Biodiversity, evolution of complex life cycles, larval culture techniques, physiological and ecological consequences of environmental variability during larval development. Designing and peer reviewing original research proposals related to larval ecology.

BIOL 516B. Marine Larval Ecology Research Part 2 (4)

Three lectures and three hours of laboratory.

Prerequisites: Biology 516A and consent of instructor.

Research experience investigating marine invertebrate larval ecology.

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 518. Biology of Fishes (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 354.

Ecology, anatomy, physiology, evolution, taxonomy, environmental constraints, habitats, feeding, behavior, growth, reproduction, biotic interactions, population dynamics, and assemblage structure. Fisheries biology concepts to include stock-recruitment models, density dependence and population regulation, management of fisheries, and conservation. Not open to students with credit in Biology 520 and 541.

BIOL 523. Herpetology (4)

Two lectures and six hours of laboratory.

Prerequisites: Biology 203, 203L, 204, 204L. 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.

Prerequisites: Biology 203, 203L, 204, 204L. 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.

Prerequisites: Biology 203, 203L, 204, 204L. 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.

Prerequisites: Biology 203, 203L, 204, 204L. 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 527. Animal Behavior (3)

Prerequisites: Biology 203, 203L, 204, 204L, 215; Psychology 211 and 260 for psychology majors.

Biological bases of animal behavior with emphasis on ethological approach, including evolution and adaptive significance of behavior.

BIOL 527L. Animal Behavior Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 527.

Animal behavior with emphasis on ethological approach to include evolution and adaptive significance of behavior, data collection and analysis, scientific writing and results.

BIOL 528. Microbial Ecology (3)

Two lectures and three hours of laboratory.

Prerequisites: Biology 203, 203L, 204, 204L. Recommended: Biology 350 and 354.

Roles of microorganisms in soil, aquatic and marine ecosystems, microbial adaptations to the environment, and interactions within microbial communities and between microbes and multicellular organisms. Laboratory techniques to isolate and study microbes.

BIOL 530. Plant Systematics (4)

Two lectures and six hours of laboratory, field trips.

Prerequisites: Biology 203, 203L, 204, 204L. Strongly recommended: Completion of three to six upper division units in the major.

Plant description, identification, classification, and nomenclature with emphasis on evolutionary patterns, interdisciplinary data acquisition, and phylogenetic analysis.

BIOL 531. Taxonomy of California Plants (4)

Two lectures and six hours of laboratory.

Prerequisites: Biology 203, 203L, 204, 204L.

Fundamentals of plant taxonomy with emphasis on identification of plants native and naturalized to California. Plant collecting techniques. Field trips are required.

BIOL 535. Plant Ecology (4)

Three lectures and three hours of laboratory.

Prerequisites: Biology 203, 203L, 204, 204L. Strongly recommended: Biology 354.

Plant adaptation and response to living and non-living environment including aspects of plant evolution, demography, ecophysiology community and ecosystem dynamics and soil-plant relationships. Terrestrial systems emphasized.

BIOL 538. Environmental Policy and Regulations (3)

(Same course as Environmental Science 538)

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 542. Ecological Signaling in the Environment (3)

Prerequisites: Biology 354 and Chemistry 201.

Ecological consequences of species interactions mediated by signals in terrestrial and aquatic ecosystems. Evaluating primary literature and conveying science to a broad audience.

BIOL 544. Terrestrial Ecosystems and Climate Change (3)

(Same course as Environmental Science 544)

Prerequisite: Biology 354.

Controls on fluxes and stocks of nutrients within terrestrial ecosystems, ecosystem responses, feedbacks to climate change. Climate systems, water transport, production and decomposition, nutrient cycling, stable isotopes, spatial and temporal integration.

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 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 556. Scanning Electron Microscopy Laboratory (2)

Six hours of laboratory.

Prerequisites: Biology 204, 204L, and Physics 180B.

Biological specimen preparation and operation of scanning electron microscope.

BIOL 557. Transmission Electron Microscopy Laboratory (3)

One lecture and six hours of laboratory.

Prerequisites: Biology 204, 204L, and Physics 180B.

Biological sample preparation and operation of transmission electron microscope.

BIOL 560. Animal Physiology (3)

Prerequisites: Biology 203, 203L, 204, 204L; 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 562. Ecological Metagenomics (3)

Two lectures and three hours of laboratory.

Prerequisites: Credit or concurrent registration in Biology 354 and 366.

Next generation DNA sequencing technology with emphasis on ecological applications in microbial communities. Metagenomic analysis of taxonomic identification, physiological function, and the ecological role of the microbial community in the broader ecosystem.

BIOL 567. Advanced Biochemistry, Cellular, and Molecular Biology (4)

Prerequisites: Biology 366 and Chemistry 365.

Advanced concepts of cellular biology, molecular biology, and biochemistry.

BIOL 567L. Biochemistry, Cellular, and Molecular Biology Laboratory II (2)

Six hours of laboratory.

Prerequisites: Biology 366 and 366L. Recommended: Biology 350.

Intermediate laboratory approaches to biochemistry, cellular biology, and molecular biology at a level appropriate for both advanced undergraduate and graduate students.

BIOL 568. Bioinformatics (3)

(Same course as Bioinformatics and Medical Informatics 568)

Two lectures and three hours of laboratory.

Prerequisite: Biology 366.

Bioinformatics analysis methods and programming skills. Practical bioinformatic software for sequence analysis, bioinformatic algorithms and programming fundamentals.

BIOL 570. Neurobiology (3)

Prerequisite: Biology 366 or 590 or Psychology 360 for psychology majors.

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.

Biology

BIOL 575. Molecular Basis of Heart Disease (3)

Prerequisite: Biology 366 or 590.

Current literature on the molecular basis of disordered physiology leading to heart disease.

BIOL 576. Developmental Biology (3)

Prerequisite: Biology 366. Strongly recommended: Biology 567.

Fundamental processes of development from fertilized egg to organism. Emphasis on cellular and molecular mechanisms common to development of metazoan organisms.

BIOL 584. Medical Microbiology (3)

Prerequisites: Biology 350 and 366.

Major bacterial and viral pathogens; molecular mechanisms of pathogenesis, microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics.

BIOL 585. Cellular and Molecular Immunology (3)

Prerequisite: Biology 366. Recommended: Credit or concurrent registration in Biology 567 and 567L.

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 589. Stem Cell and Regenerative Biology (3)

Prerequisites: Biology 366 and credit or concurrent registration in Biology 366L.

Stem cell basics, cloning, tissue engineering, research on animal models of regeneration, political and ethical issues surrounding stem cell debate.

BIOL 590. Physiology of Human Systems (4)

Three lectures and one hour of discussion.

Prerequisites: Biology 366, Chemistry 365, Physics 180B, 182B.

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 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

BIOL 597A. Univariate Statistical Methods in Biology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 352 or 354 or 366.

Application of univariate statistical techniques in biological sciences.

GRADUATE COURSES

BIOL 600. Seminar (1-3)

Prerequisite: Consent of instructor.

An intensive study in advanced biology. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

BIOL 606. Biological Data (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 597A or equivalent graduate course in biostatistics.

Concepts and applications of advanced statistical techniques in the biological sciences to include multivariate statistics, analysis of discrete data, spatial statistics, time series analysis, and Monte Carlo methods (e.g. bootstrapping and randomization tests).

BIOL 624. Population Genetics (3)

Two lectures and two hours of activity.

Prerequisite: Biology 352.

Theoretical and applied population genetics to include genetic diversity in natural populations, random drift, mutation, gene flow, natural selection, nucleotide variation, and quantitative genetics. Emphasis on data analysis and interpretation.

BIOL 645. Theory and Principles of Ecology I (3)

Prerequisites: Admission to graduate program in biology and approval of ecology graduate adviser.

Major theoretical concepts in ecology, topics of current interest, and historical context of central ideas in ecology, with emphasis on use of primary literature.

BIOL 677. Seminar in Marine Conservation Biology (3)

Prerequisite: Graduate standing.

Threats to marine biodiversity and marine populations.

BIOL 688. Seminar in Terrestrial Ecology (2)

Prerequisite: Biology 354.

Ecological concepts as applied to the terrestrial environment. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units applicable to a master's degree.

BIOL 696. Advanced Topics in Biology (1-3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of biology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

BIOL 725. Clinical Anatomy I (4)

(Same course as Doctor of Physical Therapy 725)

Three lectures and three hours of laboratory.

Prerequisite: Admission to the DPT program.

Applied anatomy of upper and lower extremities of the human body; joint anatomy and mechanics, anatomical structures to produce articular movement to include muscles, arterial, peripheral nervous systems, and articular and extremity movement patterns.

BIOL 726. Clinical Anatomy II (4)

(Same course as Doctor of Physical Therapy 726)

Three lectures and three hours of laboratory.

Prerequisite: Biology 725 [or Doctor of Physical Therapy 725].

Axial portion of the human body; biomechanics of the spinal column to include head and neck, thorax, related viscera, and abdomino-pelvic region.

BIOL 740. Phylogenetic Systematics (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Theory and methodology of phylogenetic systematics. Includes use of computer algorithms, survey of literature and preparation of a project in phylogenetic systematics. Not open to students with credit in Biology 740 (Seminar in Phylogenetic Systematics).

BIOL 745. Theory and Principles of Ecology II (3)

Prerequisites: Admission to graduate program in biology and Biology 645.

Community and ecosystem ecology to include foodwebs, landscapes, ecosystems, biogeochemistry. Conservation and applied ecology to include climate change, anthropogenic impacts on natural systems.

BIOL 770. Seminar in Systematics and Evolution (2-3)

Prerequisite: Consent of instructor.

Selected topics in systematics and evolution. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units applicable to a master's degree.

BIOL 795. Seminar in Ecology and Evolutionary Biology (1) Cr/NC

Prerequisite: Graduate standing.

Recent research advances in ecology and evolutionary biology. May be repeated with new content. Maximum credit six units applicable to a graduate degree.

BIOL 797. Research (1-3) Cr/NC/RP

Research in one of the fields of biology. Maximum credit six units of 797 and 798 applicable to a master's degree.

BIOL 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units of 797 and 798 applicable to a master's degree.

BIOL 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

BIOL 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

DOCTORAL COURSES**BIOL 897. Doctoral Research (1-15) Cr/NC/RP**

Prerequisite: Admission to the doctoral program.

Independent investigation in the general field of the dissertation.

BIOL 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the student plans to graduate.



Molecular Biology

Faculty

Greg L. Harris, Ph.D., Professor of Biology
(Molecular Biology Institute Director)

Sanford I. Bernstein, Ph.D., Albert W. Johnson Distinguished
Professor of Biology, Emeritus

Kelly S. Doran, Ph.D., Professor of Biology
(Graduate Adviser, Molecular Biology)

Christopher C. Glembotski, Ph.D., Professor of Biology

Tom Huxford, Ph.D., Professor of Chemistry and Biochemistry

Scott T. Kelley, Ph.D., Professor of Biology

Stanley R. Maloy, Ph.D., Professor of Biology and
Associate Vice President for Research and Innovation in
Graduate and Research Affairs

Kathleen L. McGuire, Ph.D., Professor of Biology

Penelope J.E. (Jenny) Quintana, Ph.D., Professor of Public Health

Forest L. Rohwer, Ph.D., Professor of Biology

Anca Mara Segall, Ph.D., Professor of Biology

Mark A. Sussman, Ph.D., Albert W. Johnson Distinguished
Professor of Biology

Elizabeth R. Waters, Ph.D., Professor of Biology

Roland Wolkowicz, Ph.D., Professor of Biology

Robert W. Zeller, Ph.D., Professor of Biology
(Graduate Adviser, M.A./M.S. Programs)

Ralph Feuer, Ph.D., Associate Professor of Biology

John J. Love, Ph.D., Associate Professor of Chemistry and
Biochemistry

Peter van der Geer, Ph.D., Associate Professor of Chemistry and
Biochemistry

Ricardo Zayas, Ph.D., Associate Professor of Biology

Adjunct Faculty

Piero Anversa, M.D., Harvard Medical School

Jeremy Barr, Ph.D., San Diego State University

Michael Buchmeier, Ph.D., University of California, Irvine

Alex Burgin, Ph.D., Emerald Biostructures

Maurizio C. Capogrossi, M.D., L'Istituto Dermopatico
dell'Immacolata (IDI - IRCCS)

Karen Clingerman, D.V.M., The Scripps Research Institute

Thomas Cujec, Ph.D., Eli Lilly

Adrienne Dubin, Ph.D., The Scripps Research Institute

Kim Finley, Ph.D., SDSU Donald P. Shiley BioScience Center

Roger Allyn Forsyth, Ph.D., San Diego State University

Natalie Gude, Ph.D., San Diego State University

Deron Herr, Ph.D., National University of Singapore

Valentine Lance, Ph.D., San Diego State University

Phyllis-Jean Linton, Ph.D., SDSU Donald P. Shiley BioScience
Center

Patrick McDonough, Ph.D., Vala Sciences, Inc.

Aram Megighian, Ph.D., University of Padova

Girish Melkani, Ph.D., San Diego State University

John Mokili, Ph.D., San Diego State University

Brett Monia, Ph.D., Isis Pharmaceuticals, Inc.

James W. Neel, Ph.D., San Diego State University

Kent Osborn, Ph.D., San Diego State University

Joy A. Phillips, Ph.D., SDSU Donald P. Shiley BioScience Center

Clemencia Pinilla, Ph.D., Torrey Pines Research Institute

Harry H. Plymale, D.V.M., San Diego State University

Coralie Poizat, Ph.D., King Faisal Specialist Hospital & Research
Centre in Riyadh

Moselio Schaechter, Ph.D., San Diego State University/University
of California, San Diego

Marilyn Thoman, Ph.D., SDSU Donald P. Shiley BioScience Center

John D. Trawick, Ph.D., San Diego State Institute

Mirko Volkers, M.D., San Diego State University

Gregor Zlokarnik, Ph.D., Vertex Pharmaceuticals

General Information

The Molecular Biology Institute (MBI) administers the Master of Arts and Master of Science degrees in biology with a concentration in molecular biology. The MBI is currently composed of members from the Departments of Biology, Chemistry and Biochemistry, and the Graduate School of Public Health, and is designed to serve these departments in the coordination, support, and enhancement of research and training in the molecular biological sciences. See Biology in this section of the bulletin for information on how to apply.

Graduate teaching associateships in biology and chemistry are available to qualified students. Application blanks and additional information may be obtained from the graduate coordinator of biology and are also available at <http://www.bio.sdsu.edu>.

Admission to Graduate Study

Candidates for admission may come from a variety of disciplines in the biological and physical sciences. Ultimately, the research programs of individuals wishing to pursue master's degree work in molecular biology will be carried out under the supervision of MBI members.

In addition to the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin, a student must satisfy the following admission requirements before being recommended for admission.

1. Possess a bachelor's degree with a major in a biological or physical science equivalent to that offered at San Diego State University.
2. Have a grade point average of 2.85 or better in work taken for the baccalaureate degree.
3. Meet biology departmental expectations on the GRE General Test.
4. Supply two letters of reference that describe the applicant's potential for graduate work.

Students who do not meet all of the above requirements for admission may be admitted with conditionally classified graduate standing upon the recommendation of the MBI faculty. Students so admitted will be advised as to the nature of their deficiency and the time allowed to achieve full classified graduate standing.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, including the foreign language requirement for the master of arts degree, as stated in Part Four of this bulletin. Satisfactory progress on the thesis research will be prerequisite to obtaining departmental approval for advancement.

Specific Requirements for the Master of Arts or Master of Science Degree

(Major Code: 04161) (SIMS Code: M.A. 771459; M.S. 771458)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of 30 units of 500-level and above courses selected, with the approval of the MBI graduate adviser. A list of suggested courses is presented on the following page. All students entering the Master of Science program in molecular biology will be required to take an advanced course in molecular biology. At least 15 units of the courses selected must be in 600- and 700-numbered courses including 799A, Thesis. The student must complete at least three units of Molecular Biology 601 and six units of Molecular Biology 610. With the approval of the graduate adviser of molecular biology, a student may substitute for Molecular Biology 610 another 600- or 700- numbered course. A final oral examination on the thesis will be administered by the thesis committee.

Courses Acceptable for the Concentration in Molecular Biology (M BIO)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

Biology (BIOL)

BIOL 510	Molecular Evolution.....	3
BIOL 549	Microbial Genetics and Physiology.....	3
BIOL 554	Molecular Virology.....	3
BIOL 556	Scanning Electron Microscopy Laboratory.....	2
BIOL 557	Transmission Electron Microscopy Laboratory.....	3
BIOL 567	Advanced Biochemistry, Cellular, and Molecular Biology.....	4
BIOL 568/ BIOMI 568	Bioinformatics.....	3
BIOL 570	Neurobiology.....	3
BIOL 575	Molecular Basis of Heart Disease.....	3
BIOL 576	Developmental Biology.....	3
BIOL 584	Medical Microbiology.....	3
BIOL 585	Cellular and Molecular Immunology.....	3
BIOL 590	Physiology of Human Systems.....	4
BIOL 596	Special Topics in Biology.....	1-4
BIOL 597A	Univariate Statistical Methods in Biology.....	3

Chemistry (CHEM)

CHEM 510	Advanced Physical Chemistry.....	3
CHEM 550	Instrumental Methods of Chemical Analysis.....	2
CHEM 560	General Biochemistry.....	3
CHEM 562	Intermediary Metabolism.....	2
CHEM 563	Nucleic Acid Function and Protein Synthesis.....	2
CHEM 564	Receptor Biochemistry and Protein Modification.....	2
CHEM 567	Biochemistry Laboratory.....	3
CHEM 596	Advanced Special Topics in Chemistry.....	1-3

GRADUATE COURSES

Biology (BIOL)

BIOL 600	Seminar.....	1-3
BIOL 696	Advanced Topics in Biology.....	1-3
BIOL 797	Research.....	1-3 (Cr/NC/RP)
BIOL 798	Special Study.....	1-3 (Cr/NC/RP)

Chemistry (CHEM)

CHEM 712	Chemical Kinetics.....	3
CHEM 751	Separations Science.....	3
CHEM 763	Cellular Regulation.....	2
CHEM 790	Seminar.....	1-3
CHEM 791	Research Seminar.....	1
CHEM 792	Bibliography.....	1
CHEM 797	Research.....	1-3 (Cr/NC/RP)
CHEM 798	Special Study.....	1-3 (Cr/NC/RP)

GRADUATE COURSES

M BIO 600. Seminar in Molecular Biology (1-3)

Prerequisite: Consent of instructor.

Evaluation of current literature in molecular biology. May be repeated with new content. Maximum credit six units applicable to a master's degree.

M BIO 601. Colloquium in Molecular Biology Research (1) Cr/NC/RP

Recent research advances in selected areas of modern molecular biology presented by faculty of the Molecular Biology Institute and established outside investigators. May be repeated with new content. Open only to students admitted to the molecular biology program or by permission of the graduate adviser for molecular biology. Maximum credit six units, three of which are applicable to a master's degree.

M BIO 610. Advanced Topics in Molecular and Cell Biology (1-4)

Prerequisite: Graduate standing in a life or physical science.

Intensive study in specific areas of molecular and cell biology. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

Biostatistics and Biometry

IN THE COLLEGE OF SCIENCES AND THE
COLLEGE OF HEALTH AND HUMAN SERVICES

Faculty Committee for Biostatistics and Biometry

Douglas H. Deutschman, Ph.D., Professor of Biology
Juanjuan Fan, Ph.D., Professor of Statistics
Richard A. Levine, Ph.D., Professor of Statistics
Kung-Jong Lui, Ph.D., Professor of Statistics
John E. Alcaraz, Ph.D., Associate Professor of Public Health
Barbara Ann Bailey, Ph.D., Associate Professor of Statistics
Jianwei Chen, Ph.D., Associate Professor of Statistics
Chii-Dean Lin, Ph.D., Associate Professor of Statistics
Xialu Liu, Ph.D., Assistant Professor of Management Information Systems
Jorge C. Román, Ph.D., Assistant Professor of Statistics
Mingan Yang, Ph.D., Assistant Professor of Public Health

General Information

San Diego State University provides preparation for biostatistically oriented careers by offering biostatistics related coursework, research opportunities and biostatistical consulting experience within regular degree programs in the Departments of Biology, Mathematics and Statistics, and the Graduate School of Public Health. A Master of Science degree in statistics with concentration in biostatistics may be earned in the Department of Mathematics and Statistics; and a Master of Public Health degree with concentration in biometry may be earned in the Graduate School of Public Health. Degrees in general biostatistics or biometry are not offered by the university. However, a Master of Science degree in biostatistics or biometry may be earned in Interdisciplinary Studies (see the appropriate section in this bulletin).

Specific courses in biostatistics and biometry (listed below) are offered with the cooperation of faculty from the participating departments. Biostatistics and biometry courses that specialize in applications to biology are offered in the Department of Biology; similarly, courses that specialize in applications to public health are offered in the Graduate School of Public Health. Courses that cover a variety of areas of application (including biology and public health) are offered by the Department of Mathematics and Statistics. In addition to these applied courses, the Department of Mathematics and Statistics offers some courses in statistics and biostatistics that are more mathematically oriented.

Courses Acceptable for Biostatistics and Biometry

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Biology (BIOL)

(Adviser: Douglas H. Deutschman, Ph.D., 619-594-5391)

BIOL 597A	Univariate Statistical Methods in Biology	3
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Public Health (P H)

(Adviser: Mingan Yang, Ph.D., 619-594-3454)

P H 602	Biostatistics	3
P H 627	Advanced Statistical Methods in Public Health	3
P H 628	Applications of Multivariate Statistics in Public Health	3

Statistics (STAT)

(Adviser: Kung-Jong Lui, Ph.D., 619-594-7239)

STAT 520	Applied Multivariate Analysis	3
STAT 550	Applied Probability	3
STAT 551A	Probability and Mathematical Statistics	3
STAT 551B	Probability and Mathematical Statistics	3
STAT 560	Sample Surveys	3
STAT 580	Statistical Computing	3
STAT 670A-670B	Advanced Mathematical Statistics	3-3
STAT 672	Nonparametric Statistics	3
STAT 676	Bayesian Statistics	3
STAT 677	Design of Experiments	3
STAT 678	Survival Analysis	3
STAT 680A-680B	Advanced Biostatistical Methods	3-3

Business Administration

ACCREDITED BY AACSB INTERNATIONAL—THE ASSOCIATION TO ADVANCE COLLEGIATE SCHOOLS OF BUSINESS

OFFICE: Education and Business Administration 448

TELEPHONE: 619-594-5828

E-MAIL: gradbus@sdsu.edu

WEBSITE: <https://business.sdsu.edu/grad>

Associateships

Graduate teaching associateships and graduate nonteaching associateships in business administration are available to a limited number of qualified students. The graduate degree may also prepare students for a teaching career. Applications and additional information may be secured from the departmental offices of the Fowler College of Business.

General Information

The Fowler College of Business offers graduate study leading to the Master of Business Administration degree, Master of Science degree in Business Administration, Master of Science degree in Accountancy, and Master of Science degree in Information Systems. The college also offers a concurrent program with the College of Arts and Letters leading to both a Master of Business Administration and a Master of Arts in Latin American Studies and a concurrent program with California Western School of Law or Thomas Jefferson School of Law leading to a Master of Business Administration degree and Juris Doctor degree. The Fowler College of Business M.B.A. and M.S. programs are accredited by AACSB International—The Association to Advance Collegiate Schools of Business.

The major goal of the Master of Business Administration degree is to prepare students with diverse academic backgrounds for entry into general management positions in business and not-for-profit enterprises. The primary purpose of the Master of Science degree in Business Administration is to provide a foundation for technical and executive careers in the management of specific functional and professional areas.

The objective of the Master of Science degree in Accountancy is to prepare students for careers as professional accountants in financial institutions, government, industry, nonprofit organizations, and public practice. The basic conceptual knowledge of accounting and business can be obtained through an undergraduate degree or by otherwise meeting the prerequisites for the M.S. degree in Accountancy. The program offers the opportunity for greater depth of education by allowing students to concentrate their education in courses of specialized study in accounting.

Close contacts with large and small firms, both local and national, enhance the business student's education. The generous cooperation of local business and government organizations provides opportunities for research and field study for graduate students. The continued professionalization of the business executives' responsibilities has created many opportunities for the student with an advanced degree in business administration.

All students considering graduate work in business are advised to seek further details from the Graduate Programs Office in the Fowler College of Business, 619-594-8073, prior to applying for admission.

Admission to Graduate Study

Admission to the college's graduate programs is competitive. A number of factors are taken into consideration in the admission decision, and only the top applicants are accepted. These factors include the applicant's previous academic performance, the quality of the previous universities attended, the field of undergraduate study, scores on the Graduate Management Admissions Test (GMAT) or the Graduate Record Examination (GRE), management experience, and the written application essay. References which validate experience will also be considered.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Graduate Programs Office in the Fowler College of Business.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GMAT scores (<http://www.mba.com> SDSU institution code 9LT-2P-73) or GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org/> SDSU institution code 4682).

Master of Business Administration Degree

Master of Business Administration Degree and Juris Doctor Degree

Master of Business Administration Degree and Master of Arts Degree in Latin American Studies

Master of Science in Business Administration

Master of Science in Accountancy

Master of Science in Information Systems

The following materials must be submitted electronically. Submission instructions available at <http://www.sdsu.edu/graduatebusiness>.

1. Personal statement;
2. Curriculum vitae or resume;
3. Letters of reference (two required; maximum of three).

Master of Business Administration Degree for Executives

The following materials should be mailed or delivered to:

Fowler College of Business Executive and Specialized Programs

San Diego State University
5500 Campanile Drive
San Diego, CA 92182-8232

1. Two sets of official transcripts (in sealed envelopes);
2. Two letters of recommendation (forms are available on the website);
3. A one-page statement of career objectives;
4. Curriculum vitae or resume.

Complete directions are included in the MBA for Executives program application packet. Call 619-594-6010 or <http://www.sdsu.edu/emba>.

Master of Business Administration Degree

Admission to the Degree Curriculum

Regulations governing admission to the university and to the Fowler College of Business are outlined above and in Part Two of this bulletin.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Business Administration Degree

(Major Code: 05011) (SIMS Code: 221702)

The student must complete an approved program of 39 to 45 units of graduate coursework. Up to six units of 500-level courses may be included in the program.

Up to 12 units of coursework completed at an accredited AACSB institution or with the approval of the director of graduate programs may be accepted for transfer credit.

Students entering the program should have completed coursework in basic statistics and macro- and micro-economics. They should be proficient in college-level mathematics including algebra and in the use of spreadsheets.

The requirements for the degree are as follows:

- Complete the following core of seven courses. (21 units)

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership	3
B A 625	Financial and Management Accounting.....	3
B A 626	Business Economics	3
B A 627	Marketing.....	3
B A 628	Operations and Supply Chain Management.....	3
B A 629	Financial Management.....	3

Subject to a limit of two courses, the requirement to complete individual core courses Business Administration 623-629 may be waived by the director of graduate business programs under special circumstances. Waivers are determined by evaluating prior course content, institution at which courses were taken, grades received, and time since courses were taken.

- B A 630 Business Strategy.....3
- Complete 18 units of electives. Not more than 12 units outside the Fowler College of Business and not more than a total of six units in courses 780 (Field Studies in Business), 797 (Research), and 798 (Special Study), will be accepted toward the degree. Courses taken outside of the Fowler College of Business should be related to the M.B.A. program and must be approved by the director of graduate business programs.
- Complete a culminating experience course. (3 units)

B A 795	Business Consulting.....	3
B A 796	Integrative Business Analysis.....	3
B A 799A	Thesis.....	3 (Cr/NC/RP)

A student may choose to specialize by completing 12 units of elective courses from one of the following specializations:

Specializations	Major Code	SIMS Code
Accountancy	05021	221908
Entrepreneurship	05997	222361
Finance	05041	222117
Health Services Administration	05011	221710
Information Systems	07021	222338
International Business	05131	223651
Management	05061	222561
Marketing	05091	222773
Project Management	05011	221719
Real Estate	05111	222194
Supply Chain Management	05064	222381

Full and Half-Time Programs

Students enrolling in the M.B.A. program may be either full- or part-time students. Generally, in their first year, full-time students take twelve credit units at a time and part-time students take six credit units at a time. During the first year, students will be assigned to a cohort and complete certain required courses together.

Master of Business Administration Sports Business Management

(Offered only through the College of Extended Studies)

Admission to the Degree Curriculum

Regulations governing admission to the university and to the Fowler College of Business are outlined above and in Part Two of this bulletin.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Business Administration Degree for Sport Business Management (Major Code: 05011) (SIMS Code: 221715)

The Master of Business Administration for Sports Business Management is operated by Executive and Specialized Programs in the Fowler College of Business and is an alternative path for the Master of Business Administration degree. Students accepted for the M.B.A. Sports Business Management program are fully matriculated in the university and meet all university requirements as established by the Graduate Council.

The M.B.A. Sports Business Management program is an intensive, full-time, 45-unit program with classroom work beginning in January and continuing until December, including summer, followed by a four- to six-month internship.

The fee structure is unique to the program and unrelated to the San Diego State University fee schedule. Students should contact the program office for a program calendar, *Class Schedule*, and fee summary.

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, students must complete an approved program of study containing 45 units of 600- and 700-numbered courses. These courses will be offered in a predetermined pattern. No transfer courses and no substitute courses are accepted. The official programs of all students in any one cycle are identical. Advancement to candidacy requires completion of at least 24 units of coursework listed on the official program of study with a 3.0 (B) minimum grade point average.

The requirements are as follows:

- Complete the following core of seven courses. (21 units)

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership	3
B A 625	Financial and Management Accounting.....	3
B A 626	Business Economics	3
B A 627	Marketing.....	3
B A 628	Operations and Supply Chain Management.....	3
B A 629	Financial Management.....	3
- B A 630 Business Strategy.....3
- Complete an additional 15 units of pre-determined courses related to the business of sports.
- B A 780 Field Studies in Business 1-3
(Three units are required for completion of degree.)
- B A 795 Business Consulting3

Master of Business Administration for Executives

(Offered only through the College of Extended Studies)

Admission to the Degree Curriculum

In addition to meeting the criteria for admission to the university, as well as those listed under "Admission to the Graduate Program in the Fowler College of Business," applicants must also demonstrate that they have had significant experience in management-level positions in business, government, or not-for-profit organizations.

Specific Requirements for the M.B.A. Degree for Executives

(Major Code: 05011) (SIMS Code: 221705)

The Master of Business Administration for Executives is operated by Executive and Specialized Programs in the Fowler College of Business and is an alternative path for the Master of Business Administration degree. The program is designed especially to meet the needs of mid-career executives. Students in the program have an average of 15 years of full-time professional work experience and eight years of managerial or equivalent experience, and bring a wealth of practical knowledge to the classroom discussion.

Students accepted for the M.B.A. for Executives concentration are fully matriculated in the university and meet all university requirements as established by the Graduate Council.

All courses are scheduled in a modular fashion on alternate Fridays and Saturdays over a 24-month period for the convenience of working executives.

The fee structure is unique to the program and unrelated to the San Diego State University fee schedule. Students should contact the program office for a program calendar, *Class Schedule*, and fee summary.

In addition to meeting the requirements for classified graduate standing, and the basic requirements for the master's degree as described in Part Four of this bulletin, students must complete an approved program of study containing 48 units of 600- and 700-numbered courses. These courses will be offered in a predetermined pattern. No transfer courses and no substitute courses are accepted.

The official programs of all students in any one cycle are identical. Advancement to candidacy requires completion of at least 24 units of coursework listed on the official program of study with a 3.0 (B) minimum grade point average.

MBA for Executives

B A 601	Organizational Behavior for Executives.....	3
B A 602	Statistics for Business Decisions.....	3
B A 603	Executive Financial Accounting.....	2
B A 604	Executive Managerial Accounting.....	2
B A 605	Managerial Marketing.....	2
B A 615	Strategic Financial Management	3
B A 616	Competitive Analysis	3
B A 700	Business in the Global Environment.....	3
B A 701	Executive Entrepreneurship.....	3
B A 702	Social Responsibility: Legal and Ethical Environment of Business.....	3
B A 703	Strategic Management.....	3
B A 705	Marketing Strategy	2
B A 707	Executive Seminar in Negotiations	2
B A 709	Seminar in the Global Financial Environment	3
B A 710	Executive Leadership	3
B A 711	Seminar in Contemporary Challenges	1-5
B A 790	Directed Readings in Business Administration.....	3 (Cr/NC)

Master of Science Degree in Business Administration

Admission to the Degree Curriculum

In addition to meeting the requirements for classified graduate standing in the university and admission to the Fowler College of Business, as described above, and in Part Two of this bulletin, the student must have satisfactorily completed equivalents of the following courses:

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership.....	3
B A 625	Financial and Management Accounting	3
B A 626	Business Economics	3
B A 627	Marketing.....	3
B A 628	Operations and Supply Chain Management.....	3
B A 629	Financial Management.....	3

In addition, the student's adviser may request satisfactory completion of additional prerequisite courses in the student's proposed field of specialization. Current students are required to complete any needed program prerequisites by enrolling in graduate courses and may not satisfy prerequisites by enrolling in undergraduate equivalency courses.

Notice of admission to a curriculum with classified graduate standing will be sent to the student upon the recommendation of the Fowler College of Business and the approval of the dean of the Division of Graduate Affairs.

For admission to the taxation concentration (05022) the student must be a certified public accountant (CPA) or have a juris doctor (JD) degree from an accredited law school and have completed Accountancy 201 and 202.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Students concurrently enrolled in deficiency coursework may be given permission to take the comprehensive examination in their concentration prior to actual completion of all coursework. However, comprehensive examinations will not be evaluated and results will not be reported to the Division of Graduate Affairs until all deficiency coursework has been successfully completed. This may delay graduation.

Specific Requirements for the Master of Science Degree (Major Code: 05011) (SIMS Code: 221701)

In addition to meeting the requirements for classified graduate standing as described above and the general requirements for master's degrees as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 approved units to include at least 21 units in 600- and 700-numbered courses (except for the concentration in Financial and Tax Planning, which requires at least 15 units in 600- and 700-numbered courses). Up to nine units of coursework may be accepted as transfer credit. This program cannot include Finance 604 and Business Administration courses numbered 625-629, without specific permission of the director, Graduate Business Programs. At least 24 units must be in business administration and economics. Not more than a total of six units in courses 797 (Research), 798 (Special Study), and Business Administration 780 (Field Studies in Business), may be accepted for credit toward the degree.

Each of the concentrations in the Master of Science in Business Administration requires Plan A, Thesis; or Plan B, Directed Readings in Business Administration or a written comprehensive examination offered by the appropriate department. The program must be approved by the college and departmental adviser.

For regulations concerning grade point averages, final approval for the granting of the degree, award of the degree, and diplomas, see the section entitled "Requirements for the Master's Degree" in Part Four of this Bulletin.

Business Administration

Concentration in Financial and Tax Planning (Major Code: 05043) (SIMS Code: 222124)

For the concentration in financial and tax planning, an optional Plan B, Comprehensive Examination, is available. Students may substitute a comprehensive examination and three units of additional coursework for the thesis requirement. This examination will be administered while students are registered in Finance 590.

Additionally, this concentration requires the following prerequisites, rather than the list shown under "Admission to the Degree Curriculum:"

ACCTG 201	Financial Accounting Fundamentals.....3
ECON 101	Principles of Economics.....3
ECON 102	Principles of Economics.....3
ECON 201	Statistical Methods3
OR	
STAT 119	Elementary Statistics for Business3
ECON 320	Intermediate Macroeconomic Theory.....3
OR	
ECON 422	Business Cycles.....3
FIN 240	Legal Environment of Business.....3
FIN 323	Fundamentals of Finance.....3

Concentrations	Major Code	SIMS Code
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No new students are being admitted into the following concentrations on the SDSU campus.

Entrepreneurship	05997	222360
Finance	05041	222115
International Business	05131	223650
Management	05061	222557
Marketing	05091	222771
Real Estate	05111	222192
Supply Chain Management	05064	222382
Taxation	05022	221929

Master of Business Administration Degree and Juris Doctor Degree

(California Western School of Law)

General Information

The Fowler College of Business and the California Western School of Law offer a four-year concurrent program and study leading to a Master of Business Administration and Juris Doctor degree in law. The objective of the concurrent degrees program is to prepare students who are competent in both law and business administration for advanced practice in many areas where the fields converge. Both degrees must be awarded in the same semester.

Admission to the Degree Curriculum

Regulations governing admission to the university and to the Fowler College of Business are outlined in Part Two of this bulletin.

The concurrent degree program requires separate application to each institution and admission to each institution. Admission decisions are made independently by San Diego State University and California Western School of Law; admission to one institution does not imply admission to the other.

The coordinators for the concurrent degree program in business administration and law are the director of graduate business programs, San Diego State University, and the associate dean, California Western School of Law.

Specific Requirements for the MBA/JD

Concurrent Degree

(Major Code: 05011) (SIMS Code: 221720)

Fowler College of Business

(39-45 Units—Including up to 12 units transferred from California Western School of Law)

Between 30 to 33 of the total units required must be completed in residence at San Diego State University. Up to 12 units from California Western School of Law will be accepted for transfer credit for programs of study.

The requirements for the degree are as follows:

- Complete the following core of seven courses. (21 units)

B A 623	Statistical Analysis.....3
B A 624	Organizational Behavior and Leadership3
B A 625	Financial and Management Accounting.....3
B A 626	Business Economics3
B A 627	Marketing.....3
B A 628	Operations and Supply Chain Management3
B A 629	Financial Management.....3

Subject to a limit of two courses, the requirement to complete individual core courses B A 623 to 629 may be waived by the director of graduate business programs if an equivalent course has been completed. Equivalency is determined by course content, institution at which course was taken, grade received, and time since course was taken. Current students are required to enroll in graduate courses and may not satisfy core course requirements by enrolling in undergraduate equivalency courses.
- B A 630 Business Strategy.....3
- Complete six to nine units of business electives (depending on course waivers).
- Complete a culminating experience. (3 units)

B A 795	Business Consulting.....3
B A 796	Integrative Business Analysis.....3
B A 799A	Thesis.....3 (Cr/NC/RP)

California Western School of Law (77 Units)

Courses	Units
Civil Procedures I and II	6
Constitutional Law I	3
Contracts I and II.....	6
Criminal Law	3
Criminal Procedure I.....	3
Evidence.....	4
Legal Process.....	0
Legal Skills I, II, III.....	6
Professional Responsibility.....	2
Property I and II.....	6
Torts I and II.....	6
Internship.....	5
Electives	27

The specific sequence of courses over the four year period is listed in the admissions material. Students attend the schools in the following pattern:

Year 1	California Western School of Law only
Year 2	San Diego State University, Fowler College of Business only
Year 3	Both schools
Year 4	Both schools

Master of Business Administration Degree and Juris Doctor Degree

(Thomas Jefferson School of Law)

General Information

The Fowler College of Business and the Thomas Jefferson School of Law offer a four-year concurrent program and study leading to a Master of Business Administration and Juris Doctor degree in law. The objective of the concurrent degrees program is to prepare students who are competent in both law and business administration for advanced practice in many areas where the fields converge. Both degrees must be awarded in the same semester.

Admission to the Degree Curriculum

Regulations governing admission to the university and to the Fowler College of Business are outlined in Part Two of this bulletin.

The concurrent degree program requires separate application to each institution and admission to each institution. Admission

decisions are made independently by San Diego State University and Thomas Jefferson School of Law; admission to one institution does not imply admission to the other.

The coordinators for the concurrent degree program in business administration and law are the director of graduate business programs, San Diego State University, and the associate dean, Thomas Jefferson School of Law.

Specific Requirements for the MBA/JD Concurrent Degree

(Major Code: 05011) (SIMS Code: 221721)

Fowler College of Business

(39-45 Units—Including up to 12 units transferred from Thomas Jefferson School of Law)

Between 30 to 33 of the total units required must be completed in residence at San Diego State University. Up to 12 units from Thomas Jefferson School of Law will be accepted for transfer credit for programs of study.

The requirements for the degree are as follows:

- Complete the following core of seven courses. (21 units)

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership	3
B A 625	Financial and Management Accounting.....	3
B A 626	Business Economics	3
B A 627	Marketing.....	3
B A 628	Operations and Supply Chain Management.....	3
B A 629	Financial Management.....	3

Subject to a limit of two courses, the requirement to complete individual core courses B A 623 to 629 may be waived by the director of graduate business programs if an equivalent course has been completed. Equivalency is determined by course content, institution at which course was taken, grade received, and time since course was taken. Current students are required to enroll in graduate courses and may not satisfy core course requirements by enrolling in undergraduate equivalency courses.
- B A 630 Business Strategy.....3
- Complete six to nine units of business electives (depending on course waivers).
- Complete a culminating experience. (3 units)

B A 795	Business Consulting.....	3
B A 796	Integrative Business Analysis.....	3
B A 799A	Thesis	3 (Cr/NC/RP)

Thomas Jefferson School of Law (76 Units)

Courses	Units
Business Associations	4
Civil Procedure I and II	6
Constitutional Law I and II	6
Contracts I and II.....	6
Criminal Law	3
Criminal Procedure	3
Evidence.....	4
Legal Writing I and II	7
Professional Responsibility.....	3
Property I and II.....	6
Remedies.....	3
Torts I and II	6
Internship.....	5
Electives	14

The specific sequence of courses over the four year period is listed in the admissions material. Students attend the schools in the following pattern:

Year 1	Thomas Jefferson School of Law only
Year 2	San Diego State University, Fowler College of Business only
Year 3	Both schools
Year 4	Both schools

Master of Business Administration Degree and Master of Arts Degree in Latin American Studies

General Information

The Fowler College of Business and the Center for Latin American Studies offer a three-year concurrent program study leading to a Master of Business Administration and a Master of Arts in Latin American Studies. The primary objective of the concurrent program is to offer preparation in the fields of business administration and Latin American studies for the purpose of providing the knowledge and skills necessary to promote and engage in business relationships within a Latin American historical, cultural, and linguistic milieu, in Latin America or in the United States.

For information, contact the chair of the Latin American Studies Committee or the director of graduate programs in the Fowler College of Business.

Admission to the Degree Curriculum

Since this program combines disparate disciplines, applicants are required to submit GMAT or GRE scores and should have substantial academic backgrounds in the humanities and social sciences. Applicants should also have a background in Spanish or Portuguese language and literature. Students in the concurrent degree program are expected to be full time so that all requirements will be satisfied in an acceptable time.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, (1) the student must complete with a grade of B (3.0) or better, either Spanish 302 (or its equivalent) or Portuguese 401 (or its equivalent), or three units of 500-level or graduate coursework in Spanish, or pass the American Council on the Teaching of Foreign Languages (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above; (2) all core courses in business and Latin American studies must be completed prior to advancement in any core course; (3) the student must have been recommended for advancement by the combined advisory committee; (4) the student must have a thesis proposal approved by the combined faculty advisory committee.

Upon advancement to candidacy, the student will enroll in B A 799A (Thesis). A thesis (Plan A) incorporating theory, method, and analytic techniques from both disciplines is the culminating experience for the concurrent program leading to the M.B.A. and M.A. degrees.

Specific Requirements for the MBA/MA Degree

(Major Code: 05011) (SIMS Code: 992001)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study consisting of 63 units as outlined below.

- The college expects students entering the Master of Business Administration and Master of Arts in Latin American Studies to be proficient in several areas. These include proficiency in statistics, mathematical skills, basic economics and in the use of personal computers, including spreadsheets and word processing. The students are responsible for insuring that they possess these skills before beginning the program.
- Complete the following core of seven courses. (21 units):

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership	3
B A 625	Financial and Management Accounting.....	3
B A 626	Business Economics	3
B A 627	Marketing.....	3
B A 628	Operations and Supply Chain Management.....	3
B A 629	Financial Management.....	3

Business Administration

Subject to a limit of two courses, the requirement to complete individual core courses B A 623 to 629 may be waived by the director of graduate business programs if an equivalent course has been completed. Equivalency is determined by course content, institution at which course was taken, grade received, and time since course was taken. Current students are required to enroll in graduate courses and may not satisfy core course requirements by enrolling in undergraduate equivalency courses.

3. B A 630 Business Strategy3
4. Complete 15 units in Business Administration to include:
 - FIN 654 Seminar in International Business Finance3
 - MGT 710 Seminar in World Business Environment3
 - MGT 723 Seminar in International Strategic Management3
 - MGT 745 Seminar in Corporate Innovation and Entrepreneurship3
 - MKTG 769 Seminar in International Marketing3
5. Complete 24 units in courses of Latin American content, including the following required courses:
 - LATAM 600 Seminar in Latin American Studies3
 - LATAM 601 Seminar on Methodology of Latin American Studies3

The remaining 18 units selected from the following list of courses:

Latin American Studies

- LATAM 550 Mexican-US Border from a Latin American Perspective3
- LATAM 580 Special Topics* 1-4
- LATAM 696 Experimental Topics*3
- LATAM 750 Seminar: Study in Latin America3
- LATAM 795 Latin American Studies Internship3 (Cr/NC)
- LATAM 797 Research 1-3 (Cr/NC/RP)

Anthropology

- ANTH 520 Ethnographic Field Methods3
- ANTH 529 Urban Anthropology3
- ANTH 531 Methods in Applied Anthropology3
- ANTH 533 Race, Ethnicity, and Identity*3
- ANTH 582 Regional Anthropology*3
- ANTH 583 Topical Anthropology*3
- ANTH 605 Seminar in Applied Anthropology3

Economics

- ECON 565 North American Economic Relations3
- ECON 720 Seminar in Development and Planning*3

History

- HIST 550 Colonial Mexico3
- HIST 551 Modern Mexico3
- HIST 558 Latin America in World Affairs3
- HIST 580 Topics in the History of War and Violence*3
- HIST 640 Directed Readings in Latin American History3

Journalism and Media Studies

- JMS 574 International Advertising3
- JMS 701 Seminar: Mass Communication Problems3

Political Science

- POL S 562 Religion and Politics in Comparative Perspective3
- POL S 564 Political Ecology of Latin America3
- POL S 565 Nations and Nationalism3
- POL S 566 Political Change in Latin America3
- POL S 567 Political Systems of Latin America3
- POL S 568 Mexican Politics3
- POL S 661 Seminar in the Political Systems of the Developing Nations*3
- POL S 667 Seminar in Latin American Political Systems3

Portuguese

- PORT 535 Brazilian Literature3

Sociology

- SOC 522 The Family in Comparative and Cross-Cultural Perspectives3
- SOC 554 Sociology of the United States-Mexico Transborder Populations and Globalization3

Spanish

- SPAN 602 Foundations and Research Methods of Hispanic Linguistics3
- SPAN 606 Spanish American Literature: Independence to Present3
- SPAN 751 Seminar in Realism*3
- SPAN 752 Seminar in Literature and Culture of the Fin-de-Siècle3
- SPAN 760 Seminar in Reading in the Transatlantic Imaginary3

California Western School of Law

Students may take two courses from California Western School of Law with the approval of the Latin American Studies graduate adviser. Students must apply to enroll under the provisions of the affiliation agreement with the California Western School of Law.

* Acceptable when of relevant content; check with the Latin American Studies graduate adviser before enrolling. Students must apply to enroll under the provisions of the affiliation agreement with the California Western School of Law.

6. The student must complete MGT 797 (Research) or LATAM 797 (Research) in addition to B A 799A (Thesis). The thesis in business administration will treat a Latin American related topic and will be supervised by a business faculty with international business expertise and at least one faculty member from the Latin American studies program.

If a student after entering the concurrent MBA/MA program returns to a single degree program, all the requirements for the single degree program must be met.

A Master of Engineering degree is offered for students who are interested in a career in engineering with a business/management emphasis. For course requirements consult Engineering in this section of the bulletin.

Courses Acceptable for the Master of Business Administration and the Master of Science Degree Programs (B A)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

B A 623. Statistical Analysis (3)

Prerequisites: Classified graduate standing and basic statistics. Understanding and applications of statistics for problem solving and managerial decision making. (Formerly numbered Business Administration 652.)

B A 624. Organizational Behavior and Leadership (3)

Prerequisite: Classified graduate standing.
Study of individuals and groups within an organizational context. Topics include leadership, individual differences, organizational design, group processes and characteristics, organizational processes and practices; and influence of these on individual, group, and organizational effectiveness. (Formerly numbered Business Administration 651.)

B A 625. Financial and Management Accounting (3)

Prerequisite: Classified graduate standing.
Financial and management accounting for decision making and control in profit-directed organizations. Terminology, concepts, frameworks, and tools used to understand and analyze the financial consequences of business activities. Not open to students with credit in Business Administration 650.

B A 626. Business Economics (3)

Prerequisite: Classified graduate standing.
Microeconomic and macroeconomic environments of business. Assessing and forecasting the impact of market structure, economic climate, and governmental policies on pricing, operations, and competitive strategy. Not open to students with credit in Business Administration 653.

B A 627. Marketing (3)

Prerequisite: Classified graduate standing.
Role and function of marketing in the organization and society. Planning, implementation, and evaluation of marketing strategies and programs. Not open to students with credit in Marketing 370. (Formerly numbered Business Administration 655.)

B A 628. Operations and Supply Chain Management (3)

Prerequisite: Classified graduate standing.
Managerial concepts and quantitative methods associated with the design, execution, and management of operations and supply chain systems. (Formerly numbered Business Administration 662.)

B A 629. Financial Management (3)

Prerequisite: Business Administration 625.
Explore role of finance in a shareholder value based framework. Financial analysis and planning, investment, capital structure, financial markets, capital raising and capital disbursement decisions, valuation, and corporate restructuring. Not open to students with credit in Business Administration 665.

B A 630. Business Strategy (3)

Prerequisites: Business Administration 624, 625, 626, 627, 628, 629.

Contemporary frameworks used in environmental and industry analysis, organizational analysis, strategy formulation and implementation. Managerial issues from the view point of top managers, based on a long-term and multifunctional perspective of organizations and their environments.

B A 780. Field Studies in Business (1-3) Cr/NC

Prerequisite: Completion of MBA core.
Application of business concepts to real world organizations. Students work under supervision of a faculty member to perform a project utilizing theories and principles from previous business coursework. Maximum credit six units.

B A 795. Business Consulting (3)

Prerequisites: Advancement to candidacy and completion of MBA core.

Strategic analysis of business problems in a consulting context. Problem definition analysis and prioritization of solution mechanisms. Preparation for comprehensive examination for students in the M.B.A. program under Plan B.

B A 796. Integrative Business Analysis (3)

Prerequisite: Advancement to candidacy.
Integrative business analysis through cases and simulations. Preparation for the comprehensive examination for students in the M.B.A. program (Plan B).

B A 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with Director of Graduate Business Programs and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

B A 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

B A 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

B A 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Courses Acceptable for the Master of Business Administration Degree for Executives (B A)

GRADUATE COURSES

B A 601. Organizational Behavior for Executives (3)

(Offered only in the College of Extended Studies)

Role of the manager in designing organizations for effectiveness with emphasis on organizational theory and organizational behavior.

B A 602. Statistics for Business Decisions (3)

(Offered only in the College of Extended Studies)

Statistics and production operations management. Data analysis, central tendency and variability, probability, distributions, sample inference, association analysis. Applications in engineering, manufacturing and service, and an overview of decision theory, queuing, total quality control, and project management.

B A 603. Executive Financial Accounting (2)

(Offered only in the College of Extended Studies)

Prerequisite: Admission to M.B.A. for Executives program.
Accounting procedures and judgments underlying corporate financial statements; ability to read and analyze these statements; make inferences about financial stability, likelihood of success, and other important attributes of various business entities.

B A 604. Executive Managerial Accounting (2)

(Offered only in the College of Extended Studies)

Prerequisite: Admission to M.B.A. for Executives program.
Accounting information for internal decision making purposes to include cost measurement, capacity management, activity based costing, activity based management, production costing, quality costing, pricing, CVP analysis, budgeting, performance evaluation, transfer pricing, and compensation.

B A 605. Managerial Marketing (2)

(Offered only in the College of Extended Studies)

The marketing function in an organization. Managerial activities of marketing including market analysis, target market selection and design of the organization's marketing program.

B A 615. Strategic Financial Management (3)

(Offered only in the College of Extended Studies)

Provides a framework for financial decision making. Covers relevant modern theory and emphasizes role of finance in corporate strategy. Topics include financial analysis and planning, investment, capital structure and dividend decisions and valuation and corporate restructuring. Not open to students with credit in Business Administration 665.

B A 616. Competitive Analysis (3)

(Offered only in the College of Extended Studies)

Competition in typical unregulated product or service markets. Competitive forces in such markets, and impact of these forces on economic profits, rates of return, and relative market-shares of competing firms. Not open to students with credit in Business Administration 653.

B A 700. Business in the Global Environment (3)

(Offered only in the College of Extended Studies)

Evolution of multinational corporations, management of organizations in global environment, and marketing and management implications of competition in international arena.

B A 701. Executive Entrepreneurship (3)

(Offered only in the College of Extended Studies)

Entrepreneurial approach to business. Concepts, theories, and techniques for organizing and managing an entrepreneurial venture.

B A 702. Social Responsibility: Legal and Ethical

Environment of Business (3)

(Offered only in the College of Extended Studies)

Role of the manager in dealing in a socially responsible and ethical manner with internal and external constituencies.

B A 703. Strategic Management (3)

(Offered only in the College of Extended Studies)

Corporate and business level strategic decision making. Topics include industry and environmental analysis, strategy implementation, strategic planning systems. Case descriptions of actual company situations serve as basis for analysis and recommendations.

B A 705. Marketing Strategy (2)

(Offered only in the College of Extended Studies)

Development, implementation, and evaluation of marketing strategy and plans. Role of marketing planning, analysis and control; contributions and implications of marketing to corporate strategy. Strategies for attaining competitive advantage. Contemporary marketing planning tools and techniques.

B A 707. Executive Seminar in Negotiations (2)

(Offered only in the College of Extended Studies)

Prerequisite: Admission to M.B.A. for Executives program.

Negotiations principles in managerial contexts. Concepts, skills, and simulations of negotiation processes.

B A 709. Seminar in the Global Financial Environment (3)

(Offered only in the College of Extended Studies)

Develops understanding of world economy and illustrates impact of financial environment on decision making process of business managers. How corporations respond to changing economic forces and/or historical governmental policies.

B A 710. Executive Leadership (3)

(Offered only in the College of Extended Studies)

Theoretical and empirical literature pertaining to study and assessment of leadership skills. Process of organizational change and development.

B A 711. Seminar in Contemporary Challenges (1-5)

(Offered only in the College of Extended Studies)

Challenges facing managers of organizations in modern society: organizational, human resources, operational, economic, environmental, political, international, and technological issues. See *Class Schedule* for specific content. Maximum credit five units applicable to a master's degree.

B A 790. Directed Readings in Business

Administration (3) Cr/NC

(Offered only in the College of Extended Studies)

Preparation for the comprehensive examination for students in the M.B.A. for Executives program (Plan B).

Accountancy

IN THE CHARLES W. LAMDEN SCHOOL OF ACCOUNTANCY
IN THE FOWLER COLLEGE OF BUSINESS

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Faculty

Damon M. Fleming, Ph.D., Professor of Accountancy,
Director of School

John C. Anderson, Ph.D., Professor of Accountancy

C. Janie Chang, Ph.D., Professor of Accountancy
The Vern E. Odmark Chair in Accountancy,
(Graduate Adviser)

Damon M. Fleming, Ph.D., Professor of Accountancy
(Graduate Adviser)

Gary M. Grudnitski, Ph.D., Professor of Accountancy

Victoria Krivogorsky, Ph.D., Professor of Accountancy

Nathan A. Oestreich, Ph.D., Professor of Accountancy

Hung C. Chan, Ph.D., Associate Professor of Accountancy

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(BMACC Adviser)

Steven L. Gill, Ph.D., Associate Professor of Accountancy
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Gun-Ho Joh, Ph.D., Associate Professor of Accountancy

Brett S. Kawada, M.Acc., Assistant Professor of Accountancy

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(Graduate Adviser)

Hannah Smith, M.S.A., Assistant Professor of Accountancy

Jundong Wang, Ph.D., Assistant Professor of Accountancy

The Vern E. Odmark Chair in Accountancy

Established in recognition of Dr. Vern E. Odmark for his 25 years of teaching at SDSU, basic support is provided by contributions from friends, alumni, and corporations, including many major national accounting firms. The chair acknowledges the university's objective of continuing the high standards of teaching excellence and professionalism that characterized Odmark's career.

Dr. Chee W. Chow, widely recognized throughout the country for the breadth of his research and his technical thoroughness, held the chair from 1984 until his retirement in 2006. Dr. C. Janie Chang, recognized for research and teaching was awarded the chair in fall 2006.

Master of Science Degree in Accountancy

General Information

The objective of the Master of Science degree program in accountancy is to provide students with greater breadth and depth in accounting education than is possible in the baccalaureate degree. The program allows students to focus their accounting studies in an area of specialization within the field of accounting and to gain a greater breadth in their knowledge of business and accounting. In order to provide the opportunity for specializing one's accounting knowledge, the M.S. program provides three areas of specialization: accounting information systems, financial reporting, and taxation. Each area consists of a series of selected courses which students take upon the recommendation of their adviser. Specialization within the M.S. degree is intended to give students the necessary academic background and research experience to advance their careers in public accounting, private accounting or government. The M.S. degree may also prepare students for a teaching career or admittance into a doctoral program.

Admission to the Degree Curriculum

In addition to meeting the requirements for classified graduate standing in the university and admission to the Fowler College of

Business, as described above, and in Part Two of this bulletin, the student must have satisfactorily completed the following courses or their equivalent:

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership	3
B A 625	Financial and Management Accounting	3
B A 626 (or ECON 101 and ECON 102)	Business Economics	3
B A 629	Financial Management.....	3

Students also need an English writing and/or composition course at a university where English is the primary language of instruction, and any other course deficiencies as required by a graduate adviser in the School of Accountancy.

Satisfactory completion means that the student's grade in each course must be B (3.0) or better and that the course must have been completed within seven years prior to the first course completed on the master's degree program. The seven year requirement may be waived by the School of Accountancy adviser.

Notice of admission to a curriculum with classified graduate standing will be sent to the student only upon the recommendation of the Fowler College of Business and the approval of the dean of the Division of Graduate Affairs.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree in Accountancy

(Major Code: 05021) (SIMS Code: 221909)

In addition to meeting the requirements for classified graduate standing as described above and the general requirements for master's degrees as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 approved units including at least 21 units in 600- and 700-numbered courses. Of the 30 units, at least 15 units must be in accountancy courses at San Diego State University. At least 12 units of accountancy courses must be numbered 650 and above (in special cases, nine units with adviser approval). Under Plan A, Business Administration 799A, Thesis, is required. Under the optional Plan B, a comprehensive examination and three units of additional coursework may be substituted for the thesis requirement.

Accountancy 620, Financial Measurement and Reporting; Accountancy 621, Accounting Information Systems; Accountancy 624, Tax for Managers; Accountancy 625, Managerial Analysis and Financial Reporting; and Accountancy 626, Auditing and Assurance Services, are required unless the student has completed the equivalent course(s) as a part of their undergraduate preparation. If required, up to three of these courses (nine units) may be accepted toward the 30 approved units for the graduate program.

The program must include at least 24 units in business administration and economics. Not more than a total of six units in courses 797, Research, and 798, Special Study, may be accepted for credit toward the degree.

The following specializations are available for the Master of Science degree in Accountancy:

Specializations	Major Code	SIMS Code
Accounting Information Systems	05021	221915
Financial Reporting	05021	221916
Taxation	05021	221917

Accountancy

For regulations concerning grade point average, final approval for the granting of the degree, award of the degree, and diplomas, see the section entitled "Requirements for the Master's Degree," in Part Four of this bulletin.

BS/MS 4+1 Degree Program (BMACC)

The BS/MS 4+1 degree program (BMACC) is for students who plan to pursue professional accounting careers in public accounting firms, corporations, and not-for-profit and government organizations. Students must successfully complete 150 units to be awarded simultaneously the B.S. degree in Business Administration, Accounting, and the M.S. degree in Accountancy.

Specific Requirements for the BS/MS 4+1 Degree Program (BMACC)

(Major Code: 05021) (SIMS Code: 221913)

Students must apply and be admitted to the BS/MS 4+1 degree program (BMACC). All students must have a satisfactory score on the Graduate Management Admissions Test, a minimum overall GPA of 2.85, a minimum SDSU GPA of 2.85, and a minimum upper division SDSU Fowler College of Business GPA of 2.85. Students may apply for the program at any time during their undergraduate studies after completing at least two upper division core accountancy courses (must include Accountancy 331) with a minimum overall GPA of 2.85 among the completed courses (upper division accountancy core courses include Accountancy 331, 332, 333, 334, 431, 432).

Students attain graduate status when they have earned at least 120 units towards the completion of the BMACC program. No more than nine units may be in 500-level courses to meet the requirements for the master's program. At least 15 units of 500-, 600-, and 700-numbered courses must be in accountancy courses (to include Accountancy 790) and must include at least 12 units in courses numbered 650 and above (in special cases, nine units with adviser approval). Students must achieve at least a 3.0 average in the courses numbered 500 and above and specified on their official program for the 30 unit master's degree. Courses numbered 500 and above must be completed within seven years of the first course completed on the master's degree program. If for any reason a student does not satisfactorily complete the requirements for the Master of Science in Accountancy degree, they will be awarded the B.S. degree in Business Administration in Accounting, upon completion of the requirements for the B.S. degree.

Courses Acceptable for Master's Degree Program in Accountancy (ACCTG)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

ACCTG 501. Advanced Financial Accounting (3)

Prerequisite: Minimum grade of C in Accountancy 334. **Proof of completion of prerequisite 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 503. Federal Taxation of Individuals (3)

Prerequisites: Accountancy 201 and 202. Approved upper division business major, business minor, or other approved major.

Proof of completion of prerequisites required: Copy of transcript.

Taxation of individuals, including income, deductions, credits, social security taxes, and property transactions.

ACCTG 505. Fraud Examination (3)

Prerequisite: Accountancy 431 or 626. **Proof of completion of prerequisite required:** Copy of transcript.

Skills and tools for auditors, consultants, tax professionals, managers. Techniques and technologies for fraud investigation and interviewing. Case analysis, research of public records, ethical decision making for accountants. Service learning project.

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

Prerequisite: Minimum grade of C in Accountancy 326 or 331.

Proof of completion of prerequisite required: Copy of transcript.

Principles of modified accrual accounting in state and local governmental units, hospitals, colleges, and universities. Budgetary accounting, appropriations, encumbrances, internal controls, and auditing procedures.

ACCTG 522. International Financial Reporting (3)

Prerequisites: Accountancy 390W; minimum grade of C in Accountancy 334 (or Accountancy 620 and 625). **Proof of completion of prerequisites required:** Copy of transcript.

Accounting convergence, IASB-FASB joint projects. US and international financial reporting issues and standards.

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

Prerequisites: Business major approved by the Fowler College of Business 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

ACCTG 620. Financial Measurement and Reporting (3)

Prerequisite: Business Administration 625.

Measurement concepts and mechanics to translate global business transactions into principal financial statements using U.S. and international accounting standards. Revenue recognition, operating assets, investments, debt and equity financing, compensation, EPS, and cash flows.

ACCTG 621. Accounting Information Systems (3)

Prerequisite: Business Administration 625.

Application of accounting information systems to attain organizational objectives, improve planning and control at all levels of the organization. Systems analysis, design methodologies, tools, control frameworks and use of technologies in information systems.

ACCTG 624. Tax for Managers (3)

Prerequisite: Business Administration 625.

Federal income tax law that affects management decisions in a framework of ethical tax planning and risk assessment.

ACCTG 625. Managerial Analysis and Financial Reporting (3)

Prerequisite: Business Administration 625.

Measurement concepts and mechanics to translate business transactions into management and financial reporting information. Cost control and budgeting, inventory, operational assets, leases, deferred taxes, and strategic analysis.

ACCTG 626. Auditing and Assurance Services (3)

Prerequisites: Accountancy 620 and 621.

Duties, responsibilities, and ethics of the auditor; auditor's reports and procedures for evaluation of financial statements. Compilation and review standards for assurance services provided to non-public companies.

ACCTG 630. Ethics in Accounting (3)

Prerequisite: Accountancy 620.

Ethical reasoning and implications for accounting professionals; ethical decision process and professional judgment; professional codes of conduct from the AICPA, IMA, IIA, etc.; the professional accountant's role in corporate governance and ethical management; audit responsibilities and fraud, including legal and regulatory obligations; current ethical issues facing the accounting profession.

ACCTG 650. Tax Research and Practice (3)

Prerequisite: Accountancy 332, 503, or 624.

Tax research methodology; statutory, administrative, and judicial sources of tax law. Tax practitioner regulations, responsibilities, and ethics to include IRS Circular 230, AICPA Code of Conduct and Statements on Standards for Tax Services. Tax administration, sanctions, agreements, and disclosures.

ACCTG 651. Seminar in Corporate Tax (3)

Prerequisite: Credit or concurrent registration in Accountancy 650.

Corporate tax problems involving distributions, liquidations, reorganizations, redemptions, personal holding companies, accumulated earnings tax, and thin capitalization.

ACCTG 654. Seminar in Partnership Taxation (3)

Prerequisite: Credit or concurrent registration in Accountancy 650.

Partnership and S corporation tax laws related to formation, operations, distributions, and liquidations. Flow-through entities in small and medium sized business environments.

ACCTG 655. Tax Planning for Individuals (3)

Prerequisite: Credit or concurrent registration in Accountancy 650.

Selected complex tax laws related to individuals and sole proprietorship businesses, sales and exchanges of property, tax deferred transactions in property, accounting periods and methods, and personal deductions.

ACCTG 656. California and Multistate Taxation (3)

Prerequisite: Credit or concurrent registration in Accountancy 650.

California taxation of individuals, corporations, and other business entities. Treatment of multistate transactions of business organizations and out-of-state transactions of California residents.

ACCTG 657. Accounting for Income Taxes (3)

Prerequisites: Undergraduate degree in accounting or Accountancy 620 and 624.

Financial accounting for income taxes. Accounting methods and periods for Federal income tax purposes.

ACCTG 659. Seminar in Taxation Topics (1-3)

Prerequisite: Credit or concurrent registration in Accountancy 650.

Contemporary theories and practices in taxation. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ACCTG 660. Seminar in Accounting Theory (3)

Prerequisite: Accountancy 620.

Theories and concepts underlying global financial reporting. Professional research of authoritative pronouncements issued by the FASB, SEC, and other accounting regulators. Topics include accounting standards setting, measurement, market efficiency, disclosure, earnings quality, professional judgment.

ACCTG 661. Seminar in International Accounting (3)

Prerequisite: Business Administration 625.

Current financial reporting practices of business entities engaged in international activities; theories and concepts that underlie development of accounting standards to include cultural and professional dimensions, accounting clusters.

ACCTG 663. Financial Statement Analysis (3)

Prerequisite: Business Administration 625.

Illustrative cases and problems to analyze methods for communicating information about financing and operating activities of corporate firms, and techniques for evaluating the information.

ACCTG 670. Seminar in Assurance Services (3)

Prerequisite: Accountancy 431 or 626.

Selected conceptual issues in assurance services.

ACCTG 673. Accounting Information Systems (AIS) Development (3)

Prerequisite: Accountancy 621.

AIS theories, databases, and internal controls in designing, maintaining, and enhancing business processes and systems. Hands-on experience to develop skills with EXCEL, ACCESS, and/or other integrated systems. (Formerly numbered Accountancy 575.)

ACCTG 675. Seminar in Accounting Information Systems Audit and Control (3)

Prerequisite: Accountancy 673 or Management Information Systems 687 with a grade of B or better.

Risk assessment and management in accounting systems, including impact on clients' business and audit functions, external and internal auditor issues, internal controls in computerized environments, issues related to Sarbanes-Oxley Act, and application of computer-assisted audit techniques (CAATs) using current audit software.

ACCTG 680. Seminar in Managerial Accounting (3)

Managerial cost accounting concepts and procedures, including budgetary planning, cost control, advisory functions, measurement of divisional profitability, product pricing, and investment decisions.

ACCTG 681. Seminar in Regulation and Corporate Governance in Accounting (3)

Prerequisite: Business Administration 625.

Social, ethical, and behavioral science theories influencing design and operation of corporate governance systems, topics include environmental and regulatory factors that influence, motivate, and control managers and employees.

ACCTG 696. Seminar in Selected Topics (3)

Intensive study in specific areas of accountancy. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ACCTG 729. Seminar in Current Issues in Accounting and Auditing (1-3)

Prerequisite: Accountancy 620.

Contemporary theories and practices in relation to changing accounting environment. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ACCTG 790. Analytics in Accounting (3)

Prerequisite: Advancement to candidacy.

Problem diagnosis, information analysis and evaluation, and decision making for contemporary issues in accounting information systems, auditing, financial reporting, management accounting, and taxation. Preparation for comprehensive examination for students in the M.S. degree in Accountancy under Plan B.

ACCTG 797. Research (3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Research in the area of accountancy. Maximum credit six units applicable to a master's degree.

ACCTG 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Finance

IN THE FOWLER COLLEGE OF BUSINESS

OFFICE: Student Services East 3428
TELEPHONE: 619-594-5323 / **FAX:** 619-594-3272
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Faculty

Kamal M. Haddad, Ph.D., Professor of Finance,
 Chair of Department (Graduate Adviser)
Swaminathan G. Badrinath, Ph.D., Professor of Finance
Andrew Q. Do, Ph.D., Professor of Finance
 (Graduate Adviser, Real Estate)
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Babak Lotfaliei, Ph.D., Assistant Professor of Finance
Patrick S. Smith, Ph.D., Assistant Professor of Finance
Timothy E. Trombley, Ph.D., Assistant Professor of Finance

Executive Financial Planner Advanced Certificate

(Offered through the College of Extended Studies)
 (SIMS Code: 226602)

The advanced certificate is intended for students who wish to provide advanced financial planning advice to individuals, families and partners. The program is intended for experienced financial, legal, or accounting professionals who enroll in the Executive Financial Planner Advanced Certificate Program. Offered jointly by the Fowler College of Business and the College of Extended Studies, this advanced certificate is registered with the Certified Financial Planner Board of Standards, Inc., as a program intended to meet their education requirements to sit for the CFP® Certification Examination.

Applicants for any type of graduate study at San Diego State University must: (a) hold an acceptable baccalaureate degree earned at an institution accredited by a regional accrediting association, or the applicant has completed equivalent academic preparation as determined by the graduate dean; (b) have attained a grade point average of at least 2.85 in an acceptable earned baccalaureate degree, or at least 2.85 in the last 60 semester (90 quarter) units attempted, or hold an acceptable post-baccalaureate degree earned at an institution accredited by a regional accrediting association; (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. Applicants from foreign countries see International (Foreign) Student Admission Requirements.

Admission to the Executive Financial Planner Advanced Certificate program does not constitute admission to the master's degree programs of the Fowler College of Business, which has additional requirements including qualifying scores on the Graduate Management Admissions Test (GMAT).

The advanced certificate requires 18 units; however, the program director may waive up to six units based upon prior coursework and professional credentials. Prerequisites can be waived by the instructor or program director, based upon a student's prior coursework and experience.

Certificate Course Requirements (18 units)

ACCTG 503	Federal Taxation of Individuals.....3
FIN 522	Individual Insurance Management.....3
FIN 590	Personal Financial Planning Practicum.....3
FIN 651	Seminar in Investments.....3
FIN 657	Financial and Retirement Planning.....3
FIN 705	Estate Planning.....3

Students must earn a 3.0 average in these classes in order to earn the certificate. Classes with a grade below a "C" (2.0) may not be included. Students admitted to a master's program may use certificate credit toward a graduate degree in business (Master of Business Administration or Master of Science in Business Administration) with the permission of their graduate adviser.

The adviser for the certificate is Dr. Thomas M.D. Warschauer, Department of Finance. All course units may be used for business majors and concentrations where applicable and approved by the student's graduate adviser.

Courses Acceptable for Master's Degree Programs in Business Administration (FIN)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

FIN 522. Individual Insurance Management (3)

Prerequisites: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core. **Proof of completion of prerequisites required:** Copy of transcript.

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 585. Estate Planning Issues and Practice (3)

Prerequisite: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core. **Proof of completion of prerequisites required:** Copy of transcript.

Tax and non-tax issues in establishment of a personal estate plan. Financial and non-financial goals and objectives. Not open to students with credit in Finance 445 or 705.

FIN 589. Personal Financial Planning (3)

Prerequisite: Business Administration 323. **Proof of completion of prerequisite required:** Copy of transcript.

Financial planning process including data gathering, cash flow and debt considerations. Retirement planning including social security. Education funding. Practice management considerations including establishment of ethical and legal client relationships.

FIN 590. Personal Financial Planning Practicum (3)

Prerequisite: Credit or concurrent registration in Finance 589 or 657. **Proof of completion of prerequisite required:** Copy of transcript.

Preparation of family financial plans using comprehensive cases and/or real financial data. Financial planning software. Counseling and communication skills, behavioral finance, client psychology, practice standards, discipline and ethics. Students may register once at the undergraduate level and may repeat with new content at the graduate level.

FIN 596. Contemporary Topics in Finance (1-3)

Prerequisites: Business major approved by the Fowler College of Business and consent of instructor.

Contemporary topics in modern finance. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

FIN 604. Legal Environment for Executives (3)

Legal environment of business, government regulation, social and ethical considerations in the administration of justice, substantive law of contracts, property, agency, and business organizations.

FIN 617. Financial Management II (3)

Prerequisite: Business Administration 629.

Develops topics to include asset pricing, capital budgeting techniques, dividend policy and financing decisions, applications of options and futures, term structure of interest rates, regulation of financial markets, leasing decisions, corporate control.

FIN 641. Financing the Emerging Enterprise (3)

Prerequisite: Business Administration 629.

Financial considerations in emerging and growing enterprises to include internal financial management, external funding sources, and dealing with venture capitalists. Emphasis on integration of theory, computer analysis, and human judgment in financial decision making.

FIN 642. Financial Risk Management (3)

Prerequisite: Business Administration 629.

Measurement and management of foreign exchange, interest rate, equity, and commodity risks. Risk assessment models, implementation strategies, risk management, and capital allocation. Using derivatives for risk management.

FIN 651. Seminar in Investments (3)

Prerequisite: Business Administration 629.

Characteristics of financial markets and instruments. Contemporary as well as traditional approaches to problems of pricing individual securities; portfolio selection and analysis; techniques of analysis; measurement of risk; return, and investment values.

FIN 652. Seminar in Security Analysis and Portfolio Management (3)

Prerequisite: An upper division or graduate course in investments.

Security valuation, alternative instruments, portfolio theory, active and passive management techniques, asset allocation, performance measurement, use of derivative instruments in portfolio management, debt portfolio management techniques, ethical standards.

FIN 653. Case Studies in Financial Management (3)

Prerequisite: Business Administration 629.

Applies theory of finance to practice of financial decision-making. Includes valuation, mergers, and restructurings. Integrates theory and managerial judgment in a decision-making context. Case study format.

FIN 654. Seminar in International Business Finance (3)

Prerequisite: Business Administration 629.

International financial instruments, markets, and institutions; international trade and capital flows; foreign exchange risks and their management; direct and portfolio investment; implications for conduct of global business.

FIN 656. Seminar in Financial Institutions (3)

Prerequisite: Business Administration 629.

Change in financial institution management thought. Trends in asset management theory and liability management theory. Current events in financial institutions, changes likely to occur and proposed changes in laws and regulations.

FIN 657. Financial and Retirement Planning (3)

Prerequisite: Business Administration 629.

Decision-making process and theory of individual financial needs. Retirement planning including Social Security. Education planning. Financial strategies that aid in meeting family goals.

FIN 659. Decision Making in the World Economy (3)

Prerequisite: Classified graduate standing.

Application of macroeconomic theory to business decision making, study of economic environment and government macroeconomic policy from a business viewpoint.

FIN 696. Seminar in Selected Topics (3)

Intensive study in specific areas of finance. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

FIN 705. Seminar in Estate Planning (3)

Prerequisite: Business Administration 629.

The scope and nature of estate planning. Identification and analysis of the environmental factors and those aspects of federal and state law affecting estate planning and taxation. Estate taxation and social policy.

FIN 783. Seminar in Real Estate Investment and Development (3)

Prerequisite: Graduate standing.

Analysis of real estate investment and development decisions by corporations, individuals and financial institutions. Market and feasibility analysis, taxation, financing and risk evaluation, portfolio considerations.

FIN 797. Research (3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Research in the area of finance. Maximum credit six units applicable to a master's degree.

FIN 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Management

IN THE FOWLER COLLEGE OF BUSINESS

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Faculty

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Chair of Department (Graduate Adviser)

Beth G. Chung-Herrera, Ph.D., Professor of Management

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Martina Musteen, Ph.D., Professor of Management

Amy E. Randel, Ph.D., Professor of Management

Lori V. Ryan, Ph.D., Professor of Management

Chamundeswari Sundaramurthy, Ph.D., Professor of
Management

John D. Francis, Ph.D., Associate Professor of Management

Congcong Zheng, Ph.D., Associate Professor of Management
(Graduate Adviser)

Mujtaba Ahsan, Ph.D., Assistant Professor of Management

Whitney G. Fernandez, Ph.D., Assistant Professor of Management

Taekjin Shin, Ph.D., Assistant Professor of Management

Courses Acceptable for Master's Degree

Programs in Business Administration (MGT)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSE

MGT 596. Advanced Topics in Management (3)

Prerequisites: Six upper division units in management. **Proof of completion of prerequisites required:** Copy of transcript.

Advanced special topics in management. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

MGT 626. Competitive Analysis of Industries (3)

Prerequisite: Business Administration 624.

Concepts and tools for studying structure of industries and processes of structural change in industries. Implications of public policy decisions and competitive actions on strategy formulation are explored in several industry settings.

MGT 669. Human Resource Management (3)

Prerequisite: Business Administration 624.

Design of organizational systems for accomplishing work through individuals and groups. Strategic, legal, and ethical considerations in staffing, appraising, developing, and rewarding people at work.

MGT 672. International Human Resource Management (3)

Prerequisite: Business Administration 624.

Managing human resources in a global economy: theories, implementation, and evaluation of IHRM.

MGT 696. Seminar in Selected Topics (3)

Intensive study in specific areas of management. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MGT 710. Seminar in World Business Environment (3)

Prerequisite: Business Administration 624.

Nature, dimensions and motives of international business. Impact of environmental factors. Nature of multinational corporation, importance of national and multilateral controls and policies for international business management.

MGT 721. Seminar in Group Processes and Leadership (3)

Prerequisite: Business Administration 624.

Perceptions and processes in work groups. Experience in interpersonal networks, influence and rewards, stereotypes; managing differences and conflicts.

MGT 722. Seminar in Business Ethics and Social Institutions (3)

Prerequisite: Business Administration 624.

Ethical and social aspects of current issues in business and society. Changing role of stakeholders including consumers, shareholders, and employees. Assessment of operation, functioning and regulation of the market system.

MGT 723. Seminar in International Strategic Management (3)

Prerequisite: Completion of MBA core or MS prerequisites.

Strategic decision making in managing international enterprises. General management problems in directing and controlling transnational companies, including entry, acquisitions and joint ventures. Cases and readings to acquaint students with worldwide business practices.

MGT 724. Entrepreneurship (3)

Prerequisite: Business Administration 624.

Examination of the entrepreneurial approach; concepts, theory and techniques of managerial innovation and implementation; analysis of entrepreneurial skills.

MGT 729. Seminar in Organizational Issues (3)

Prerequisite: Business Administration 624.

Issues in organizations in modern society: organization design, environmental interface, and political processes. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

MGT 743. Seminar in Business Plan Development (3)

Prerequisite: Management 724.

Principles and techniques for developing a business plan.

MGT 744. Seminar in Managing the Growing Firm (3)

Prerequisite: MBA core or admission to degree curriculum for M.S. degree business administration.

Problems and issues confronting entrepreneurs beyond start-up of a new venture. Focus on issues from both entrepreneur and investor perspectives.

MGT 745. Seminar in Corporate Innovation and Entrepreneurship (3)

Prerequisite: MBA core.

Challenges and issues confronting organizations seeking to pursue new business opportunities. Senior management charged with the mandate of pursuing new business opportunities and employees desiring to champion new ventures under corporate umbrella.

MGT 746. Seminar in Corporate Governance (3)

Prerequisite: Classified graduate standing.

Roles and interrelationships among members of corporate governance triad: managers, directors, and shareholders. History and theories of corporate governance, ethical obligations underlying the three roles, and case studies.

MGT 747. Seminar in Managing Technology Commercialization (3)

Prerequisite: Graduate standing.

Assessment of future commercialization potential of early stage technologies. Technology commercialization process including technology and market assessments, business models, revenue streams, licensing, and protection of intellectual property.

MGT 748. Seminar in International Entrepreneurship (3)

Prerequisite: Business Administration 624.

Challenges and issues confronting entrepreneurs seeking to pursue international business opportunities. Concepts, theory, and techniques of international entrepreneurship. Drivers of entrepreneurship and assessment of entrepreneurial conditions around the world.

MGT 797. Research (3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Research in the area of management. Maximum credit six units applicable to a master's degree.

MGT 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.



Management Information Systems

IN THE FOWLER COLLEGE OF BUSINESS

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Faculty

Bruce A. Reinig, Ph.D., Professor of Management Information Systems, Chair of Department
Robert O. Briggs, Ph.D., Professor of Management Information Systems
Murray E. Jennex, Ph.D., Professor of Management Information Systems (Graduate Adviser)
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Bongsik Shin, Ph.D., Professor of Management Information Systems
Yeongling Helio Yang, Ph.D., Professor of Management Information Systems (Graduate Adviser)
Theophilus Addo, Ph.D., Associate Professor of Management Information Systems, Emeritus
Kaveh Abhari, Ph.D., Assistant Professor of Management Information Systems
Aaron C. Elkins, Ph.D., Assistant Professor of Management Information Systems (Graduate Adviser)
Xialu Liu, Ph.D., Assistant Professor of Management Information Systems
Ruoxuan Wang, Ph.D., Assistant Professor of Management Information Systems

Master of Science Degree in Information Systems

General Information

The objective of the Master of Science degree in information systems is to prepare students to take a senior position associated with the information systems field across all private industries and public sectors. With the broadening spectrum of the information systems field and subsequent rich set of career opportunities, there is an ongoing need to educate students so that they can take leadership positions in both established and emerging fields of information systems. To serve the student and industry needs effectively, the program is designed to balance management knowledge of business and technology, general technical knowledge in information systems, and domain knowledge in the special area selected by the student. Upon successful completion of the program, students will be competent in leading organizations in the evaluation and adoption of information systems and technologies for strategic advantage as well as in bridging the cultural and communication gaps that often exist between information systems and business function professionals.

Admission to the Degree Curriculum

In addition to meeting the requirements for classified graduate standing and the general requirements for master's degrees as described in Part Two of this bulletin, the student must have satisfactorily completed equivalents of the following courses as prerequisites:

B A 625	Financial and Management Accounting.....3
B A 627	Marketing.....3
B A 628	Operations and Supply Chain Management.....3

Notice of admission with classified graduate standing will be sent to the student upon the recommendation of the Fowler College of Business and the approval of the dean of the Division of Graduate Affairs.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Students concurrently enrolled in deficiency coursework may be given permission to take the comprehensive examination prior

to actual completion of all coursework. However, comprehensive examinations will not be evaluated and results will not be reported to the Division of Graduate Affairs until all deficiency coursework has been successfully completed. This may delay graduation.

Specific Requirements for the Master of Science Degree in Information Systems

(Major Code: 07021) (SIMS Code: 222335)

In addition to meeting the requirements for classified graduate standing as described above and the general requirements for master's degrees as described in Part Four of this bulletin, the student must complete a graduate program of at least 36 approved units including at least 27 units in 600- and 700-numbered courses. Up to nine units of coursework may be accepted as transfer credit. Not more than a total of three units in courses Management Information Systems 797 (Research) and Management Information Systems 798 (Special Study), may be accepted for credit toward the degree. With approval of the graduate adviser, a substitute course may be allowed in place of a required course after reviewing student credentials.

Required core courses:

IS Technology

Nine units selected from the following courses:

MIS 686	Enterprise Data Management.....3
MIS 687	Business Data Communications.....3
MIS 691	Decision Support Systems.....3
MIS 695	Business Systems Analysis and Design.....3
MIS 697	Project Planning and Development.....3
MIS 752	Seminar in Supply Chain and Enterprise Resource Planning.....3

IS Management and Analytics

Nine units selected from the following courses:

MIS 688	Information Systems and Strategies in Organizations.....3
MIS 748	Seminar in Applied Multivariate Analytics.....3
MIS 749	Business Analytics.....3
MIS 750	Strategic Project Management.....3
MIS 755	Information Systems Security Management.....3
B A 623	Statistical Analysis.....3

Culminating Experience

Three units selected from the following courses:

MIS 790	Directed Readings in Management Information Systems.....3
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OR

B A 799A	Thesis..... 3 (Cr/NC/RP)
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Career Track

Students select a career track and courses with the approval of the graduate adviser. Twelve units selected from the following courses:

MIS 515	Intermediate Programming for Business Applications.....3
MIS 705	Communication Strategies.....3
MIS 744	Seminar in Lean Six Sigma and Baldrige Quality Management.....3
MIS 753	Global Supply Chain Management.....3
MIS 754	Seminar in Operations Strategy.....3

Career track courses may include additional department and courses from outside the Fowler College of Business with the approval of the graduate adviser.

The Master of Science degree in information systems requires Plan A, Thesis or Plan B, directed readings in information systems

or a written comprehensive examination offered by the department. The program must be approved by the college and departmental adviser.

For regulations concerning grade point averages, final approval for the granting of the degree, award of the degree, and diplomas, refer to the basic requirements for the master's degree as described in Part Four of this bulletin.

Open Elective

Three units of elective graduate coursework.

Courses Acceptable for Master's Degree Program in Information Systems (MIS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

MIS 515. Intermediate Programming for Business Applications (3)

Prerequisite: Management Information Systems 315 or knowledge of one computer programming language. **Proof of completion of prerequisite required:** Copy of transcript.

Intermediate programming for business applications with Java, C#, or similar languages. Data structures, control structures, and program structures. Use of object-oriented features, classes, subclasses, and inheritance for modeling and processing of business information.

MIS 585. Fundamentals of Cybersecurity Management (3)

Prerequisite: Management Information Systems 483 or 687.

Cybersecurity risks, threats, and vulnerabilities. Technologies, procedures, and techniques to assess, control, detect, and remediate threats and vulnerabilities.

MIS 596. Contemporary Topics in Management Information Systems (1-3)

Prerequisites: Business major approved by the Fowler College of Business and consent of instructor.

Contemporary topics in management information systems. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

MIS 620. Electronic Business and Big Data Infrastructures (3)

Prerequisite: Business Administration 623.

Advanced data analysis and information technology concepts associated with e-business infrastructure and systems architecture.

MIS 680. Information Systems Hardware and Software (3)

Prerequisite: Classified graduate standing.

Computer architecture, programming languages, programming systems, and operating systems.

MIS 686. Enterprise Data Management (3)

Prerequisite: Classified graduate standing.

Database management technologies to host, secure, and manipulate enterprise data, information, and knowledge assets to create business value. Modeling tools for analyzing and specifying data requirements.

MIS 687. Business Data Communications (3)

Prerequisite: Classified graduate standing.

Deployment and management of technologies for integrating resources within and between organizations through secure data communications capabilities. Data network topologies, including wired, wireless, mobile and cloud architectures.

MIS 688. Information Systems and Strategies in Organizations (3)

Prerequisite: Classified graduate standing.

Managing information to create business value. Planning, organizing, and leading information systems initiatives. Relationship of data, information, and knowledge to strategic and operational decision making. Global aspects and ethical uses of information systems.

MIS 691. Decision Support Systems (3)

Prerequisite: Completion of MBA core or MS prerequisites.

Design, implementation, and integration of computerized decision support systems into business management. Problem representation, modeling, and simulation.

MIS 695. Business Systems Analysis and Design (3)

Prerequisite: Classified graduate standing.

Generating business value through analysis and design of information systems to solve problems and exploit opportunities. Feasibility studies, requirements definition, process and data modeling, development and implementation strategies for information systems.

MIS 696. Seminar in Selected Topics (3)

Intensive study in specific areas of information systems. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MIS 697. Project Planning and Development (3)

Prerequisite: Classified graduate standing.

Project development, planning, execution, and control for information systems. Information project development life cycle, structure project planning methodology, theories, techniques, and utilization of project management technologies.

MIS 705. Communication Strategies (3)

Prerequisite: Classified graduate standing.

Development of advanced written, oral, and interpersonal communication strategies for the business environment.

MIS 744. Seminar in Lean Six Sigma and Baldrige Quality Management (3)

Prerequisite: Business Administration 628.

Applications of lean principles, Six Sigma methodology, and Baldrige processes for business quality, agility, improvement. Advanced concepts, methods, lean tools, statistical quality tools for process improvement.

MIS 748. Seminar in Applied Multivariate Analytics (3)

Prerequisite: Business Administration 623.

Applications of various statistical techniques and design of experiments for business. Advanced ANOVA and Taguchi designs, multiple regression modeling methodologies, and multivariate techniques, such as factor analysis, judgment analysis, multiple discriminant analysis, multivariate analysis of variance, and canonical correlation.

MIS 749. Business Analytics (3)

Prerequisite: Business Administration 623.

Business analytics techniques for predictive modeling and customer segmentation. Applications include churn management, business experiments, cluster segmentation, and market basket analysis.

MIS 750. Strategic Project Management (3)

Prerequisite: Business Administration 628.

Managing projects and programs to implement business strategies. Project selection, programs, and portfolios; project organization; resource conflict and resolution; stakeholder management; project team management; project risk assessment and mitigation.

MIS 752. Seminar in Supply Chain and Enterprise Resource Planning (3)

Prerequisite: Business Administration 628.

Methodology, theory, and systems to plan and control supply chain and enterprise resources. Integrated processes of sales and operations planning, corporate accounting, materials requirement, procurement, capacity planning, and warehouse management in a simulated enterprise environment.

MIS 753. Global Supply Chain Management (3)

Prerequisite: Classified graduate standing.

Advanced concepts, method, and implementation of global supply chain strategies and management; global sourcing and supplier development; global logistic network and management; information technology and e-business for supply chain; supply chain design and optimization; performance metrics and measurements.

Management Information Systems

MIS 754. Seminar in Operations Strategy (3)

Prerequisite: Business Administration 628.

Strategic issues in operations and their integration with other functional areas. Includes operations strategy, product and process planning, experience curves, productivity measurements, and information technology implementation.

MIS 755. Information Systems Security Management (3)

Prerequisite: Classified graduate standing.

Information systems management. Focus on creation of a security plan for an organization to include risk analysis, security issues, security design, security plan, disaster recovery/business continuity, and threat analysis.

MIS 790. Directed Readings in Management Information Systems (3) Cr/NC

Prerequisite: Advancement to candidacy.

Preparation for the comprehensive examination for students.

MIS 797. Research (3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Research in the area of management information systems. Maximum credit six units applicable to a master's degree.

MIS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

For additional courses applicable to the Master of Science degree in Information Systems see:
Business Administration 623. Statistical Analysis



Marketing

IN THE FOWLER COLLEGE OF BUSINESS

OFFICE: Student Services East 3356
TELEPHONE: 619-594-5317 / **FAX:** 619-594-3272
WEBSITE: <https://business.sdsu.edu/marketing>

Faculty

Heather L. Honea, Ph.D., Associate Professor of Marketing,
Interim Chair of Department

George E. Belch, Ph.D., Professor of Marketing and Senior
Associate Dean of the Fowler College of Business

Michael A. Kartalija, Ph.D., Professor of Marketing, Emeritus

Massoud M. Saghafi, Ph.D., Professor of Marketing
(International Business Graduate Adviser)

Andrew M. Baker, Ph.D., Associate Professor of Marketing

Iana A. Castro, Ph.D., Associate Professor of Marketing

Claudiu V. Dimofte, Ph.D., Associate Professor of Marketing
(MBA Graduate Adviser)

Paula C. Peter, Ph.D., Associate Professor of Marketing

Erlinde Cornelis, Ph.D., Assistant Professor of Marketing

Gabriel R. Gonzalez, Ph.D., Assistant Professor of Marketing

Sunaina C. Marquez, Ph.D., Assistant Professor of Marketing

Morgan A. Poor, Ph.D., Assistant Professor of Marketing

Courses Acceptable for Master's Degree Programs in Business Administration (MKTG)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

MKTG 696. Seminar in Selected Topics (3)

Intensive study in specific areas of marketing. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MKTG 729. Contemporary Issues in Marketing Theory and Practice (3)

Prerequisite: Business Administration 627.

Issues in marketing theory and practice: examination and application of contemporary theories and techniques in relation to changes in marketing environment. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

MKTG 761. Product Innovation Management (3)

Prerequisite: Business Administration 627.

New product development and issues related to overall management of product innovation in context of entrepreneurial opportunity, start-up ventures and existing organizations. Focus on planning, design, and implementation of marketing strategy.

MKTG 762. Seminar in Integrated Marketing Communication (3)

Prerequisite: Business Administration 627.

Theory and application of integrated marketing communication to advertising, promotions, public relations/publicity, personal selling and direct marketing (including Internet).

MKTG 763. Seminar in Sales Management (3)

Prerequisite: Business Administration 627.

Sales management and personal selling decisions and strategies in business organizations.

MKTG 766. Seminar in Marketing Research (3)

Prerequisite: Business Administration 623 and 627.

Research methods and analysis for consumer and business marketing. Research design and implementation, use of secondary data sources, qualitative research, survey research, experimentation, and data analysis using statistical software, such as SPSS.

MKTG 768. Seminar in Internet Marketing and E-Business (3)

Prerequisite: Business Administration 627.

Theory and application of marketing utilizing the Internet and associated issues of electronic commerce.

MKTG 769. Seminar in International Marketing (3)

Prerequisite: Business Administration 627.

The impact of cultural, social, political, economic, and other environmental variables on international marketing systems and the decision-making process of multinational marketing operations.

MKTG 772. Strategic Brand Management (3)

Prerequisite: Business Administration 627.

Planning, managing, and evaluating brand strategies. Theories, models, concepts, and techniques used to build, measure, and manage brand equity. Marketing decisions faced by an organization in managing brands for long-term profitability.

MKTG 779. Advanced Marketing Strategy (3)

Prerequisites: Business Administration 627 and advancement to candidacy.

Development, implementation and evaluation of marketing strategy and planning. Role of marketing planning in overall corporate strategic planning process. Use of contemporary techniques and models in strategic planning process.

MKTG 790. Directed Readings in Marketing (3) Cr/NC

Prerequisite: Advancement to candidacy.

Preparation for the comprehensive examination for those students in the MSBA program under Plan B.

MKTG 797. Research (3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Research in the area of marketing. Maximum credit six units applicable to a master's degree.

MKTG 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Chemistry

IN THE DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY
IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 209

TELEPHONE: 619-594-5595 / **FAX:** 619-594-4634

E-MAIL: cheminfo@sdsu.edu

WEBSITE: <http://www.sci.sdsu.edu/chemistry>

Faculty

William G. Tong, Ph.D., Albert W. Johnson Distinguished Professor of Chemistry and Biochemistry, Chair of Department

Andrew L. Cooksy, Ph.D., Professor of Chemistry and Biochemistry

Douglas B. Grotjahn, Ph.D., Professor of Chemistry and Biochemistry (Graduate Admissions and Doctoral Adviser)

Tom Huxford, Ph.D., Professor of Chemistry and Biochemistry

William E. Stumph, Ph.D., Professor of Chemistry and Biochemistry, Emeritus

B. Mikael Bergdahl, Ph.D., Associate Professor of Chemistry and Biochemistry

Thomas E. Cole, Ph.D., Associate Professor of Chemistry and Biochemistry (Graduate Admissions Adviser and M.S./M.A. Graduate Adviser)

Christopher R. Harrison, Ph.D., Associate Professor of Chemistry and Biochemistry

John J. Love, Ph.D., Associate Professor of Chemistry and Biochemistry

David P. Pullman, Ph.D., Associate Professor of Chemistry and Biochemistry (Undergraduate Adviser)

Diane K. Smith, Ph.D., Associate Professor of Chemistry and Biochemistry

Manal A. Swairjo, Ph.D., Associate Professor of Chemistry and Biochemistry

Peter van der Geer, Ph.D., Associate Professor of Chemistry and Biochemistry

Erica Forsberg, Ph.D., Assistant Professor of Chemistry and Biochemistry

Jing Gu, Ph.D., Assistant Professor of Chemistry and Biochemistry

Jeffrey L. Gustafson, Ph.D., Assistant Professor of Chemistry and Biochemistry

Gregory P. Holland, Ph.D., Assistant Professor of Chemistry and Biochemistry

Byron W. Purse, Ph.D., Assistant Professor of Chemistry and Biochemistry

Christal D. Sohl, Ph.D., Assistant Professor of Chemistry and Biochemistry

Associateships

Graduate teaching associateships and graduate nonteaching associateships in chemistry and biochemistry are available to a limited number of qualified students. Graduate teaching associateships can be valuable for applicable degree programs, preparing students for a teaching career. Application forms and additional information may be secured from the Department of Chemistry and Biochemistry websites at <http://www.chemistry.sdsu.edu/forms> and <http://www.chemistry.sdsu.edu/graduate/degrees.php#GradAdmission>.

General Information

The Department of Chemistry and Biochemistry offers graduate study leading to the Master of Arts, the Master of Science and the Doctor of Philosophy degrees in chemistry. The Ph.D. degree is offered jointly with the Department of Chemistry and Biochemistry at the University of California, San Diego. Thesis research in all graduate programs is offered in the five traditional areas of chemistry, i.e., analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry.

The Department of Chemistry and Biochemistry at SDSU provides a substantial inventory of modern chemical instrumentation in support of teaching and research. Included are systems for the performance of nearly all major types of chemical separations; several GC- and two HPLC-mass spectrometric systems; 400, 500, and 600 MHz nuclear magnetic resonance (NMR) spectrometers; three FT infrared spectrometers; ultraviolet-visible spectrometric instruments for both atomic and molecular emission and absorption studies; electrochemical instrumentation for potentiometric, voltammetric and coulometric measurements; radiochemical instrumentation; laser systems for spectroscopy, covering UV to mid-IR wavelengths, and x-ray diffractometers for both small and macromolecules. Several groups have inert-atmosphere gloveboxes for conducting research on air- and moisture-sensitive compounds. The departmental computer lab has 25 personal computers (Mac and PC) for general use, and numerous research-grade computers are housed in individual laboratories. Access is also available to accounts on the College of Sciences Molecular Sciences Cluster and at the San Diego Supercomputer Center. In-house support staff includes NMR, analytical instrument technicians, and a well-equipped shop is available for machining, plastic working, welding, and other fabrications needs.

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

In addition, admissions materials must be submitted electronically. Three letters of reference are required from people who can comment on the applicant's academic and research abilities. Refer to <http://www.chemistry.sdsu.edu/graduate/degrees.php#GradAdmission> for requirements for direct and indirect admission to the doctoral program and admission to Master of Science and Master of Arts programs.

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

For information about the admissions process, visit the school website at <http://www.sci.sdsu.edu/chemistry>.

Section I. Master's Degree Programs

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as stated in Part Four of this bulletin. In addition, the student must pass orientation examinations in chemistry. These examinations should be taken during the first year in residence.

Specific Requirements for the Master of Arts Degree

(Major Code: 19051) (SIMS Code: 772602)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of 30 units which includes a major consisting of at least 24 units in chemistry from courses listed below as acceptable for master's degree programs. At least 15 of these units must be in 600- and 700-numbered courses. Chemistry 790 is required. At least 21 units of graded graduate courses (500-level or above) must be taken in at least three of the five disciplines within chemistry. These 21 units must be numbered below 790. A maximum of three units of Chemistry 797 or 798 may be used provided a written report is approved by course instructor. This degree is offered under the non-thesis, Plan B option, as described in Part Four of this bulletin. A written comprehensive examination is required.

Specific Requirements for the Master of Science Degree

(Major Code: 19051) (SIMS Code: 772601)

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin. The student must also complete a graduate program of 30 units which includes a major consisting of at least 24 units in chemistry from courses listed below as acceptable for master's degree programs. At least 15 of these units must be in 600- and 700-numbered courses. Chemistry 790, 791, 792, and 799A are required. A student must pass a final oral examination on the thesis.

Section II. Doctoral Program

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

General Information

(Major Code: 19051) (SIMS Code: 772603)

The cooperating faculties of the Department of Chemistry and Biochemistry at San Diego State University and the Department of Chemistry and Biochemistry at the University of California, San Diego, possess complementary specialties that enable the doctoral student to gain familiarity with most areas in chemistry and to find research activity and direction in a great variety of specific problems.

The entering student will be required to have a mastery of the subjects usually presented in the undergraduate curriculum: physical, organic, analytical, and inorganic chemistry. All applicants will be expected to have taken the equivalent of one year of physics and of mathematics at least through integral calculus. Students should be prepared to take placement examinations which will be administered by a joint committee and will cover the fields of inorganic, organic and physical chemistry.

On admission to the program, the student is guided by Requirements for the Doctoral Degree Program given in Part Four of this bulletin. Students will normally spend their first year in the program completing their year of residency at the University of California, San Diego. It is desirable for the student to complete the qualifying examination by the end of the fifth semester and to be advanced to candidacy.

Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral program, being available for direction of research and as departmental members of joint doctoral committees.

San Diego State University:

Graduate Advisers: Thomas E. Cole (master's degree programs, Douglas B. Grotjahn (doctoral program)

Graduate Admissions: Thomas E. Cole, Douglas B. Grotjahn

Committee Members: Bergdahl, Cole, Cooksy, Grotjahn, Gustafson, Harrison, Holland, Huxford, Love, Pullman, Purse, Smith, Sohl, Stumph, Tong, van der Geer

University of California, San Diego:

Vice Chair of Graduate Education: Judy Kim

Committee Members: Amaro, Baker, Bertram, Burkart, Cohen, Continetti, Crowell, Dennis, Devaraj, Dixon, Donoghue, Dorrestein, Figueroa, Fox, Galperin, G. Ghosh, P. Ghosh, Gianneschi, Guerrero, Hermann, Hoffmann, Jennings, Joseph, Kim, Komives, Kubiak, Kummel, Lindenberg, Magde, McCammon, Molina, Molinski, Muller, Nakagawa, Nicolaou, O'Connor, Opella, Paesani, Perrin, Prather, Rheingold, Sailor, Sawrey, Sinha, Tauber, Taylor, Tezcan, Theodorakis, Thiemens, Toor, Tor, Trogler, Tsien, Tukey, Viadiu, Wang, Weare, Whitesell, Yang

Courses Acceptable for Master's and Doctoral Degree Programs in Chemistry

(CHEM)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

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 520A-520B. Inorganic Chemistry (3-3)

Prerequisite: Chemistry 410A. Chemistry 520A is prerequisite to 520B.

Nature of chemical bond and an advanced systematic study of representative and transition elements and their compounds.

CHEM 531. Synthetic Organic Chemistry (3)

Prerequisites: Chemistry 432, 432L.

Modern methods, strategies, and mechanisms in advanced organic synthesis. Retrosynthetic analysis of and synthetic routes towards biologically important compounds.

CHEM 538. Polymer Science (3)

(Same course as Physics 538)

Prerequisites: Chemistry 200 or 202; and credit or concurrent registration in Chemistry 410B or Physics 360 or Mechanical Engineering 350.

Structure, synthesis, physical properties, and utilities of polymers and biopolymers.

CHEM 550. Instrumental Methods of Chemical Analysis (2)

Prerequisites: Chemistry 232, 232L, and credit or concurrent registration in Chemistry 410A; credit or concurrent registration in Chemistry 457 for undergraduate students only. Chemistry majors in the teaching credential program (BA in Applied Arts and Sciences) can replace Chemistry 457 with credit or concurrent registration in Chemistry 417. Chemical Physics majors can replace Chemistry 457 with credit or concurrent registration in Physics 311.

Theory and application of instrumental methods of chemical separation and analysis most frequently used in all disciplines of chemistry.

CHEM 560. General Biochemistry (3)

Prerequisites: Chemistry 232, 232L, and credit or concurrent registration in Chemistry 410A, 432, 432L.

The structure, function, metabolism, and thermodynamic relationships of chemical entities in living systems. Not open to students with credit in Chemistry 365.

CHEM 562. Intermediary Metabolism (2)

Prerequisite: Chemistry 365 or 560.

Catabolic and biosynthetic pathways of carbohydrate, lipid, amino acid, and nucleotide metabolism; TCA cycle, mitochondrial and chloroplast electron transport chains, ATP generation and their interactions and control. Not open to students with credit in Chemistry 361.

CHEM 563. Nucleic Acid Function and Protein Synthesis (2)

Prerequisite: Chemistry 365 or 560.

DNA replication, RNA transcription, RNA processing, and protein translation, including chemical mechanisms of synthesis and cellular mechanisms of regulating gene expression; genomics, recombinant DNA, and DNA topology. Not open to students with credit in Chemistry 361.

CHEM 564. Receptor Biochemistry and Protein Modification (2)

Prerequisite: Chemistry 365 or 560.

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)

One lecture and six hours of laboratory.

Prerequisite: Chemistry 560.

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. Topics in Environmental Chemistry (1-3)

Prerequisites: Chemistry 232, 232L, 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. Maximum credit three units.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

CHEM 695. Graduate Education in Chemistry (1-3)

Prerequisite: Concurrent registration in chemistry course at 500-level or higher.

Skills and knowledge needed for success in chemistry graduate program to include techniques for successful teaching, key safety protocols, ethical issues in teaching and research, department research programs, effective means of finding and communicating chemical information.

CHEM 696. Selected Topics in Chemistry (1-3)

Prerequisite: Graduate standing.

Intensive study in specific areas of chemistry. May be repeated with new content. Maximum credit six units. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CHEM 711. Chemical Thermodynamics (3)

Prerequisite: Chemistry 410B.

Chemical thermodynamics and introduction to statistical thermodynamics.

CHEM 712. Chemical Kinetics (3)

Prerequisite: Chemistry 410B.

Theory of rate processes; applications of kinetics to the study of reaction mechanisms.

CHEM 713. Quantum Chemistry (3)

Prerequisite: Chemistry 410B.

Quantum mechanics of atomic and molecular systems; applications to chemical bonding theory.

CHEM 714. Topics in Statistical Mechanics (3)

Prerequisites: Chemistry 410A, 410B, Mathematics 252.

Selected topics from the field of physical chemistry. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CHEM 730. Advanced Topics in Organic Chemistry (1-3)

Prerequisites: Chemistry 432, 432L.

Selected topics in organic chemistry. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CHEM 750. Advanced Topics in Analytical Chemistry (1-3)

Prerequisite: Chemistry 550.

Selected topics from the field of analytical chemistry. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CHEM 751. Separations Science (1-3)

Prerequisite: Chemistry 550.

Theoretical basis for separation techniques important in analytical chemistry. Chemical and physical interactions between components of different classes of separation systems, including selection and optimization of operational parameters.

CHEM 752. Mass Spectrometry (1-3)

Prerequisites: Chemistry 410B and 550.

Theory and practice in analysis of volatile and nonvolatile organic and inorganic compounds, basic design principles, theory of ionization processes; interpretation of mass spectra.

CHEM 753. Analytical Spectroscopy (1-3)

Prerequisite: Chemistry 550.

Theory and application of atomic and molecular absorption, emission and fluorescence methods. Modern optical instrumentation and methods of analysis. Nonlinear laser spectroscopic methods in chemical analysis.

CHEM 761. Biophysical Chemistry (3)

Prerequisite: Chemistry 560.

Biological macromolecules to include absorption/circular dichroism/emission spectroscopy, calorimetry, centrifugation, electrophoresis, light/small-angle x-ray/neutron scattering, mass spectrometry, and x-ray crystallography.

CHEM 763. Cellular Regulation (1-3)

Prerequisite: Chemistry 563.

Biochemistry of cellular regulatory mechanisms in eucaryotic cells. Regulation of gene transcription, in mRNA translation and post-translational processes, including the mechanism and regulation of intracellular protein turnover.

CHEM 765. Molecular Mechanisms of Human Disease (3)

Prerequisite: Chemistry 365 for biology majors, 560 for biochemistry and chemistry majors, or graduate standing.

Protein dysfunction in cancer, HIV, and prion disorders. Altered catalytic function to include drug design/pharmacokinetics/ADME, global kinetics fitting software, hydrogen-deuterium exchange mass spectrometry, pre-steady-state kinetics, x-ray crystallography, and structural manipulation programs.

CHEM 790. Seminar (1-3)

An intensive study in advanced chemistry. May not be substituted for Chemistry 791. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CHEM 791. Research Seminar (1)

Prerequisite: Consent of graduate adviser.

Presentation of current research by students working towards M.S. degrees. Must be completed before end of second year of study.

CHEM 792. Bibliography (1)

Exercise in the use of basic reference books, journals, and specialized bibliographies, preparatory to the writing of a master's project or thesis.

CHEM 795. Chemistry Seminar (1)

Prerequisite: Graduate standing.

Advanced study in all fields of chemistry. Maximum credit three units applicable to the master's degree or Ph.D. in chemistry.

CHEM 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of instructor.

Research in one of the fields of chemistry. Maximum credit six units applicable to a master's degree.

CHEM 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

CHEM 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

CHEM 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

DOCTORAL COURSES**CHEM 897. Doctoral Research (1-15) Cr/NC/RP**

Prerequisite: Admission to the doctoral program.

Independent investigation in the general field of the dissertation.

CHEM 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

Chicana and Chicano Studies

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 348

TELEPHONE: 619-594-6452 / **FAX:** 619-594-3195

E-MAIL: ccs@sdsu.edu

WEBSITE: <http://aztlan.sdsu.edu>

Faculty

María de la Luz Ibarra, Ph.D., Associate Professor of Chicana and Chicano Studies, Chair of Department

D. Emily Hicks, Ph.D., Professor of English and Comparative Literature and Chicana and Chicano Studies

Norma V. Iglesias Prieto, Ph.D., Professor of Chicana and Chicano Studies

Isidro D. Ortiz, Ph.D., Professor of Chicana and Chicano Studies [Senate Distinguished Professor]

Adelaida R. Del Castillo, Ph.D., Associate Professor of Chicana and Chicano Studies (Graduate Adviser)

Victoria C. González-Rivera, Ph.D., Associate Professor of Chicana and Chicano Studies

Roberto D. Hernández, Ph.D., Associate Professor of Chicana and Chicano Studies

Michael C. Domínguez, Ph.D., Assistant Professor of Chicana and Chicano Studies

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships in Chicana and Chicano studies are available to a limited number of qualified students. Application forms and additional information may be obtained from the graduate adviser in the Department of Chicana and Chicano Studies or at http://aztlan.sdsu.edu/ma_gta.html.

General Information

The Department of Chicana and Chicano Studies offers graduate study leading to the Master of Arts degree in Chicana and Chicano Studies.

The department has a distinguished faculty in the humanities and social sciences with special expertise in the U.S.-Mexican border and gender issues. The faculty's multidisciplinary orientation encourages students to explore many theoretical approaches grounded on a community-oriented and borderlands theory and praxis.

The Master of Arts degree provides advanced training for students who plan to make the master's degree their terminal degree as well as those who want to continue their studies at the doctoral level with an emphasis on Chicana and Chicano studies in a borderlands context.

The master's degree also provides advanced training for those who want to pursue professional degrees in the fields of public health, education, counseling, law, and social work. The master's degree provides students with the ability to work with professional competence in U.S.-Mexican environments involving populations of Mexican and Latin American origin in both the private and public sector.

Admission to Graduate Study

The application deadlines are posted on the Web or can be obtained from the graduate adviser. All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, students must demonstrate sufficient preparation for the program. This may include a bachelor's degree in Chicana and Chicano studies or a related discipline from an accredited institution or completion of equivalent academic preparation as determined by the Graduate Dean. Evaluation of a student's transcript will be made on an individual basis by the admissions committee to determine whether evidence of sufficient preparation can be demonstrated. A student whose preparation is deemed insufficient by the admissions committee may be admitted as conditionally classified and will be required to complete specified courses in addition to the minimum of 30 units required for the degree.

The grade point average required for admission to the master's program in Chicana and Chicano studies is 3.0 for the last 60 units (2.85 overall) of the student's undergraduate work plus satisfactory scores on the verbal and quantitative sections of the GRE.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Chicana and Chicano Studies.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Chicana and Chicano Studies

The following materials should be mailed or delivered to:

Department of Chicana and Chicano Studies

(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-6034

1. Two or more letters of reference from persons with direct knowledge of the applicant's academic ability;
2. Personal statement;
3. Research statement;
4. Writing sample (such as a research paper);
5. Curriculum vitae or resume.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 22131) (SIMS Code: 114910)

In addition to meeting the requirements for the Master of Arts degree, as described in Part Four of this bulletin, the student must complete at least 30 units of graduate coursework with a core of courses to include: Chicana and Chicano Studies 554, 601, 602, 605, 798, 799A.

The total program shall include a minimum of 15 units in 600- and 700-numbered courses. The remaining 12 units will be selected in consultation with the department graduate adviser.

Courses Acceptable for Master's Degree Program in Chicana and Chicano Studies (CCS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

CCS 548. Race and Ethnicity in United States History (3) (Same course as History 548)

Prerequisite: Upper division or graduate standing.

Race and ethnicity in America from colonial period through twentieth century to include historical construction of identity; colonization, slavery, state formation; labor, immigration, politics of whiteness; applicability of black/white binary of a multiethnic society.

CCS 554. United States-Mexico Transborder Populations and Globalization (3)

Prerequisite: Upper division or graduate standing.

An interdisciplinary analysis of the U.S.-Mexican border population. Demographic dynamics and social change in border communities. International migration and transmigration. Transborder families and transnational families. Gender, class, and racial systems in border communities.

CCS 596. Topics in Chicana and Chicano Studies (1-3)

Prerequisite: Consent of instructor.

Advanced topics in Chicana and Chicano studies. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

CCS 601. Foundations in Chicana and Chicano Scholarship Seminar (3)

Prerequisite: Graduate standing.

Philosophical, cultural, social thought, and intellectual traditions shaping Chicana and Chicano scholarship. Key paradigms of gender, ethnicity, and socio-economic change.

CCS 602. Methods of Inquiry in Chicana and Chicano Studies Seminar (3)

Prerequisite: Graduate standing.

Research methods in Chicana and Chicano studies including evaluation of reported findings. Emphasis on multidisciplinary perspectives.

CCS 605. Borderlands and Feminist Theories (3)

Prerequisite: Graduate standing.

Major theories pertaining to U.S.-Mexico borderlands and their gendered and sexual discourses: Chicana feminism, transnationalism, cultural studies, ethnography, narrative, cultural, citizenship, and multiculturalism.

CCS 696. Topics in Chicana and Chicano Studies (3)

Prerequisite: Graduate standing.

Key issues in Chicana and Chicano studies. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CCS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Independent study. Maximum credit six units applicable to a master's degree.

CCS 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

CCS 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

Child and Family Development

Refer to "Education" in this section of the bulletin.

City Planning

IN THE SCHOOL OF PUBLIC AFFAIRS

IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Professional Studies and Fine Arts 100

TELEPHONE: 619-594-6224 / **FAX:** 619-594-1165

WEBSITE: <http://spa.sdsu.edu>

Faculty

Sherry Ryan, Ph.D., Professor of Public Affairs, Interim Director of School of Public Affairs

Roger W. Caves, Ph.D., Professor of Public Affairs, Emeritus
(Graduate Coordinator)

Lawrence A. Herzog, Ph.D., Professor of Public Affairs, Emeritus
(Graduate Coordinator)

Louis M. Rea, Ph.D., Professor of Public Affairs, Emeritus

Bruce S. Appleyard, Ph.D., Associate Professor of Public Affairs

Megan B. Welsh, Ph.D., Assistant Professor of Public Affairs

General Information

The School of Public Affairs offers graduate study leading to the Master of City Planning degree. Research facilities provided include the Institute of Public and Urban Affairs and the Public Administration Center.

The San Diego metropolitan community affords significant internship opportunities for the graduate student in federal, state, and local government agencies.

Master of City Planning Degree

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. The applicant must possess a bachelor's or higher degree in sociology, geography, political science, economics, architecture, or landscape architecture, or any fields related to planning. Students with degrees other than those listed may be allowed to enter the program under appropriate conditions. In the event that deficiencies occur in a student's background and training, the graduate committee will examine the student's past record and recommend a program to make up the deficiencies.

Students seeking admission to the graduate program in city planning which leads to the Master of City Planning degree should address their inquiries to the coordinator of the program. As there are specific requirements for the program it is not sufficient merely to file the general university admission forms. Students are admitted to the program in the fall semester each year.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Public Affairs.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

- Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree.
- GRE scores (<http://www.ets.org> SDSU institution code 4682);
- English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Public Affairs

The following admissions materials must be submitted electronically before April 1:

- Letters of recommendation (two letters from professors or employers);
- Unofficial transcripts;
- Current curriculum vitae or resume;
- Personal statement (500 word essay) providing background and general interest, reasons for choosing this graduate degree. Include professional aspirations and special areas of interest in planning.

For information regarding the admissions process, visit the school website at <http://spa.sdsu.edu>.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy, as described in Part Four of this bulletin and be recommended by faculty. In order to be recommended for advancement, a student must have achieved a grade point average of 3.0 in 24 units of city planning courses.

Specific Requirements for the Master of City Planning Degree

(Major Code: 02061) (SIMS Code: 666917)

In addition to meeting the requirements for classified graduate standing for the purpose of pursuing the Master of City Planning degree, the student must complete an approved program of study consisting of at least 48 units of approved 500-, 600-, and 700-numbered courses, with no more than nine units of 500-level courses, to include:

- Complete the following core courses:

C P 625	Quantitative Techniques in Urban Planning.....	3
C P 630	Seminar in Urban Planning Implementation	3
C P 640	Seminar in Urban Planning Theory	3
C P 660	City Planning and Geographic Information Systems Applications	3
C P 670	History of Urban Planning	3
C P 675	Seminar in Environmental Policy and Planning.....	3
C P 690	Seminar in Land Use Planning Principles and Techniques.....	3
C P 695	Computer Applications for Urban Design	3
C P 700	Urban Design and Land Use Planning Studio	3
- Twelve units of 600- and 700-numbered courses in planning elective courses, readings and research.
- C P 796 Internship in Urban Planning..... 3-6 (Cr/NC)
- P A 604 Methods of Analysis in Public and Urban Affairs..... 3
- Other electives to complete program selected with the approval of adviser.
- Students in Plan B are required to pass comprehensive written examinations in general city planning and in two areas of study. Students who have approval of the graduate adviser to pursue Plan A must include on their programs City Planning 799A, Thesis.

At least 39 units must be completed in residence at San Diego State University, and at least 24 units of program courses shall be enrolled in and completed after advancement to candidacy.

Not more than a total of nine units in courses 797 and 798 will be accepted for credit toward the degree.

Courses Acceptable for Master's Degree Program in City Planning (C P)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

C P 625. Quantitative Techniques in Urban Planning (3)

Prerequisite: Public Administration 604.

Advanced techniques for analyzing problems in city planning; emphasis on computer applications.

C P 630. Seminar in Urban Planning Implementation (3)

Analysis of the content and function of zoning, subdivision regulation, codes, capital budgeting, urban renewal, model cities, and other implementation methods and programs.

C P 635. Seminar in Housing and Housing Policy (3)

Study, definition and analysis of housing needs and problems. Public policies and programs addressed to housing issues. Alternative solutions and the role of the private and public sectors.

C P 640. Seminar in Urban Planning Theory (3)

Prerequisite recommended: City Planning 630.

Alternative theories of planning and organization of the planning function. Emphasis on conceptual foundations, relationship to governmental structure, decision making, and ideological and ethical orientations.

C P 660. City Planning and Geographic Information Systems Applications (3)

ArcGIS mapping software extensively utilized in city planning. Proficiency necessary to use software in professional context for work required by public and/or private sector planning employment.

C P 670. History of Urban Planning (3)

History of urban development and of the field of urban planning.

C P 675. Seminar in Environmental Policy and Planning (3)

Theoretical elements of environmental policy, sustainability; application to urban planning. Green site planning, urban design, and transportation policy.

C P 690. Seminar in Land Use Planning Principles and Techniques (3)

Two lectures and three hours of laboratory.

Prerequisite: City Planning 660.

Land-use and physical planning principles and techniques at the regional, community, specific and subdivision planning levels.

C P 695. Introductory Urban Design Studio (3)

One lecture and six hours of laboratory.

Acquisition of computer graphics skills to successfully communicate urban design ideas and plans. Focus on laboratory work and the production of planning related graphic pieces.

C P 700. Urban Design and Land Use Planning Studio (3)

Two lectures and three hours of laboratory.

Prerequisites: City Planning 690 and 695.

Preparation of land-use plans and planning reports at the regional, community and subdivision levels.

C P 710. Seminar in Theories of Urban Design (3)

Perspectives and methodologies of contemporary urban design and its contribution toward improving the quality of the physical, social and economic environment.

C P 730. Seminar in Urban Transportation Planning (3)

Issues, techniques and practices in urban transportation planning with general emphasis on interrelations between transportation and land use planning.

C P 796. Internship in Urban Planning (3-6) Cr/NC

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.

C P 797. Research in Urban Planning (3) Cr/NC/RP

Prerequisite recommended: Consent of director of city planning program.

Research in one of the areas of urban planning. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

C P 798. Special Study (1-3) Cr/NC/RP

Prerequisite recommended: Consent of staff.

To be arranged with director of city planning and instructor. Individual study. Maximum credit six units applicable to a master's degree.

C P 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

C P 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

C P 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Civil, Construction, and Environmental Engineering

Refer to "Engineering" in this section of the bulletin.

Communication

IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Communication 237

TELEPHONE: 619-594-8512 / **FAX:** 619-594-0704

E-MAIL: comm.ma@sdsu.edu

WEBSITE: <http://communication.sdsu.edu>

Faculty

Heather E. Canary, Ph.D., Professor of Communication, Director of School

Wayne A. Beach, Ph.D., Professor of Communication

George N. Dionisopoulos, Ph.D., Professor of Communication

Patricia J. Geist-Martin, Ph.D., Professor of Communication

[Senate Distinguished Professor]

Kurt J. Lindemann, Ph.D., Professor of Communication

(Graduate Adviser)

William B. Snively, Ph.D., Professor of Communication, Emeritus, and Interim Associate Vice President for Academic Affairs, Faculty Advancement

Brian H. Spitzberg, Ph.D., Professor of Communication

[Senate Distinguished Professor]

Luke A. Winslow, Ph.D., Associate Professor of Communication

Yea-Wen Chen, Ph.D., Assistant Professor of Communication

Charles E. Goehring, Ph.D., Assistant Professor of Communication

Lourdes S. Martinez, Ph.D., Assistant Professor of Communication

Rachael A. Record, Sc.D., Assistant Professor of Communication

Matthew W. Savage, Ph.D., Assistant Professor of Communication

General Information

The School of Communication offers graduate study leading to the Master of Arts degree in communication. The School of Communication is committed to quality graduate and undergraduate education in the field of human communication. We prepare students for civic life, professional careers, and further graduate study. We are committed to cutting edge research and instructional innovation which advances understandings of culture, health, institutions, interaction, politics, relationships, and rhetoric in everyday life. The school is dedicated to serving San Diego State University, the College of Professional Studies and Fine Arts, and the diverse communities in the urban region in which we live and work.

Priority is given to the development of graduate students' expertise and skills in the following areas:

- Mastery of knowledge and abilities in communication theory and practice;
- Completion of major project that prepares students to become change agents in the career paths they are pursuing;
- Collaboration in research and instructional teams;
- Participation in fieldwork in diverse settings relevant to the social issues being investigated;
- Presentation of scholarly papers at professional conferences;
- Co-authorship of research articles with faculty and other graduate students;
- Preparation for a teaching career.

Graduate Teaching Associate Program

Graduate Teaching Associate (GTA) positions are available to a limited number of qualified students. This valuable opportunity includes:

- Training in teaching the basic oral communication course and helping first-year undergraduates to improve their communication skills;
- A monthly stipend that helps to offset the expenses of graduate school.

Instructions for applying for a Graduate Teaching Associate position are available at http://communication.sdsu.edu/?page_id=9.

The deadline for applying for a GTA position is the same deadline as applying for admission to the graduate program (February 1 for fall semester).

Admission to Graduate Study

The M.A. degree in Communication admits students only in the fall semester. Application packages must be received and completed by previous February 1.

In addition to meeting the general requirements for admission to the university with classified graduate standing as outlined in Part Two of this bulletin, students applying for admission to the Master of Arts degree in communication with a specialization in communication studies are evaluated according to the following criteria:

1. Undergraduate major or minor in communication, speech communication, or a related discipline. Those lacking adequate undergraduate preparation may be admitted conditionally to the program and are required to take one or more proficiency courses identified, as determined by the graduate adviser. Proficiency courses do not count toward the 30 units of a student's graduate program.
2. Minimum grade point average of 3.00 (when A equals 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).

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Communication.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
2. GRE scores (<http://www.ets.org> SDSU institution code 4682). All applicants must post a Graduate Record Examination (GRE) verbal score of 150 or higher; a GRE quantitative score of 142 or higher; a combined GRE verbal and quantitative score of 300 or higher; and a GRE writing assessment (GRE-W) of level 4 or higher;
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

For international applicants for whom English is not their first language, English language paper scores of 550 (or 213 online).

School of Communication

The following admissions materials must be submitted electronically. For information regarding the admissions process, visit the school website at <http://communication.sdsu.edu>.

Cover Letter

- Indicate that you applied online, paid your fee, and submitted official transcripts and scores to Graduate Admissions;
- Indicate whether you have established California residency;
- Indicate if you are applying for a Graduate Teaching Associate (GTA) position and describe the details of any teaching experience. If you did not major in communication as an undergraduate, indicate any communication coursework that might prepare you for teaching.

Application Support Materials

1. Letters of Recommendation: Three letters of recommendation from academic or professional references that speak to your ability to succeed in graduate studies. We prefer that at least two of the letters be written by professors who can speak to your academic background and capabilities.
2. Personal Statement: Personal statement of purpose that (a) describes your interest in communication, (b) describes your undergraduate and/or professional preparation for graduate studies in the communication program, (c) articulates your personal and/or career objectives that graduate studies in communication will help you pursue, and (d) optional: describes your interest in a Graduate Teaching Associate position, addressing how this desire relates to your interest in communication, your past academic and professional experience, and your career objectives.
3. Photocopies of Transcripts and Scores: It is essential to send photocopies of your transcripts and GRE scores (and English language scores, if applicable) to the School of Communication. Eventually, we will receive the official transcripts and scores from Graduate Admissions; however, we may be in a position to review your materials and make admission and GTA decisions before the materials arrive from the Graduate Admissions office.
4. Curriculum vitae or resume
5. Writing sample that you believe well represents your writing capabilities (e.g., a paper written for an undergraduate course).

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. Students must satisfactorily complete at least 12 units of courses listed on the official program of study with a minimum grade point average of 3.0 and be recommended by the graduate adviser.

Specific Requirements for the Master of Arts Degree

(Major Code: 06011) (SIMS Code: 661129)

In addition to meeting the requirements for the Master of Arts degree as described in Part Four of this bulletin, the student must complete a minimum of 30 units in courses acceptable in master's degree programs. At least 18 units of the total program must be in courses numbered 600-799. Approval of the graduate adviser is required for all courses numbered 500-599. Students may take up to three units of graduate coursework in departments other than the School of Communication or three units of special study. Students may petition a second course outside the School of Communication. Students may not repeat any course in their program of study without consent of the graduate adviser and instructor.

The M.A. in communication provides advanced study of language, interaction, and communication in relational, organizational, cultural, medical, and societal contexts. Individuals in this specialization explore communication as an interactive process across diverse social relationships, activities and contexts. Please see the School of Communication website for the most current information: <http://communication.sdsu.edu>.

Students may elect Plan A (Thesis) by completing Communication 799A (3 units) or Plan B (Comprehensive Examination) by completing three additional units of 600-700 level coursework in the School of Communication and pass the Comprehensive Examination in Communication.

Graduate Courses. The remaining 27 units of the program must include Communication 601 with a grade of B or better; six units selected from Communication 610, 620, 640, 660; 12 units selected from Communication 610, 620, 640, 660, 665, 696, 705, 706, 707, 715, 721, 735, 740, 750, 751, 752, 755, 771, 783, 786, 792, 798; and six units selected with the approval of the graduate adviser. No more than three units may be taken as special study (Communication 798).

Courses Acceptable for Master's Degree Program in Communication (COMM)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NOTE: Communication courses numbered 500 to 599 are not acceptable for the Master of Arts degree in Communication.

COMM 508. Media Literacy (3)

Prerequisites: Communication 300 and 350. Admission to a major or minor 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 555. Conflict Management Communication (3)

Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication.

Approaches to conflict communication in international, societal, group, institutional, and interpersonal contexts.

COMM 596. Selected Topics (1-4)

Prerequisite: Senior standing or above.

Specialized study in selected topics. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

COMM 601. Seminar: Theory and Research Methods in Communication (3)

Prerequisite: Admission to communication studies specialization graduate program in the School of Communication.

Communication phenomena, theoretical background, and research techniques to navigate variation among approaches; intellectual history of communication theory.

COMM 610. Seminar: Advanced Communication Theory (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Advanced methods of theory construction, explication, and evaluation in communication, including alternatives to traditional communication science.

COMM 620. Seminar: Quantitative Methods in Communication Research (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Advanced applications of survey methodology; evaluation of experimental and quasi-experimental procedures; methods of statistical inference and research design; application of computer statistical package.

COMM 640. Seminar: Critical and Rhetorical Methods in Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Methodologies for textual, rhetorical, semiotic, narrative, and reception research. Use of case studies, focus groups, and interpretive methods.

COMM 660. Seminar: Ethnographic Methods in Communication Research (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Historical and contemporary assumptions of ethnographic inquiry, including research design, data collection, and analysis of field materials.

Communication

COMM 665. Seminar: Conversation Analysis in Communication Research (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Assumptions and practices of conversation analysis. Repeated examinations of diverse recordings and transcriptions as resources for analyzing distinctive, methodological, and ordered nature of communication contexts.

COMM 696. Special Topics (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Intensive study in specific areas of communication. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree only with approval of the graduate adviser.

COMM 705. Seminar: Performance Studies (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Critical examination of embodiment of written and spoken human communication in variety of social and cultural contexts and practices to include ritual, play, narrative, storytelling, folklore, and popular media.

COMM 706. Seminar: Organizational Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Functions, forms, and consequences of communicating in organizations in a changing work world. Topics such as culture groups, networks, leadership, conflict, and decision making.

COMM 707. Seminar: Instructional Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Communication relationships in instructional setting, teacher verbal and nonverbal immediacy, student communication apprehension, as a function of instructional modalities, and cultural diversity issues.

COMM 715. Seminar: Nonverbal Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Nonverbal human behavior, including body movements, gesture, gaze, touch, and integration of vocal and nonvocal activities in human interaction.

COMM 721. Seminar: Health Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Personal, interactional, cultural, and political dimensions of communication about health and illness. Assumptions, practices, and structures of discourse across boundaries of family, social, and institutional contexts. May be repeated with new content. Maximum credit six units.

COMM 735. Seminar: Relational Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Contemporary theory and research addressing interpersonal verbal and nonverbal communication in intimate and non-intimate relationships.

COMM 740. Seminar: Rhetorical Theory (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Different perspectives on rhetoric and human communication explored to better understand historical and contemporary theories of rhetoric.

COMM 750. Seminar: Selected Topics: Communication Contexts (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Intensive study in specific contextual forms of communication. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit nine units applicable to a master's degree in communication.

COMM 751. Seminar: Gender and Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Socially constructed gender through communication. Contexts include interpersonal relationships, public discourse, and organizations.

COMM 752. Seminar: Dark Side of Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Communication considered destructive or unethical yet functional, productive or productive and ethical yet dysfunctional, destructive or evil, or ideologically ignored by current inquiry; including jealousy, infidelity, coercion, deception, aggression, and manipulation.

COMM 755. Seminar: Public Address (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Case studies of rhetorical events which illustrate rhetorical theory. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

COMM 771. Seminar: Intercultural Communication (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Analysis of cultural influences on human communication acts. Emphasis on cultural values, perception, social organizations, language, and nonverbal codes.

COMM 783. Seminar: Medical Interaction (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Communication in medical interviewing using conversational analysis of doctor-patient interactions.

COMM 786. Seminar: Communication and Leadership (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Theory and research on role and function of communication behavior in exercise of leadership in contemporary organizations and public life.

COMM 792. Seminar: Persuasion (3)

Prerequisite: Credit or concurrent registration in Communication 601.

Contemporary theories and models of persuasion, methods of assessing persuasive effect, and analysis of research literature.

COMM 798. Special Study (1-3) Cr/NC/RP

Contract required. Arranged with graduate coordinator in area of study. Individual study. Maximum credit six units applicable to a master's degree.

COMM 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

COMM 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

Comparative Literature

Refer to "English" in this section of the bulletin.

Computational Science

IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 206H

TELEPHONE: 619-594-3430 / **FAX:** 619-594-2459

WEBSITE: <http://www.csrc.sdsu.edu>

Associated Faculty for Computational Science

José E. Castillo, Ph.D., Professor of Mathematics, Program Director

Peter V. Blomgren, Ph.D., Professor of Mathematics

Ricardo Carretero, Ph.D., Professor of Mathematics

Andrew L. Cooksy, Ph.D., Professor of Chemistry and Biochemistry

Robert A. Edwards, Ph.D., Professor of Computer Science

Juanjuan Fan, Ph.D., Professor of Statistics

Gustaaf B. Jacobs, Ph.D., Professor of Aerospace Engineering

Calvin W. Johnson, Ph.D., Professor of Physics

Sunil Kumar, Ph.D., Professor of Electrical and Computer Engineering

Richard A. Levine, Ph.D., Professor of Statistics

Joseph M. Mahaffy, Ph.D., Professor of Mathematics

Ralph-Axel Müller, Ph.D., Professor of Psychology

Shangping Ren, Ph.D., Professor of Computer Science

Forest L. Rohwer, Ph.D., Professor of Biology

Eric L. Sandquist, Ph.D., Professor of Astronomy

Anca Mara Segall, Ph.D., Professor of Biology

Satish Kumar Sharma, Ph.D., Professor of Electrical and Computer Engineering

Samuel S.P. Shen, Ph.D., Albert W. Johnson Distinguished Professor of Mathematics

Usha Sinha, Ph.D., Professor of Physics

Satchi Venkataraman, Ph.D., Professor of Aerospace Engineering

Fridolin Weber, Ph.D., Albert W. Johnson Distinguished Professor of Physics

Tao Xie, Ph.D., Professor of Computer Science

Robert W. Zeller, Ph.D., Professor of Biology

Ashkan Ashrafi, Ph.D., Associate Professor of Electrical and Computer Engineering

Barbara Ann Bailey, Ph.D., Associate Professor of Statistics

Arlette R.C. Baljon, Ph.D., Associate Professor of Physics

Jianwei Chen, Ph.D., Associate Professor of Statistics

Luciano Demasi, Ph.D., Associate Professor of Aerospace Engineering

Bo-Wen Shen, Ph.D., Associate Professor of Mathematics

Mauro Tambasco, Ph.D., Associate Professor of Physics

Wei Wang, Ph.D., Associate Professor of Computer Science

Joaquin Camacho, Ph.D., Assistant Professor of Mechanical Engineering

Christopher W. Curtis, Ph.D., Assistant Professor of Mathematics

Jerome E. Gilles, Ph.D., Assistant Professor of Mathematics

Ke Huang, Ph.D., Assistant Professor of Electrical and Computer Engineering

Parag Katira, Ph.D., Assistant Professor of Mechanical Engineering

Lyuba Pavlovna Kuznetsova, Ph.D., Assistant Professor of Physics

Xiaobai Liu, Ph.D., Assistant Professor of Computer Science

Antoni Santolaria Luque, Ph.D., Assistant Professor of Mathematics

Huu Ngoc Duy Nguyen, Ph.D., Assistant Professor of Electrical and Computer Engineering

Kenneth M. Nollett, Ph.D., Assistant Professor of Physics

Nicholas J. Shikuma, Ph.D., Assistant Professor of Biology

Naveen K. Vaidya, Ph.D., Assistant Professor of Mathematics

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to Computational Science.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all post-secondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Science Degree in Computational Science

The following materials should be submitted electronically to the Computational Science Research Center at San Diego State University. Refer to the Graduate Admissions website (<http://arweb.sdsu.edu/es/admissions/grad/programs/index.html>) for application instructions. Consult the department website (http://www.csrc.sdsu.edu/masters_checklist.html) for details concerning required materials.

1. Three letters of recommendation from persons in a position to judge academic ability;
2. Personal statement of motivating interest for the program and briefly describe research interests and educational goals.
3. Copies of unofficial transcripts from all postsecondary institutions attended.

Ph.D. Degree in Computational Science

Students must apply and be admitted to University of California, Irvine (UCI) and SDSU; however, prospective students must apply to SDSU first. Qualified applicants will then be given application instructions to UCI. Admission will be granted to a limited number of qualified students. Completed applications are due by February 15 for the fall term, although later applications may be allowed at the discretion of the admissions committee. The admissions review process may include personal interviews of applicants.

The following materials should be submitted electronically to the Computational Science Research Center at San Diego State University. Refer to the Graduate Admissions website (<http://arweb.sdsu.edu/es/admissions/grad/programs/index.html>) for application instructions. Consult the department website (http://www.csrc.sdsu.edu/masters_checklist.html) for details concerning required materials.

1. Three letters of recommendation from former or current professors, supervisors, or other appropriate persons;
2. Applicant's statement of purpose, explaining their interest in the program;
3. Current resume;
4. Joint doctoral program in computational science application form;
5. Copies of unofficial transcripts from all post-secondary institutions attended.

Section I. Master's Degree Programs

General Information

The computational science program offers a Master of Science degree. It is offered in collaboration with the Departments of Biology, Chemistry and Biochemistry, Computer Science, Geological Sciences, Mathematics and Statistics, and Physics, in the College of Sciences.

The requirements for entering this program consists of one year of computer programming such as C or Fortran, competence in linear algebra and calculus, with background equivalent to a bachelor's degree in the area of interest. Graduates of this program will have a solid foundation in a field of science and the additional training and experience required of computational science professionals. Fundamental science, in one of the specializations, dominates the program. This is supplemented with additional courses in computational science. Real scientific problem-solving is emphasized, through a thesis that could be done in conjunction with a carefully managed extramural research program. A significant proportion of the students in this program will be employed in positions related to their area of studies, thereby providing opportunities for extramural support. Graduates will be prepared for positions in scientific research, scientific programming, and software engineering.

Associateships

Graduate teaching associateships and graduate nonteaching associateships may be available from the individual departments. See the appropriate department of this bulletin for more information.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. If the undergraduate preparation of the students in the desired specialization is deficient, they will be required to take courses for the removal of the deficiency. These courses, taken by students as a classified graduate student, are in addition to the minimum 30 units required for the master's degree. A complete student program must be approved by the computational science program director. The requirements for entering this program consist of one year of computer programming (e.g., C or Fortran), competence in linear algebra and calculus, and a background equivalent to a bachelor's degree in the area of interest.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 07992) (SIMS Code: 773001)

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin. The student must also complete a graduate program of 30 units, of which at least 15 units must be in 600- and 700-level courses excluding 799A to include:

Required core courses (15 units):

CS 503	Scientific Database Techniques	3
OR		
CS 514	Database Theory and Implementation	3
OR		
COMP 607	Computational Database Fundamentals	3
COMP 526	Computational Methods for Scientists	3
COMP 536	Computational Modeling for Scientists	3
OR		
MATH 636	Mathematical Modeling	3
COMP 605/		
CS 605	Scientific Computing	3
COMP 670	Seminar: Problems in Computational Science	3

Elective courses (9 units selected from):

COMP 521	Computational Science	3
OR		
MATH 542	Introduction to Computational Ordinary of Differential Equations	3
CS 559	Computer Vision	3
OR		
CS 589	Computational Imaging	3
OR		
E E 657	Digital Image Processing	3
COMP 626	Applied Mathematics for Computational Scientists	3
OR		
MATH 693B	Advanced Numerical Methods: Computational Partial Differential Equations	3
COMP 604	Computational and Applied Statistics	3
OR		
STAT 670A	Advanced Mathematical Statistics	3

Research (3 units):

COMP 797	Research	3 (Cr/NC/RP)
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Thesis (3 units):

COMP 799A	Thesis	3 (Cr/NC/RP)
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Substitution of core courses is permitted based on disciplines related to student's specialization with prior consent of program director. With prior consent of the director, 600-level courses from other departments may be used as electives, based on the student's background and research interest.

A complete student program must be approved by the computational science program director.

Concentration in Data Science

(Major Code: 07992) (SIMS Code: 773011)

The concentration focuses on data science. Students entering the program should have background in modeling, programming, simulation, or statistics. The student must complete a graduate program of 30 units to include the following:

Required core courses (15 units):

CS 503	Scientific Database Techniques	3
OR		
CS 514	Database Theory and Implementation	3
OR		
COMP 607	Computational Database Fundamentals	3
COMP 526	Computational Methods for Scientists	3
COMP 536	Computational Modeling for Scientists	3
OR		
MATH 636	Mathematical Modeling	3
COMP 605/		
CS 605	Scientific Computing	3
COMP 670	Seminar: Problems in Computational Science	3

Elective courses (9 units selected from):

CS 553	Neural Networks	3
OR		
CS 559	Computer Vision	3
OR		
CS 589	Computational Imaging	3
OR		
E E 657	Digital Image Processing	3
CS 653	Data Mining and Knowledge Discovery	3
STAT 670A	Advanced Mathematical Statistics	3
STAT 670B	Advanced Mathematical Statistics	3
STAT 672	Nonparametric Statistics	3
STAT 673	Time Series Analysis	3
STAT 700	Data Analysis Methods	3
STAT 702	Data Mining Statistical Methods	3

Research (3 units):

COMP 797	Research	3 (Cr/NC/RP)
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Project (3 units):

COMP 798	Special Study	3 (and comprehensive examination)
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Substitution of core courses is permitted based on disciplines related to student's specialization with prior consent of program director. With prior consent of the director, 600-level courses from other departments may be used as electives, based on the student's background and research interest. A complete student program must be approved by the computational science program director.

Concentration in Professional Applications

(Offered through the College of Extended Studies)

(Major Code: 07992) (SIMS Code: 773010)

No students admitted to program at this time.

The concentration focuses on professional applications of computational science. To enter the program, students must possess a bachelors degree with a strong mathematical background. The student must complete a graduate program of 40 units to include the following:

Required core courses (24 units):

CS 503	Scientific Database Techniques	3
OR		
CS 514	Database Theory and Implementation	3
OR		
COMP 607	Computational Database Fundamentals	3
COMP 526	Computational Methods for Scientists	3
COMP 536	Computational Modeling for Scientists	3
OR		
MATH 636	Mathematical Modeling	3
COMP 605/		
CS 605	Scientific Computing	3
COMP 670	Seminar: Problems in Computational Science	3

Additional required core courses for the concentration (11 units):

COMP 589	Computational Imaging	3
COMP 602	Organizational Development	2
COMP 626	Applied Mathematics for Computational Scientists	3
COMP 671	Problem Solving Techniques	3

Electives (8 units with consent of program director)

Research (3 units):

COMP 797	Research	3 (Cr/NC/RP)
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Project (3 units):

COMP 798	Special Study	3 and comprehensive examination
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Substitution of core courses is permitted based on disciplines related to student's specialization with prior consent of program director. With prior consent of the director, 600-level courses from other departments may be used as electives, based on the student's background and research interest. A complete student program must be approved by the computational science program director.

Section II. Doctoral Program

<http://www.csrc.sdsu.edu/doctoral.html>

General Information

San Diego State University and University of California, Irvine (UCI), offer jointly a doctoral program in computational science. The participating faculties are from the College of Engineering and College of Sciences at SDSU and the Donald Bren School of Information and Computer Science and Samueli School of Engineering at UCI.

Admission to the Degree Curriculum

In order to be considered for admission into the program, applicants must fulfill the general requirements for admission with graduate standing to both institutions. Applicants must have received a bachelor's or master's degree in a science, technology, engineering, or mathematics discipline from an accredited institution with standards equivalent to SDSU's and UCI's. Applicants with degrees in other areas may be admitted conditionally and may be advised to take additional courses. Applicants must have an undergraduate or master's grade point average of 3.0. Successful applicants must demonstrate they are well qualified to pursue, with distinction, advanced study and research.

Faculty Advisers and Doctoral Committee: Upon admission to the program, the student will be assigned a faculty mentor from either institution. After completing the first year of study and receiving a progress evaluation, the student will select a doctoral adviser. The doctoral adviser will aide in the development of a suitable course of study for the student, administer the student's qualifying examination, monitor progress of student research and administer the defense of the doctoral dissertation.

Specific Requirements for the Doctor of Philosophy Degree

(Major Code: 07992) (SIMS Code: 773006)

The program consists of a minimum of 62 units of coursework, independent study, and research (including transfer credit) distributed as follows. Any deviation from the program of studies must be done with the approval of the program director.

- Minimum 18 units of graduate level coursework at SDSU (computational science program);
- Minimum 20 units of graduate level coursework at UCI;
- Minimum 24 units of research, practicum, dissertation, and graduate seminar at either institution;
- Required participation in the Summer Research Survey.

Additional units of research, practicum, dissertation, and graduate seminar (COMP 800 at SDSU) may be taken at either institution. A student entering the program with a Bachelor of Science degree will satisfy the initial 18 unit requirement by completing a Master of Science degree in computational science at SDSU, then take 20 units of coursework at UCI. Students with an advanced degree other than computational science will complete appropriate courses and a research project to obtain the equivalent of an M.S. degree in computational science.

San Diego State University Courses. Students are required to take 18 units at San Diego State University. There is a core course requirement that must be satisfied with students taking the following courses (9 units):

MATH 636	Mathematical Modeling.....	3
COMP 605/		
CS 605	Scientific Computing.....	3
COMP 670	Seminar: Problems in	
	Computational Science.....	3

The additional units taken to make up the 18 unit requirement at SDSU are electives to be selected with the approval of the program director at SDSU and UCI.

University of California, Irvine Courses. Students are required to take 20 units at UCI. There is a core course requirement that must be satisfied with students selecting 12 units at UCI. Refer to the program's website for a detailed listing of UCI courses at <http://ou-csrc.sdsu.edu/programs/phd>.

The additional units taken to make up the 20 unit requirement at UCI are electives to be selected with approval of the program director at SDSU and UCI.

Research Units at SDSU. Computational Science 897, 898, 899.

Qualifying Examination. The qualifying examination shall consist of a term research project supervised by a faculty mentor. The topic of the project will be approved by the program directors in consultation with the faculty mentor. The student will be required to prepare a written account of the research work performed and of its results, and offer an oral presentation before the members of the advisory committee. This level of evaluation will be equivalent and coincide with the computational science Master of Science degree final examination.

Practicum and Doctoral Research. Dissertation research will be carried out here at one of the two institutions, at an industry, or at a national laboratory. In the latter two cases, its denomination is practicum.

Dissertation Proposal. The dissertation proposal shall be submitted by the student to the advisory committee no later than upon completion of the student's third academic year in the program. The dissertation proposal will take the form of a scientific grant proposal to a major funding agency. The proposal will describe the research project that the student intends to carry out, on which the doctoral dissertation will be based. The student will also be required to deliver an oral presentation before the computational science advisory committee. Upon successful completion of the presentation, the student will be recommended for advancement to candidacy for the doctoral degree.

Doctoral Dissertation. Upon completion of the dissertation research, the candidate will submit the dissertation to the advisory committee. The candidate will also present a public oral defense of the dissertation. Before the presentation, an account of the work performed will be submitted for publication to a peer-reviewed, international research journal. Upon successful completion of the presentation, the candidate's advisory committee will make a recommendation to the graduate deans.

Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral program and are available for direction of research and as members of joint doctoral committees.

San Diego State University:

Program Director: José E. Castillo

Committee Members: Ashrafi, Bailey, Baljon, Blomgren, Camacho, Carretero, Castillo, Chen, Cooksy, Curtis, Demasi, Edwards, Fan, Gilles, Huang, Jacobs, Johnson, Katira, Kumar, Kuznetsova, Levine, Liu, Luque, Mahaffy, Müller, Nguyen, Nollett, Paolini, Pullman, Ren, Rohwer, Salamon, Sandquist, Segall, Sharma, Shen, Shikuma, Sinha, Tambasco, Vaidya, Venkataraman, Wang, Weber, Xie, Zeller

University of California, Irvine:

Program Director: Wayne Hayes

Committee Members: Allard, Baldi, Burke, Cinquin, Dabdub, Furche, Hayes, Kruggel, Lander, Liu, Lowengrub, Luo, Mjolsness, Mobley, Mortazavi, Mukamel, Nicolau, Nguyen, Rangel, Read, Rignot, Rupert, Stern, Sun, Swindlehurst, Thornton, Tobias, Vrugt, Wang, Whiteson

Associateships

Graduate teaching associateships are available at SDSU and UCI and are awarded on a competitive basis.

Advanced Certificate in Professional Computational Science

(Offered through the College of Extended Studies)

(SIMS Code: 773005)

The Advanced Certificate in Professional Computational Science is designed for private and public industry professionals as well as graduate students who wish to learn professional and technical computational skills in their fields to include tools available for scientific application development (particularly those targeted as parallel and distributed systems), scientific visualization and database query applications, simulation and modeling packages, computational templates such as Matlab and Maple, and the choice of appropriate hardware resources for different classes of computational problems. Credit earned through the Advanced Certificate in Professional Computational Science can be applied toward the units required to obtain the Master of Science degree in Computational Science with a Concentration in Professional Applications.

The advanced certificate requires 12 units to include Computational Science 526, 589, and six additional units with consent of the program director. Each course must be completed with a grade of B (3.0) or better.

Courses Acceptable for Master's and Doctoral Degree Programs in Computational Science (COMP)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

COMP 521. Computational Science (3)

Prerequisite: Mathematics 151.

Matrices and linear equations, solving ordinary differential equations (ODEs), vector spaces, closed form solutions, qualitative theory, Eigenvalues, linear maps, linear differential equations, other techniques, nonlinear systems, higher dimensional systems.

COMP 526. Computational Methods for Scientists (3)

Prerequisites: Mathematics 252 and 254.

Translating mathematical problem descriptions to computer programs. Introduction to Unix system.

COMP 536. Computational Modeling for Scientists (3)

Prerequisite: Mathematics 151.

Models, computational tools, errors, system dynamics, growth, stability, multicompartment models, Euler's, Runge-Kutta methods, system dynamics, infectious disease, enzyme kinetics, environmental cycles, cardiovascular system, metabolism, global warming, empirical models, HIV, population distributions, diffusion, HPC.

COMP 596. Advanced Topics in Computational Science (1-4)

Prerequisite: Consent of instructor.

Selected topics in computational 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

COMP 602. Organizational Development (2)

Prerequisite: Graduate standing.

Contemporary organizational and leadership theory and practice through personal reflection, team assessment and feedback, and case analysis. Nature of change, forces for change, and impact of change in organizations and individuals. Organizational processes, structures and cultures, and effect on organization's performance.

COMP 605. Scientific Computing (3)

(Same course as Computer Science 605)

Prerequisites: Graduate standing and knowledge of the C programming language or FORTRAN or Computational Science 526.

Parallel programming using message passing to include high performance computing and MPI language extensions.

COMP 607. Computational Database Fundamentals (3)

Prerequisite: Graduate standing.

Data-processing techniques, software, database design, implementation, and manipulation.

COMP 626. Applied Mathematics for Computational Scientists (3)

Prerequisites: Mathematics 252 and 254.

Linear algebra, differential equations and stability theory, and analytical methods for partial differential equations within the context of computational science.

COMP 670. Seminar: Problems in Computational Science (3)

Prerequisite: Graduate standing.

Applications of computational science in solving problems using a variety of methods. Problems selected from biology, chemistry, physics, and other fields.

COMP 671. Problem Solving Techniques (3)

Prerequisite: Graduate standing.

Data abstraction and problem solving skills.

COMP 696. Selected Topics in Computational Science (3)

Prerequisite: Graduate standing.

Intensive study in specific areas of computational science. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

COMP 705. Advanced Parallel Computing (3)

(Same course as Computer Science 705)

Prerequisite: Computational Science 605 [or Computer Science 605].

Libraries, numerical methodology, optimization tools, visualization of results, MPI and GPU computing models. Applications conducted on CSRC student cluster and NSF XSEDE computing resources.

COMP 797. Research (1-3) Cr/NC/RP

Prerequisite: Six units of graduate level computational science courses.

Research in computational science. Maximum credit six units applicable to a master's degree.

COMP 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with program director and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

COMP 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

Computational Science

COMP 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

COMP 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

DOCTORAL COURSES

COMP 800. Seminar (3) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Topics in different areas of computational science.

COMP 810. Colloquium in Computational Science (1) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Discussions on advances in computational science research. Course to be taken every semester.

COMP 896. Practicum (1-9) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent investigation in general area of field of dissertation. Conducted in industry or national laboratory under faculty supervision. Maximum credit 36 units.

COMP 897. Doctoral Research (1-9) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent investigation in general field of dissertation. Maximum credit 36 units.

COMP 898. Doctoral Special Study (1-3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Individual study leading to study and research required for doctoral dissertation.

COMP 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the student plans to graduate.



Computer Science

IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 413

TELEPHONE: 619-594-6191

WEBSITE: <http://www.cs.sdsu.edu>

Faculty

Shangping Ren, Ph.D., Professor of Computer Science,
Chair of Department

Leland L. Beck, Ph.D., Professor of Computer Science, Emeritus

John L. Carroll, Ph.D., Professor of Computer Science

Robert A. Edwards, Ph.D., Professor of Computer Science

Marie A. Roch, Ph.D., Professor of Computer Science

Mahmoud Tarokh, Ph.D., Professor of Computer Science

Faramarz Valafar, Ph.D., Professor of Computer Science

Tao Xie, Ph.D., Professor of Computer Science

Carl F. Eckberg, Ph.D., Associate Professor of Computer Science
(Graduate Adviser)

Wei Wang, Ph.D., Associate Professor of Computer Science

Roger E. Whitney, Ph.D., Associate Professor of Computer
Science (Graduate Adviser)

Xiaobai Liu, Ph.D., Assistant Professor of Computer Science

Associateships

Graduate teaching associateships in computer science are available to a limited number of qualified students. Application blanks and additional information may be secured from the chair of the Department of Computer Science.

General Information

The Department of Computer Science offers graduate study leading to the Master of Science degree in computer science. The areas in which courses are offered include software, systems, architecture, artificial intelligence, and computer science theory.

Master's level research projects are available in the following areas of computer science: artificial intelligence, databases, high performance computing, web application, distributed systems, multiprocessing, operating systems, graphics, neural networks, formal languages, numerical methods, robotics, signal processing, and computational complexity. Specialized laboratories exist for microprocessor architecture, graphics, and robotics and intelligent machines.

A master's degree in computer science provides education and creative experience to prepare graduates for advanced professional employment in industry or government, or for college-level teaching.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In addition, for fully classified graduate standing students must complete Computer Science 560 and 570 or equivalent. Classified graduate standing is prerequisite to all 600- and 700-level courses; conditional graduate standing is possible. Students convicted of plagiarism or cheating on examinations may lose classified graduate standing.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials to SDSU Graduate Admissions.

Refer to section on Admission to Postbaccalaureate and Graduate Study in this bulletin for further details.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree in Computer Science

(Major Code: 07011) (SIMS Code: 773801)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must meet the following departmental requirements:

1. Complete a minimum of 30 units of 500-, 600-, and 700-level courses selected with the approval of the adviser. One to three units of Computer Science 798 may be added to the 30 minimum units required, when used for an internship or practical training. All programs must include at least 24 units chosen from computer science and mathematics.
2. Students must select Plan A (Thesis) or Plan B (Comprehensive Examinations) as described below. (Selecting Plan A is contingent upon having a minimum 3.5 GPA in courses applicable to the master's degree, and upon finding a full time computer science faculty member to supervise the thesis. The number of students that can be accommodated in Plan A is limited by faculty resources.)

Plan A (Thesis)

(Major Code: 07011) (SIMS Code: 773803)

A total of 30 units of 500-, 600-, 700-level courses as follows:

- a. At least 15 units from Computer Science 600- and 700-level courses excluding Computer Science 797, 798, 799A. A 600-level electrical engineering course or one of the mathematics courses listed below in the ALC area of study may replace one 600-level computer science course.
- b. Students select two areas of study from the areas listed below, and take at least two courses from each area.
- c. Three units of Thesis (799A), and an oral presentation and defense.

With approval of the graduate adviser, students may take Computer Science 798 as preparation for Computer Science 799A (Thesis).

Plan B (Comprehensive Examinations)

A total of 30 units of 500-, 600-, 700-level courses as follows:

- At least 18 units from Computer Science 600- and 700-level courses excluding Computer Science 797, 798, 799A. A 600-level electrical engineering course or one of the mathematics courses listed below in the ALC area of study may replace one 600-level computer science course.
- At least one course from four of the following five areas of study: PFL, OSA, ALC, ISR, and DSW.
- Comprehensive examinations in three subjects selected from automata and formal languages; database management systems; data structures and algorithms; intelligent systems and robotics; numerical analysis; operating systems and architecture; programming languages. Under certain conditions, students may substitute additional coursework for one or two of the three required examinations, or replace two examinations with an approved project. Further information is available on the department website.

Full-time international students on Plan B who have completed all their required coursework must show progress in at least two areas of study each semester (until they have completed all but one). This can be done by either taking qualifying examinations or additional coursework, which must be preapproved by the graduate adviser.

Areas of Study

(PFL) Programming and Formal Languages: Computer Science 520, 532, 537, 540, 583, 605 [or Computational Science 605], 620, 635, 636, 705.

(OSA) Operating Systems and Architecture: Computer Science 572, 574.

(ALC) Algorithms and Complexity: Computer Science 558, 562, 600, 609, 660, 662, 664; Mathematics 525, 625, 626, 667, 668, 693A, 693B.

(ISR) Intelligent Systems and Robotics: Computer Science 550, 553, 556, 559, 581, 582, 653, 656, 657, 682; Statistics 702.

(DSW) Distributed Systems and Web Technology: Computer Science 503, 514, 545, 546, 547, 576, 580, 615, 645, 646, 648, 666.

Advanced Web and Mobile Applications Development Certificate

(Offered through the College of Extended Studies)

(SIMS Code: 773806)

The advanced certificate in Web and Mobile Applications Development provides students with the specialized knowledge that is important in the development of Web and mobile computer applications. Students will study and gain experience with the languages and frameworks that are most commonly used in developing these applications, with the design of user interfaces and software systems, and with associated topics such as networking, hosting infrastructure, and security. They will also learn the fundamental principles on which these topics are based, so that they will be prepared for the new technologies that are constantly being developed.

The admission requirement is a bachelor's degree in computer science or a closely related field. Individuals with an equivalent knowledge of the background materials through work or self-study may be accepted into this program at the discretion of the program director.

The certificate requires completion of at least four courses (12 units) with the approval of the program adviser selected from Computer Science 545, 546, 547, 645, 646, 648. At least two of the four courses must be at the 600-level.

For more information, contact the Department of Computer Science at <http://www.cs.sdsu.edu>.

Courses Acceptable for Master's Degree Program in Computer Science (CS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

CS 503. Scientific Database Techniques (3)

Prerequisites: Computer Science 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 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 530. Systems Programming (3)

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 537. Programming for GIS (3)

Prerequisite: Computer Science 310 or Geography 484.

Customization of Geographic Information Science application development platforms with emphasis on object oriented programming and component architecture. Prominent examples are Map Objects with Visual Basic, Map Objects with Java. Considerable programming effort required, especially in Graphical User Interface development.

CS 540. Software Internationalization (3)

Prerequisite: Computer Science 310.

Principles, techniques, and resources for design and implementation of software localizable to multiple languages and/or cultures, including detailed examination of internationalization features provided by one or more widely used modern programming languages.

CS 545. Introduction to Web Application Development (3) (Offered only in the College of Extended Studies)

Prerequisite: Computer Science 310.

World Wide Web application development. XHTML, CSS, Javascript, client-side and server-side scripting, PHP and CGI programming with Perl. Application integration with SQL database systems.

CS 546. Human Computer Interfaces (3)

(Offered only in the College of Extended Studies)

Prerequisites: Computer Science 310 and 320.

Common interface idioms and support available for loose integration into aesthetically appealing and practical, efficient interaction between humans and machine. Editors, browsers, games, networking sites, posting boards, etc. Principles that are ubiquitous among tools for HCI development.

CS 547. Programming and Scripting Languages for Web Applications (3)

(Offered only in the College of Extended Studies)

Prerequisites: Computer Science 310 and 320.

Principles and practice of dynamic and scripting and functional languages used in web applications. Basic language concepts, data structures in dynamic languages, code structure, code quality, testing, string manipulation, dynamic code generation.

CS 550. Artificial Intelligence (3)

Prerequisites: Computer Science 310 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 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)

Prerequisites: Computer Science 310 and Mathematics 245.

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 562. Automata Theory (3)

Prerequisite: Mathematics 245.

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 570. Operating Systems (3)

Prerequisites: Computer Science 310, 370, and knowledge of the C programming language.

File systems, processes, CPU scheduling, concurrent programming, memory management, protection. Relationship between the operating system and underlying architecture. Not acceptable for the M.S. degree in Computer Science.

CS 572. Microprocessor Architecture (3)

Prerequisites: Computer Science 370 and knowledge of the C programming language.

Architecture of state-of-the-art microprocessor. Internal pipeline, internal cache, external cache, and memory management. Programming a uniprocessor. Communication among computers in a distributed environment. Architecture and programming of a multiprocessor system.

CS 574. Computer Security (3)

Prerequisites: Computer Science 310, Mathematics 245, 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 576. Computer Networks and Distributed Systems (3)

Prerequisite: Credit or concurrent registration in Computer Science 570.

Basic networking concepts to include 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 581. Computational Linguistics (3)

(Same course as Linguistics 581)

Prerequisite: Computer Science 320 or Linguistics 571 or 572.

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 583. 3D Game Programming (3)

Prerequisite: Computer Science 310 or equivalent programming background.

Development of programming skills using software environment of a game engine and its scripting language. 3D concepts for game play, modeling, and programming. Roles needed in software development team. Contrast creation of original 3D object models for game world with incorporation of pre-created generic models.

CS 596. Advanced Topics in Computer Science (1-4)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

NOTE: Classified graduate standing is expected for all graduate courses.

CS 600. Methods in Bioinformatics, Medical Informatics, and Cheminformatics (3)

(Same course as Bioinformatics and Medical Informatics 600)

Prerequisites: Three units of calculus and graduate standing.

Computer, mathematical, and engineering techniques for bioinformatics, cheminformatics, and medical informatics. Techniques used in microarray data analysis, gene and protein sequence alignment, and classification techniques in medical decision making.

CS 605. Scientific Computing (3)

(Same course as Computational Science 605)

Prerequisites: Graduate standing and knowledge of the C programming language or FORTRAN or Computational Science 526.

Parallel programming using message passing to include high performance computing and MPI language extensions.

CS 609. Computational Genomics and Bioinformatics (3)

(Same course as Bioinformatics and Medical Informatics 609)

Prerequisite: Computer Science 503 or 514.

Biological and genomic data. Application of computational algorithms to biological questions. Post-genomic techniques in annotation and comparison of microbial and eukaryotic genome sequences.

CS 615. Spatial Database (3)

Prerequisite: Computer Science 514. Recommended: Computer Science 560.

Strategies for databases in which locations are prominent. Access strategies such as quadrees and R-trees. Topological and other spatial extensions to query languages. Spatial models like non-intersection. Oracle spatial features. Object and object-oriented databases.

CS 620. Formal Languages and Syntactic Analysis I (3)

Prerequisites: Computer Science 310, 320 or 520, and 562.

Regular, context-free, context-sensitive, and general grammars. Corresponding machine model recognizers. Chomsky and Greibach normal forms. Closure, decidability and undecidability properties.

CS 635. Advanced Object-Oriented Design and Programming (3)

Prerequisite: Knowledge of an object-oriented programming language.

Advanced topics in object-oriented programming and design, code reuse, building class libraries, quality of objects, coupling, cohesion, design patterns, distributed objects.

CS 636. Management of Software Development (3)

Prerequisite: Computer Science 532.

Managing software projects. Modern software management process models. Project planning, cost estimation, tracking and control, staffing, risk management, and software process improvement.

CS 645. Advanced Web Application Development (3) (Offered only in the College of Extended Studies)

Prerequisite: Computer Science 545.

XHTML, CSS, JavaScript, client-side and server-side scripting, Java servlets, JSP, Frameworks. Server systems and development tools appropriate for large, complex project. SQL database via JDBC.

CS 646. Mobile Application Development (3) (Offered only in the College of Extended Studies)

Prerequisite: Computer Science 560.

Design and implementation of applications for smart mobile phones and mobile devices. May be repeated with new content. See *Class Schedule* for specific content, including device types. Maximum credit six units applicable to a master's degree.

CS 648. Advanced Topics in Web and Mobile Applications (3) (Offered only in the College of Extended Studies)

Prerequisite: Computer Science 545.

Advanced technologies, issues, and concepts in Web and mobile software development. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CS 653. Data Mining and Knowledge Discovery (3)

Prerequisite: Computer Science 320.

Foundations of data mining and knowledge discovery. Diverse methods, algorithms, design techniques and application practice including statistical and Bayesian methods, pattern recognition, clustering, knowledge discovery in data sets, machine learning, neural networks, rough and fuzzy sets.

CS 656. Advanced Robotics (3)

Prerequisite: Computer Science 556.

Computer-based techniques for low-, medium-, and high-level robot control including sequential and parallel schemes for robot dynamics, robot programming and robot task planning.

CS 657. Intelligent Systems and Control (3)

Prerequisite: Computer Science 530 or 560.

Genetic and evolutionary algorithms, genetic programming and applications, fuzzy logic and approximate reasoning, rule-based inference engines, intelligent path planning and applications to robotics, dynamic systems and their simulations using Simulink, conventional control and intelligent control, intelligent agents, autonomous and multi-agent systems.

CS 660. Combinatorial Algorithms and Data Structures (3)

Prerequisite: Computer Science 560.

Algorithm design techniques. Network flow and matching. Complexity analysis. NP-completeness, reductions among NP-complete problems. Approximation algorithms for NP-complete problems such as the traveling salesman problem.

CS 662. Theory of Parallel Algorithms (3)

Prerequisites: Computer Science 560 and Mathematics 254.

Models for parallel computation. Parallel algorithms for several common problems including sorting, searching, graph problems, and matrix problems. Complexity of parallel algorithms. Lower bounds on parallel complexity.

CS 664. Theory of Computability (3)

Prerequisite: Computer Science 562.

Turing machines and other formal models of computation. Recursive function theory. The Ackermann function. Solvable and unsolvable problems.

CS 666. Advanced Distributed Systems (3)

Prerequisite: Computer Science 570.

Design of distributed systems including abstract models, algorithms, and case studies of real-world systems. Group research related to distributed systems.

CS 682. Speech Processing (3)

Prerequisites: Graduate standing, Computer Science 310, Mathematics 254, Statistics 551A.

Algorithms and methods for processing of speech. Feature extraction, human speech production and perception, pattern recognition for acoustic and language modeling as applied to automatic speech and speaker recognition.

CS 696. Selected Topics in Computer Science (3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of computer science. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CS 705. Advanced Parallel Computing (3)

(Same course as Computational Science 705)

Prerequisite: Computer Science 605 [or Computational Science 605].

Libraries, numerical methodology, optimization tools, visualization of results, MPI and GPU computing models. Applications conducted on CSRC student cluster and NSF XSEDE computing resources.

CS 790. Practicum in Teaching of Computer Science (1) Cr/NC

Prerequisite: Award of graduate teaching associateship in computer science.

Supervision in teaching computer science. Lecture writing, style of lecture presentation and alternatives, test and syllabus construction, and grading system. Not applicable to an advanced degree. Required for first semester GTA's.

CS 792. Curricular Practical Training (1) Cr/NC

Prerequisites: Approval of graduate adviser and SDSU International Student Center.

Supervised work experience. Maximum credit three units applicable to a master's degree in computer science.

CS 797. Research (1-3) Cr/NC/RP

Prerequisites: Six units of graduate level computer science courses.

Research in computer science. Maximum credit six units applicable to a master's degree.

CS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

CS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

CS 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

CS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

For additional courses useful to computer scientists, see:

Mathematics 523	Mathematical Logic
Mathematics 541	Introduction to Numerical Analysis and Computing
Mathematics 542	Introduction to Computational Ordinary of Differential Equations

Counseling and School Psychology

Refer to "Education" in this section of the bulletin.



Criminal Justice and Criminology

IN THE SCHOOL OF PUBLIC AFFAIRS AND THE DEPARTMENT OF SOCIOLOGY
IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS AND
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Professional Studies and Fine Arts 100
TELEPHONE: 619-594-1948 / **FAX:** 619-594-1165
WEBSITE: <http://spa.sdsu.edu>

Faculty

Sherry Ryan, Ph.D., Professor of Public Affairs,
Interim Director of School of Public Affairs
Shawn T. Flanigan, Ph.D., Professor of Public Affairs
Ruth Xiaoru Liu, Ph.D., Professor of Sociology
Joshua M. Chanin, Ph.D., J.D., Associate Professor of Public Affairs
Jung Min Choi, Ph.D., Associate Professor of Sociology
Paul J. Kaplan, Ph.D., Associate Professor of Public Affairs
Michael A. McCall, Ph.D., Associate Professor of Sociology
Jeffrey S. McIlwain, Ph.D., Associate Professor of Public Affairs
Alan C. Mobley, Ph.D., Associate Professor of Public Affairs
Dana M. Nurge, Ph.D., Associate Professor of Public Affairs
(Graduate Coordinator)
Megan B. Welsh, Ph.D., Assistant Professor of Public Affairs

Assistantships

Graduate research assistantships, graduate teaching assistantships, and scholarships are available to a limited number of qualified students. Please speak with school director for more information. This program can prepare students for a career in college teaching.

General Information

The School of Public Affairs in the College of Professional Studies and Fine Arts, in conjunction with the Department of Sociology in the College of Arts and Letters, offer graduate study leading to the Master of Science degree in criminal justice and criminology.

Students pursuing a Master of Science degree in criminal justice and criminology will master criminological theory, quantitative and qualitative research methods, and will learn to apply theory and methods to real-world research and policy issues. Students will also examine criminal justice policy issues at the local, state, national, and international levels.

Research facilities include the Institute of Public and Urban Affairs and the Social Science Research Laboratory. The San Diego metropolitan region affords significant research and internship opportunities for graduate students in federal, state, and local agencies as well as in community-based or non-profit organizations.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. Students must also satisfy the following requirements: (1) a 3.0 grade point average in the undergraduate major and a 3.00 overall grade point average; (2) an acceptable score on the GRE General Test (verbal and quantitative); (3) two letters of recommendation from faculty or practitioners who are familiar with the student's academic work and/or employment performance; and (4) a 500-word essay addressing professional and educational goals and stating how a Master of Science degree in criminal justice and criminology will help to achieve these goals.

Students are expected to have undergraduate proficiency in the following four areas: (1) basic knowledge of the criminal justice system; (2) basic knowledge of criminological theory (crime causation); (3) statistics; and (4) research methods.

Students whose preparation is deemed insufficient by the graduate adviser may be conditionally admitted and will be required to complete specified courses in addition to the minimum required for this degree.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Public Affairs as specified below.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Public Affairs

The following admissions materials must be submitted electronically before April 1:

1. Letters of recommendation (two letters from persons familiar with the applicant's academic ability);
2. Personal statement (500 word essay) of professional and educational goals.

For information regarding the admissions process, visit the school's website at <http://spa.sdsu.edu>.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 22091) (SIMS Code: 662001)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree in Part Four of this bulletin, students must complete an officially approved course of study as outlined below. Students must earn a minimum grade point average of B (3.0) in the master's program and no less than a B- grade in each core course. All students in this program will complete a thesis or project (Plan A) or comprehensive written examination (Plan B).

Graduate Program (33 units total)

Substantive Courses (15 units required):

CJ 601	Seminar in the Administration of Criminal Justice.....	3
CJ 602	Seminar in Comparative Criminal Justice System.....	3
CJ 603	Seminar in Community and Restorative Justice.....	3
CJ 604	Seminar in Criminal Justice and Urban Administration.....	3
CJ 605	Seminar in Juvenile Justice and Youth Violence	3

Research Methods Courses (6 units required):

PA 604	Methods of Analysis in Public and Urban Affairs.....	3
PA 606	Seminar in Quantitative Approaches to Public Administration.....	3

Criminal Justice and Criminological Theory (3 units required):

SOC 743	Seminar in Criminology and Criminal Justice Theory	3
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Electives (6 units required):

CJ 570	Organized Crime: Domestic and International Perspectives	3
CJ 796	Internship in Criminal Justice	3-12 (Cr/NC)
PA 660	Administration and Public Policy Development	3
SOC 601	Advanced Classical Social Theory: Core Course	3
SOC 608	Advanced Qualitative Methods: Core Course	3
SOC 796	Field Practicum	3 (Cr/NC)
	Criminal Justice or Sociology 500- to 700-level course	3

Culminating Experience (3 units required):

Students must complete either a thesis or a comprehensive examination to graduate.

Plan A (Thesis):

CJ 799A	Thesis	3 (Cr/NC/RP)
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Plan B (Comprehensive Examination):

CJ 797	Research in Criminal Justice	3 (Cr/NC/RP)
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Courses Acceptable for Master's Degree Program in Criminal Justice and Criminology (C.J.)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES**CJ 510. Contemporary Issues in Law Enforcement (3)**

Prerequisite: Criminal Justice 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.

CJ 520. Prosecutorial Function (3)

Prerequisite: Criminal Justice 300.

Prosecutor's function at local, state, and federal levels and in selected foreign nations, including appraisal of proposed national standards and goals for prosecutors.

CJ 531. Probation and Parole (3)

Prerequisite: Criminal Justice 300.

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.

CJ 540. Applied Planning, Research, and Program Evaluation in Criminal Justice (3)

Prerequisite: Criminal Justice 300.

Application of planning, research, program development, and evaluation principles to field of criminal justice.

CJ 543. Community Resources in Criminal Justice (3)

Prerequisite: Criminal Justice 300.

Present and probable roles of public and private agencies and volunteers in criminal justice.

CJ 550. Study Abroad: Criminal Justice (3)

Prerequisites: Criminal Justice 301 and upper division standing.

Selected topics in comparative criminal justice. Course taught abroad. May be repeated once with new content. See *Class Schedule* for specific content. Maximum credit six units.

CJ 570. Organized Crime: Domestic and International Perspectives (3)

Prerequisite: Criminal Justice 300.

Interdisciplinary analysis of organized crime's impact on criminal justice and public policy on both domestic and international levels.

CJ 571. Drugs: Domestic and International Perspectives (3)

Prerequisite: Upper division major or graduate standing.

Interdisciplinary social science analysis of illicit drug use, markets, and trafficking. Comparative assessment of the efforts of state and non-state actors to regulate, counter, and disrupt illicit drug use, markets, and trafficking.

CJ 572. Dark Networks, Crime, and Security (3)

Prerequisites: Upper division major or graduate standing and Criminal Justice 570.

Advanced interdisciplinary social science analysis of social networks engaged in criminal activity and intelligence and security policies, as well as the actors that comprise these networks. Social network and structural analysis methods.

CJ 596. Selected Topics in Criminal Justice (1-3)

Prerequisite: Criminal Justice 300.

Selected current topics in criminal justice. May be repeated with new content. 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.

GRADUATE COURSES**CJ 601. Seminar in the Administration of Criminal Justice (3)**

Prerequisite: Criminal Justice 301.

Administrative problems of criminal justice systems.

CJ 602. Seminar in Comparative Criminal Justice System (3)

Prerequisite: Criminal Justice 301.

The criminal justice system as both cause and consequence of social change; nature of institutional change with application to criminal justice system components.

CJ 603. Seminar in Community and Restorative Justice (3)

Community and restorative justice movement from local, national, and international perspectives. Theories, policies, practices, and research associated with community and restorative justice.

CJ 604. Seminar in Criminal Justice and Urban Administration (3)

Prerequisite: Criminal Justice 540.

Influences on crime control and criminal justice process of actions by urban administrators, legislators and private sector in areas such as housing, education, public health and transportation, and urban development policies.

CJ 605. Seminar in Juvenile Justice and Youth Violence (3)

Prerequisite: Graduate standing.

Juvenile justice system in U.S. and throughout the world. Responses to delinquency and youth violence. History and foundations of juvenile court, juvenile justice reforms, context, causes, and correlates of youth violence and gang involvement, including programs and policies designed to address these problems.

CJ 696. Selected Topics in Criminal Justice (3)

Prerequisite: Criminal Justice 601 or 602.

Analysis of contemporary issues of major import to the administration of criminal justice. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CJ 791. Seminar in Readings in Criminal Justice (3)

Prerequisites: Six graduate units in criminal justice.

Selected readings in the literature of criminal justice.

CJ 796. Internship in Criminal Justice (3-12) Cr/NC

Prerequisite: Consent of instructor.

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 12 units.

CJ 797. Research in Criminal Justice (3) Cr/NC/RP

Prerequisite: Consent of coordinator of criminal justice.

Research in one of the areas of criminal justice administration. Maximum credit six units applicable to a master's degree.



CJ 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with coordinator and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

CJ 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

CJ 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

CJ 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Dance

Refer to "Music and Dance" in this section of the bulletin.

Dual Language and English Learner Education

Refer to "Education" in this section of the bulletin.

Economics

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Nasatir Hall 329

TELEPHONE: 619-594-1675 / **FAX:** 619-594-5062

WEBSITE: <http://economics.sdsu.edu/>

Faculty

Catalina Amuedo-Dorantes, Ph.D., Professor of Economics,
Chair of Department

Christiana E. Hilmer, Ph.D., Professor of Economics

Michael J. Hilmer, Ph.D., Professor of Economics

Jennifer Y. Imazeki, Ph.D., Professor of Economics

[Senate Distinguished Professor]

Kangoh Lee, Ph.D., Professor of Economics (Graduate Adviser)

Hisham S. Foad, Ph.D., Associate Professor of Economics

(Graduate Adviser)

Quazi H. Shahriar, Ph.D., Associate Professor of Economics

Ryan Abman, Ph.D., Assistant Professor of Economics

Clark C. Lundberg, Ph.D., Assistant Professor of Economics

Assistantships

A number of teaching and research assistantships are available for qualified students. Appointments permitting up to 20 hours of service per week are available. In addition, students interested in pursuing teaching careers may apply for a teaching associate position. Application forms and additional information may be obtained from the graduate student coordinator of the Department of Economics.

Scholarships

Two general scholarship programs are available for qualified incoming and continuing economics M.A. students. Applications for the Terhune Scholarship and the McCuen Scholarship must be submitted to the Office of Financial Aid and Scholarships by March 15 for awards distributed the following academic year. Terhune awards can be up to \$10,000 and McCuen awards can be up to \$20,000 annually. The department administers several additional scholarships, which are awarded each spring semester. These include the Center for Public Economics awards ranging from \$300 to \$1,500. Application forms and additional information may be obtained from the department office for these scholarship opportunities.

General Information

The Department of Economics offers a Master of Arts degree in economics. The program provides students with advanced training in decision-making techniques and quantitative analysis by building on a core of applied microeconomic and econometric classes. Students learn to apply analytic methods to business and policy issues, use advanced econometric methods and computer software. An internship program provides students with valuable work experience. The program is designed to (1) prepare students for careers in consulting, domestic and multinational firms and government agencies, (2) provide students with university-level teaching experience, and (3) provide advanced training in economics for students planning on entering a Ph.D. program.

Admission to Graduate Study

Students applying for admission to the Master of Arts program in economics should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee by February 1 for fall admission.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Economics.

Graduate Admissions

The following materials should be submitted by March 1 for fall admission:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Economics

The following materials must be submitted electronically via Interfolio, <http://apply.interfolio.com/47215>, by March 1.

1. Two letters of recommendation;
2. A personal statement of no more than 750 words that describes why you wish to pursue graduate study in economics.

For information regarding the admissions process, visit the department's website at <http://economics.sdsu.edu/>.

International students interested in applying should first contact the International Student Center.

Visit the website at <http://www-rohan.sdsu.edu/~econ/graduate.htm>.

Advancement to Candidacy

In addition to the general requirements for advancement to candidacy described in Part Four of this bulletin, the student must have completed Economics 630, 631, 640, and 641 with at least a 3.0 (B) average and no individual core course grade lower than a 2.7 (B-). Deficiencies may be addressed by retaking core courses.

Specific Requirements for the Master of Arts Degree

(Major Code: 22041) (SIMS Code: 111901)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree described in Part Four of this bulletin, the student must complete an approved graduate program of 32 units. Each program must include Economics 630, 631, 640, 640L, 641, 641L, 740, and 795. No program may contain more than nine units of approved courses outside economics. In addition, no program may contain more than six units of 500-level courses.

A written comprehensive examination covering the core fields of microeconomics and econometrics is required for Plan B students. Students selecting Plan A must include Economics 799A in their program and complete a master's thesis.

Courses Acceptable for Master's Degree Program in Economics (ECON)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

ECON 507. Mathematical Economics (3)

Prerequisite: Mathematics 124 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 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. May be repeated with new content. See *Class 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 a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

ECON 630. Microeconomic Theory (3)

Prerequisite: Economics 321.

Theories of the consumer, the firm, and the market. Topics in welfare and general equilibrium. Duality and uncertainty.

ECON 631. Applied Microeconomic Methods (3)

Prerequisite: Economics 630.

Decision-making techniques in applied microeconomics including cost-benefit analysis, choice under uncertainty and applied game theory techniques.

ECON 640. Econometrics (3)

Prerequisites: Economics 321; Mathematics 120 or 121 or 150.

Measurement in economics. Use of economic models involving multiple regression analysis, simultaneous equation systems, and time series analysis.

ECON 640L. Econometrics Laboratory I (1)

Two hours of laboratory for 12 weeks.

Prerequisite: Concurrent registration in Economics 640.

Data analysis and econometric modeling using SAS. Applied statistical skills and SAS programming skills necessary to perform advanced data analysis to construct datasets, build, and estimate statistical models covered in Economics 640.

ECON 641. Applied Research in Econometrics (3)

Prerequisite: Economics 640.

Econometric applications and techniques including discrete choice, panel data simultaneous equations and time series. Data analysis and statistical software training in STATA, SAS, and SPSS.

ECON 641L. Econometrics Laboratory II (1)

Two hours of laboratory for 12 weeks.

Prerequisite: Concurrent registration in Economics 641.

Data analysis and econometric modeling using STATA. Applied statistical skills and STATA programming skills necessary to perform advanced data analysis to construct datasets, build, and estimate statistical models covered in Economics 641.

ECON 696. Experimental Topics (3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of economics. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ECON 700. Seminar in Microeconomic Applications (3)

Prerequisites: Economics 630 or classified graduate standing in another department and consent of instructor.

Microeconomic applications to individual, firm, or government. Maximum credit six units of Economics 700 applicable to a master's degree. See *Class Schedule* for specific content. Seminar topics include:

- Seminar in Industrial Organization and Firm Behavior
- Seminar in Labor Economics
- Seminar in Economic Issues in Demography
- Seminar in Experimental Economics

ECON 710. Seminar in Public Economics (3)

Prerequisites: Economics 630 or classified graduate standing in another department and consent of instructor.

Government in a market economy. Impact on individual and firm behavior. Maximum credit six units of Economics 710 applicable to a master's degree. See *Class Schedule* for specific content. Seminar topics include:

- Seminar in Environmental Issues
- Seminar in Public Expenditures
- Seminar in Urban and Regional
- Seminar in Regulation
- Seminar in Tax Policy
- Seminar in International Trade and Commercial Policy

ECON 720. Seminar in Development and Planning (3)

Prerequisite: Consent of instructor.

Development process and policies. Planning techniques. Relations among developing and developed countries. Maximum credit six units of Economics 720 applicable to a master's degree. See *Class Schedule* for specific content. Seminar topics include:

- Seminar in Development Economics
- Seminar in Development Planning
- Seminar in International Trade and Commercial Policy

ECON 730. Seminar in Macroeconomic Policy (3)

Prerequisite: Consent of instructor.

Applications of macroeconomics to open economics. Maximum credit six units of Economics 730 applicable to a master's degree. See *Class Schedule* for specific content. Seminar topics include:

- Seminar in National Monetary Institutions
- Seminar in International Monetary Policy
- Seminar in Business Cycles
- Seminar in Macroeconomic Modeling and Prediction

ECON 740. Seminar in Applied Economic Research (3)

Prerequisites: Advancement to candidacy and consent of graduate adviser.

Advanced treatment of research design and methodology. Application of empirical techniques to selected problems.

ECON 750. Seminar in History of Economic Thought (3)

Prerequisite: Consent of instructor.

Economic development in historical perspective. Maximum credit six units of Economics 750 applicable to a master's degree. See *Class Schedule* for specific content. Seminar topics include:

- Seminar in U.S. Economic History
- Seminar in Economic Growth in Historical Perspective
- Seminar in Contemporary Economic Systems

ECON 795. Internship in Economics (3) Cr/NC

Prerequisites: Economics 630, 640, and approval of graduate adviser.

Students will be assigned to various jobs in which economic theory can be applied to decision making. Supervision will be shared by the graduate adviser and on-the-job supervisor.

ECON 797. Research (3) Cr/NC/RP

Prerequisites: Classified graduate standing and consent of instructor.

Independent research project in an area of economics.

**ECON 798. Special Study (1-3) Cr/NC/RP**

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

ECON 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ECON 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

ECON 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Education

IN THE COLLEGE OF EDUCATION

General Information

The College of Education offers graduate study leading to the Master of Arts degree in education with concentrations in the following: counseling, dual language and English learner education, elementary curriculum and instruction, learning design and technology, postsecondary educational leadership and instruction, reading education, secondary curriculum and instruction, PreK-12 educational leadership, special education, and teaching. Some of these concentrations are designed to permit concurrent completion of the requirements for the correspondingly named advanced credentials.

Graduate study is also offered leading to the Master of Science degree in counseling, the Master of Science degree in rehabilitation counseling, and the Educational Specialist degree in school psychology.

The College of Education offers advanced graduate study leading to doctoral degrees in education: the Doctor of Education (Ed.D.) and the Doctor of Philosophy (Ph.D.). The Ed.D. in educational leadership is offered independently with concentrations in PreK-12 school leadership and community college/postsecondary leadership. Authorized by Senate Bill 724 passed in 2005, the Ed.D. was designed as a professional degree for aspiring school and community college educational administrators to develop advanced knowledge and skills by conducting research on significant problems of practice that have regional and national implications. PreK-12 and community college practitioners team with College of Education faculty in all aspects of the program.

Our graduate teaching associateships program can prepare students for a teaching career.

The Ph.D. degrees are offered jointly with collaborating universities that emphasize theory and research underlying educational practice as preparation for positions in higher education, school, and other public and private organizations. The Doctor of Philosophy (Ph.D.) in education with an emphasis on democratic schooling and social justice is offered jointly with Claremont Graduate University. Inquiries should be addressed to SDSU/CGU Ph.D. program office at 619-594-6544.

The degree of Doctor of Philosophy (Ph.D.) in mathematics and science education is offered jointly with the University of California, San Diego. For specific information about this program, refer to the Mathematics and Science Education section of this bulletin.

Admission to Doctoral Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the College of Education (refer to the appropriate degree section for the address to submit additional information).

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Doctor of Philosophy (Ph.D.) Degree in Education

All applicants must have completed a master's degree program prior to admission and reside in San Diego County or commit to relocating to San Diego County if admitted to the program.

The following materials should be submitted via our online supplemental program application by March 1 for the fall semester.

1. Online supplemental program application;
2. Three academic and/or professional letters of recommendation using the form in the online application;
3. A two to three page personal statement indicating reasons for pursuing doctoral study. The statement should include your reasons for seeking admission to this particular doctoral program, your perceived strengths and weakness in preparation for doctoral study, your research interests, and your relevant academic and employment experiences. Indicate why you believe the SDSU/CGU program is appropriate for you. Include the faculty at SDSU and CGU with whom you would like to work based on your thorough knowledge of their work. The personal statement should be double-spaced and typed;
4. A current curriculum vitae or resume listing work experiences, education, awards, publications, and presentations;
5. Unofficial or official transcripts from each university or college attended, including verification of completion of a master's degree in education or a related field. If degree requirements have not yet been met, submit a transcript listing all work completed to date;
6. GRE scores (<http://www.ets.org>, SDSU institution code 4682) – taken within five years of the date of the application.

The following materials should also be submitted directly to:

Office of Admissions
SDSU/CGU Doctoral Program in Education
Claremont Graduate University
170 E. Tenth St.
Claremont, CA 91711-6163

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org>, CGU institution code 4053) – taken within five years of the date of the application;
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org>, CGU institution code 4053).

For information regarding the admissions process, visit the department website at <http://go.sdsu.edu/education>.

Doctor of Education (Ed.D.) Degree in Educational Leadership

The following admissions materials must be submitted electronically:

1. Program application;
2. Three letters of recommendation;
3. Curriculum vitae or resume;
4. Statement of purpose;
5. Examples of professional and/or academic writing;
6. Employer statement of nomination or support.

For information regarding the admissions process, visit the department websites at <http://go.sdsu.edu/education/cclead> or <http://go.sdsu.edu/education/edl>.

Educational Specialist (Ed.S.) Degree in School Psychology

The following materials should be mailed or delivered to:

Department of Counseling and School Psychology

Attention: School Psychology Program Director
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1179

1. Curriculum vitae or resume;
2. Personal statements and essays (see website for essay questions);
3. At least three letters of recommendation;
4. Supplemental material to enhance evaluation of your academic, professional, interpersonal, and cross-cultural readiness (e.g., course papers or projects, an evaluation from work, a brief videotape of you working with children);
5. Students must obtain the California certificate of clearance prior to beginning the field experience sequence in the fall semester of their first year;
6. The California Basic Educational Skills Test (CBEST) is required by the State of California prior to beginning the sequence of studies. The program does not require passing the CBEST for admission. It must be passed, however, prior to consideration for the award of a credential. Out-of-state applicants may take the CBEST in their first semester;
7. Transcripts of all collegiate work:
 - a. Undergraduate major or substantial coursework in behavioral sciences (e.g., psychology, sociology, social work), education (or liberal studies), child development, and/or ethnic studies. The following courses are especially recommended: general psychology, developmental psychology, research and statistics in behavioral sciences, learning or cognition, social psychology or sociology, multicultural or culture-focused studies, and psychological or educational testing and measurement.
 - b. A minimum 2.85 grade point average (when A equals 4) in the last 60 semester (90 quarter) units or in the major. Applicants whose grade point averages fall below the university standard of 2.85 must supply additional data to support consideration for admissions.

Section I. Doctoral and Educational Specialist Programs

Doctor of Philosophy Degree in Education

<http://go.sdsu.edu/education/>

Admission to the Degree Curriculum

The Doctor of Philosophy (Ph.D.) program in education is offered jointly by the faculty in the College of Education at San Diego State University (SDSU) and the faculty in the School of Educational Studies at Claremont Graduate University (CGU). The mission of the Ph.D. program in education is to develop scholars who are committed to research on democratic schooling, social justice, and equal educational outcomes for all students, and the improvement of educational systems serving diverse communities.

How can we develop schools and colleges that are more responsive to such communities? How can we make sense of the complexity of educational organizations, the communities they serve, and the environments in which they operate? If you are anxious to contribute to the knowledge base that supports creation of educational systems that are more democratic and more effective, the SDSU/CGU joint doctoral program in education offers the benefits of a large, comprehensive, public university and a small private university with a transdisciplinary emphasis. Students in the program may choose from the following topic areas in their program of study: educational policy; evaluation and reform (PER); higher education/student affairs (HE); or teaching learning and culture (TLC).

For further information visit <http://go.sdsu.edu/education/doc/default.aspx>.

In addition to meeting the general requirements for admission to both institutions with classified graduate standing as outlined in their current bulletins, students must be recommended for admission by the program's admissions committee on the basis of excellence as evidenced in the following materials:

1. Program application;
2. An earned master's degree in education or a related field from an accredited institution with a cumulative GPA of 3.0 or above;
3. Sufficient experience pertinent to the mission of the program to benefit from the program;
4. Acceptable scores on the Graduate Record Examination (GRE);
5. Three recommendation letters attesting to the academic and professional skills necessary for doctoral studies;
6. A personal statement of purpose reflecting the skills, experiences, and dispositions appropriate for the program;
7. Curriculum vitae or resume.

Students seeking admission to the SDSU/CGU Ph.D. program in education must apply online at <http://go.sdsu.edu/education/sdsu-cgu-joint-phd-admissions.aspx>. Any questions about the program should be directed to Dr. Rafaela M. Santa Cruz, director of the program.

Advancement to Candidacy

Advancement to candidacy occurs when the institutional form signed by the dissertation committee approving the dissertation proposal is processed. It is CGU policy that the oral defense of the dissertation not be scheduled sooner than six months after advancement to candidacy.

Specific Degree Requirements for the Ph.D. Degree in Education

(Major Code: 08011) (SIMS Code 331901)

- 72 semester units (minimum) of coursework (24 units at San Diego State University, 24 units at Claremont Graduate University, and 24 units transferred from master's degree);
- Two research tools (one at each institution);
- Two written qualifying examinations;
- The oral qualifying examination;
- A dissertation proposal;
- A written dissertation;
- The dissertation defense.

A minimum of 48 semester units of residency, 24 at each institution, is required before a student is eligible to schedule the oral qualifying examination. In the interest of establishing an effective working relationship with faculty at both SDSU and CGU, 12 of the student's first 24 units must be taken at CGU.

Research Tools

Two research tools are required. Their purpose is to assure proficiency in research methodologies including those most likely to be used in the dissertation project. One research tool in intermediate quantitative methods is satisfied by receiving a grade of B or better in ED 850 at SDSU. The second research tool may be completed through course work in advanced quantitative methods or in other research methods with a grade of B+ or better, by proving competency in a second language relevant to your doctoral research, or by special arrangement with a faculty member at CGU.

Written Qualifying Examinations

Two written qualifying examinations are required. The first qualifying examination is usually written as a research paper, a literature review on a research interest, or an examination. Students are eligible to sit for the first qualifying examination after completion of 46 units in the program (cumulative of SDSU courses, CGU courses, and master's transfer units). This examination is to be co-supervised by a faculty member from each institution. Students must enroll in the capstone doctoral research seminar after completion of 62 cumulative units. A second qualifying examination will take the form of a mock dissertation proposal and will

come out of the capstone seminar. The mock proposal may also serve as the framework for the final dissertation proposal that will be co-supervised by a faculty member from each institution.

Oral Qualifying Examination

The oral qualifying examination is scheduled when all coursework, including research tools, has been completed and two written qualifying examinations have been approved. Through the oral qualifying examination the student is called upon to demonstrate a range and depth of understanding of the field of education. The examination serves to determine whether or not the student has made satisfactory progress in developing capacities for understanding diversity, critical analysis, systemic change for performance improvement, community transformation, effective educational practice, and original research to be advanced to candidacy for the doctorate. The oral is a discussion and examination of the work completed in the Ph.D. program to this point, including but not limited to the work demonstrated in written qualifying examinations.

Dissertation

All doctoral students will complete a research-based dissertation. The dissertation will typically focus on (a) understanding diversity and its implications for education, (b) critically analyzing and developing educational policy, (c) engaging in systemic organizational change that improves performance and quality of life for all, (d) applying theory and research-based knowledge in transforming communities, or (e) using effective educational practices, including tools available through technology, to transform organizations. The primary goal of the dissertation is contributing to the knowledge base in education.

Dissertation Defense

The program coordinator schedules the dissertation defense upon notification by the dissertation committee that the dissertation draft is approved. The dissertation committee conducts the defense and may request revisions to the final dissertation manuscript during the oral defense.

Performance Expectations

Joint doctoral students must maintain a 3.0 GPA to be in good academic standing. Students must be continuously enrolled for the duration of their program by taking classes at either institution. Once required coursework at both SDSU and CGU has been completed, the student is required to maintain continuing registration at CGU through completion of all degree requirements.

Faculty

The faculty bring diverse research and teaching interests to the study of democratic schooling, social justice, and diversity in education. Among the members of the faculty, the student will find rich resources of expertise in such areas as public policy, organizational theory and leadership, curriculum and instruction, higher education, counseling and school psychology, language development, qualitative and quantitative analysis, bilingual and cross-cultural education, and educational technology.

San Diego State University:

Director: J. Luke Wood

Faculty: Alfaro, Bezuk, Branch, Brandon, Bresciani Ludvik, Butler-Byrd, Cadiero-Kaplan, Cappello, A. Chizhik, Clement Lamb, Degeneffe, Duesbery, Estrada, Evans, Fisher, Frey, Gallego, Green, Hampton, Harris, Hatch, Ingraham, James-Ward, Johnson, Marshall, Monk, Olney, Pang, Park, Philipp, Pumpian, Ross, Santa Cruz, Sax, Soto, Sterling Aquino, Tucker, Vaughn, Wood

Claremont Graduate University:

Dean: Allen M. Omoto

Faculty: Carter, Cohn, Drew, Ganley, Luschei, Maramba, Paik, Perez, Perkins, Poplin, Santibañez, Smith

Doctor of Education Degree in Educational Leadership

<http://go.sdsu.edu/education/cclead/>

<http://go.sdsu.edu/education/edl/>

Admission to the Degree Curriculum

The Doctor of Education (Ed.D.) degree in educational leadership prepares leaders capable of initiating change and creating diverse educational institutions for the region's P-14 student population. It is designed as a professional degree for PreK-12 school and community college/postsecondary leaders who will develop advanced leadership and research skills related to their own institutional settings. The program is committed to developing reflective leaders and change agents for complex educational organizations in diverse multicultural settings. Emphasizing theory, research, and practice, the program provides an opportunity for candidates to work in learning communities with faculty and practitioners to develop a deeper understanding of themselves as educational leaders and to develop the knowledge and skills needed to improve student learning. The program is offered through the Department of Educational Leadership and the Department of Administration, Rehabilitation and Postsecondary Education. There are two concentrations: PreK-12 school leadership and community college/postsecondary leadership.

A cohort of students will be admitted by May for classes starting in the fall semester.

In addition to meeting the general admission requirements, students must be recommended for admission by the program's graduate admissions committee on the basis of standards of excellence as evidenced in the following materials:

1. An earned baccalaureate degree and master's degree or equivalent from accredited institutions of higher education with a cumulative GPA in upper division and/or graduate study of 3.0 or above;
2. Sufficient preparation and experience pertinent to educational leadership to benefit from the program;
3. Submission of Graduate Record Examination (GRE) scores on the GRE tests;
4. Demonstrated leadership potential and skills including successful experience in schools, postsecondary education, community colleges, related fields and/or policy leadership;
5. Demonstrated academic excellence, problem-solving ability, and an interest in critically assessing and bringing about improvements within current educational policies and practices;
6. Three confidential letters of support attesting to the leadership ability and scholarship of the candidate;
7. Written statement of purpose reflecting understanding of the challenges facing the public schools or community colleges/institutions of higher education in California;
8. Curriculum vitae or resume;
9. Examples of professional and/or academic writings;
10. Statement of support for the candidate's doctoral studies from her/his employer or, in the cases where this is not provided, an indication of the candidate's plan for meeting the demands of the program and his/her professional responsibilities;
11. Personal interview with the Admissions and Standards Committee including a written response to a prompt provided by the committee.

Meeting the minimum requirements qualifies an individual for consideration, but does not guarantee admission to the program. Admission will be granted on a competitive basis.

Advancement to Candidacy

The written qualifying examination will occur at the end of the fourth semester in the program. The examination will cover the three areas of the program: (a) leadership core courses, (b) research methodology courses, and (c) concentration courses completed up to that time. The structure of the examination will be developed by the executive committee and administered by the program directors. In order to be eligible to participate in the

portfolio defense (qualifying examination), a student must have completed all prior program coursework with a grade of B or better.

Once the doctoral student successfully completes the qualifying examination and has successfully completed all required courses at that stage in the program, the doctoral student will be advanced to candidacy.

Specific Requirements for the Ed.D. in Educational Leadership

Core Curriculum Requirements (27-30 units)

ED 815	Re-Thinking Leadership	3
ED 836	Research and Writing Support	6-9 (Cr/NC)
ED 840	Seminar in Leadership in a Diverse Society	3
ED 850	Seminar in Quantitative Methods of Inquiry.....	3
ED 851	Seminar in Qualitative Methods of Inquiry.....	3
ED 855	Seminar in Leadership for Developing Educational Systems.....	3
ED 860	Seminar in Leadership and Educational Change.....	3
ED 885	Seminar in Educational Program Planning and Evaluation.....	3

Dissertation (12 units)

ED 899	Doctoral Dissertation.....	12 (Cr/NC/RP)
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Concentration in PreK-12 School Leadership (21 units)

(Major Code: 08272) (SIMS Code: 331931)

EDL 707	Educational Law and Finance	3
EDL 720	Human Resource Development in PreK-12 Educational Organizations	3
EDL 755	Governance and Policy Development in PreK-12 Learning Organizations	3
EDL 760	Practicum in PreK-12 Educational Organizations	2-6 (Cr/NC/RP)
EDL 830	Leadership for Learning	3
EDL 880	Seminar in Topics in Educational Leadership.....	3
ED 895	Seminar: Writing and Research.....	3

Concentration in Community College/Postsecondary Leadership (18 units)

(Major Code: 08273) (SIMS Code: 331932)

ARP 801	Seminar in Community College History and Development.....	3
ARP 810	Seminar in Community College Law and Finance.....	3
ARP 812	Seminar in Budget and Resource Management in Community Colleges.....	3
ARP 813	Strategic Planning in Community Colleges.....	3
ARP 827	Seminar in Emerging Issues in Postsecondary Educational Leadership.....	3
Three units selected from the following courses:		
ED 852	Seminar in Advanced Quantitative Methods of Inquiry.....	3
ED 853	Seminar in Advanced Qualitative Methods of Inquiry.....	3

The program is designed to be completed in three calendar years including summer sessions. Classes are held during the late weekday afternoons/evenings, on weekends, and during the summer to accommodate the schedules of working adults. Some classes include a blend of in-class and distance learning technologies.

Dissertation

All doctoral students will complete a rigorous research-based dissertation integrating theory and research in the study of educational practice. The dissertation will include the results of the doctoral student's independent research and will typically focus on an examination of (a) an educational issue, (b) a practice or program, (c) an educational policy, reform, or improvement, or (d) implementation studies within an educational organizational. Most dissertations will be studies undertaken in the local context, having the potential to contribute to solutions of educational problems. Dissertations will use a range of qualitative and quantitative research and evaluation methods. The dissertation will present the results of the doctoral student's independent investigation in a manner that contributes both to professional knowledge in education and to the improvement of educational practice.

The primary goal of the dissertation is to generate knowledge that contributes to the understanding of educational practices, policies, reforms or improvements. Doctoral students who have not completed their dissertation after 12 semester units, must maintain continuous enrollment in the university by registering for at least one unit per semester.

Final Examination (Oral)

The dissertation committee, consisting of two university faculty and at least one community member, will conduct a final oral examination during which the doctoral student defends the dissertation. The dissertation defense will address the theoretical and conceptual background, relevant literature, data collection techniques, data analysis strategies, and results and implications concerning the question(s) studied.

Additional Requirements

Doctoral students who have not earned the professional administrative credential will be able to do so while enrolled in the Ed.D. program. PreK-12 doctoral students must complete additional practicum activities to demonstrate their competence in each of the principles of administrative practice specified by the California Commission on Teacher Credentialing.

Students within the PreK-12 concentration are expected to complete an internship as part of their concentration. The internship (3 units) will typically occur at the end of the doctoral student's coursework and will be congruent with the doctoral student's professional goals.

Performance Expectations

Doctoral students must maintain a 3.0 GPA to be in good standing. Doctoral students who have a grade point average below 3.0 in two successive terms will be disqualified from the program. They must meet all the requirements of graduate doctoral students outlined in the *Graduate Bulletin*. In addition, doctoral students who are enrolled in the professional administrative credential must meet the standards set forth in the California Commission on Teacher Credentialing approved program documents submitted by SDSU.

Doctoral students who fail to make satisfactory academic progress may be officially disqualified from the university in writing after consultation with the executive committee. A doctoral student may be disqualified because of unsatisfactory academic progress only after a careful review and written recommendation by the Ed.D. program faculty. To ensure that a decision to disqualify a doctoral student from the program is just, basic due process requirements will be met, including an opportunity for appeal by the doctoral student following the guidelines in the *Graduate Bulletin*. A doctoral student who has been disqualified is considered to have been terminated from the university and will not be allowed to continue in the program, enroll in courses, or register again without readmission.

Faculty

The following faculty are available for teaching and serving on doctoral committees:

Administration, Rehabilitation and Postsecondary Education: Bresciani Ludvik, Degeneffe, Hampton, Harris, Olney, Sax, Wood
Educational Leadership: Fisher, Frey, James-Ward, Johnson, Marshall, Pumpian

Educational Specialist Degree In School Psychology

General Information

The Educational Specialist (Ed.S.) degree in school psychology, offered in the Department of Counseling and School Psychology, is an integrated graduate-professional program designed to prepare school psychologists who apply educational, psychological, and social and cultural foundations to create and engender a vision of educational equity in the public schools. The program prepares school psychologists with (a) ecological and systems perspectives by which to consider problem situations in the schools, (b) the cultural competencies to serve the multicultural populations of public schools, (c) the knowledge and skills to serve both general and special education populations, and (d) the skills to function as data-based change agents and consultants in the schools, providing a broad range of culturally-appropriate assessment-intervention services. A scientist-practitioner training model serves as a guide to the preparation of these data-based problem-solvers who will be prepared to serve as school psychologists in the public schools.

The Ed.S. program requires completion of an integrated sequence of coursework, supervised field experiences, and research across a minimum of four years of full-time study (or part-time study to result in no more than six years). The program is organized and aligned with the National Association of School Psychologists (NASP) standards and domains of practice. During the first three semesters, students may complete the requirements for the Master of Science degree in counseling with a concentration in school psychology.

At the end of the third full-time year, students stand for review and recommendation for the School Psychology Internship Credential awarded by the California Commission on Teacher Credentialing. In the last year of the program, students must complete a 1200 hour internship in the public schools, enroll in the accompanying professional development seminar, and engage in the development of a culminating professional portfolio. Satisfactory completion of all program requirements results in recommendation for the Ed.S. degree and the Pupil Personnel Services Credential in School Psychology. The credential authorizes the holder to function as a school psychologist in preschool through high school settings.

Typically, students enter the program with a bachelor's degree and complete all program requirements. Students who hold master's or doctoral degrees in closely related fields may complete the program on a "credential only" basis (Credential Code: 00804) or may seek the Ed.S. degree. All students must follow the regular application procedures and requirements. After admission, and in consultation with the adviser, students with graduate degrees may develop petitions for waiver of comparable courses and a proposed sequence of study, which is reviewed by the governing program faculty for approval prior to implementation.

Accreditation

The school psychology program is accredited by the California Commission on Teacher Credentialing and approved by the NASP. National accreditation facilitates eligibility for National Certification in School Psychology (NCSP), however, does not guarantee certification, licensure, or credentialing outside of California. It is the student's responsibility to be aware of other states' requirements, and to arrange adjustment in the program accordingly if credentials are to be sought elsewhere.

Financial Assistance

The school psychology program has a long (since 1986) and successful record of obtaining federal funding for personnel preparation projects which provide financial support for selected full-time students. These projects are time-specific, applicants and students are referred to the program website and office for current information. Additionally, graduate assistantships are available to a limited number of students. The Department of Counseling and School Psychology sponsors the Gertrude Bell Scholarship and a loan fund honoring Professors Leonard Strom and John Schmidt which along with other university-wide programs, is administered by the Office of Financial Aid and

Scholarships. Other forms of financial assistance administered by the university are presented elsewhere in this bulletin. Teaching assistantships may be available.

Admission

Applications are considered only once a year with review of applications beginning on December 15. We urge applicants to submit their applications by that date. The application requires three steps that must be completed simultaneously:

1. All applicants must apply to the university online at <http://www.calstate.edu/apply>.
2. The following materials should be submitted as a complete package to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

- a. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - b. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 - c. If medium of instruction was in a language other than English, official notification of English language score plus Test of Written English.
3. Applicants complete a program application and provide supporting materials with their application. A complete application submission requires the application, experience profile, scanned and uploaded GRE scores, scanned and uploaded transcripts, required essays, and at least three references with e-mail contact information included. It is incumbent upon applicants to provide materials necessary by which their academic, cross-cultural, interpersonal, and professional readiness for the program can be discerned. Applicants may also include additional materials to include undergraduate papers, written evaluations of work performance, and a professional goals statement. Each application is reviewed by at least two school psychology faculty members, who will rate the candidate in four areas of readiness.
 - a. Completed program application checklist;
 - b. Three letters of recommendation;
 - c. Essay/personal statement;
 - d. Curriculum vitae or resume;
 - e. The California Basic Educational Skills Test (CBEST) (Out-of-state applicants may take the CBEST in their first semester);
 - f. Supplemental material to enhance evaluation of your academic, cross-cultural, interpersonal, and professional readiness (e.g., course papers or projects, an evaluation from work, a brief videotape of you working with children). Applicants whose grade point averages fall below the university standard of 2.85 in the last 60 semester units or in the major MUST supply additional data in support of their academic readiness;
 - g. Program Application Affidavit. Students must obtain the California Certificate of Clearance prior to beginning the field experience sequence in the fall semester of their first year.

Admission is a two-phase process: (1) completion of the online application portfolio and (2) small group interviews using authentic assessment activities. Successful applicants will demonstrate academic, professional, interpersonal, and cross-cultural readiness for this demanding graduate-professional program. It is strongly recommended that applicants have an undergraduate major or substantial coursework in behavioral sciences (e.g., psychology, sociology, social work), education (or liberal studies), child development, and/or ethnic studies prior to entering the program. The following courses are especially recommended: general psychology, developmental psychology, research and statistics in behavioral sciences, learning or cognition, social psychology or sociology, multicultural or culture-focused studies, and psychological or educational testing and measurement. There is one prerequisite course in development.

Application materials become the property of the program and will not be returned to the applicant. No minimum set of qualifications in any way guarantees admission. Additional information about the program can be found at

<http://go.sdsu.edu/education/csp/schoolpsychology.aspx>.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy, as described in Part Four of this bulletin and be recommended by the faculty. A student who holds classified standing may be advanced to candidacy for the M.S. degree with Concentration in Counseling after completing at least 12 units of coursework on the official M.S. program of study with a minimum grade point average of 3.0 (B). Advancement to candidacy for the Ed.S. degree occurs when general requirements have been met and the student has earned a minimum grade point average of 3.0 (B) in at least 30 units listed on the official Ed.S. program of study.

Specific Requirements for the Educational Specialist Degree in School Psychology

(Major Code: 20013) (SIMS Code: 331050)

In addition to meeting the requirements for admission to the university with classified graduate standing, the student must satisfy the basic requirements for the master's degree described in Part Four of this bulletin. In addition, the student must demonstrate and document, in a comprehensive culminating portfolio, the integration and application of theory, research, and skills appropriate to the practice of school psychology.

Curricular Requirements for the Ed.S. in School Psychology

The school psychology program requires a specific sequence of courses and supervised experiences that align with the National Association of School Psychologists (NASP) domains of practice, which is the program's accrediting agency. The student, in collaboration with the adviser, must file a program of study prior to taking courses to ensure all requirements are fulfilled. The student entering with a bachelor's degree must complete a minimum of 93 units of the M.S. and Ed.S. school psychology program, with courses selected in collaboration with the adviser. Students admitted to the Ed.S. or credential-only programs, with a previously earned graduate degree in a closely-related field, may have completed graduate coursework consistent with the school psychology program. Such students may petition for course waiver(s) by presenting documentation of successful completion of comparable courses and attainment of associated knowledge and competencies; however, (a) the student must complete a minimum of 47 units in the SDSU Ed.S. program and (b) the full-complement of knowledge and skills must be demonstrated prior to recommendation for the Ed.S. degree.

M.S. in Counseling with Concentration in School Psychology* (46 units)

Students are not directly admitted to the Master of Science degree in counseling with a concentration in school psychology.

CSP 600	Cross-Cultural Counseling Communication Skills.....	2
CSP 600L	Cross-Cultural Counseling Prepracticum.....	1 (Cr/NC)
CSP 615	Seminar in Multicultural Dimensions in Counseling.....	3
CSP 619	Foundations in Ecosystemic Thinking and School Psychology.....	3
CSP 623	Ecobehavioral Assessment-Intervention.....	3
CSP 662B	Counseling Interventions with Children and Adolescents: School Counseling and School Psychology.....	3
CSP 663	Response to Intervention: Assessment-Intervention for Learning I.....	3
CSP 664	Response to Intervention: Assessment-Intervention for Learning II.....	3

CSP 710A	Professional Seminar: Evaluating Educational and Psychological Interventions.....	3
CSP 726	School Psychology Models and Practices in Family-School Collaboration.....	3
CSP 730	Fieldwork in Counseling.....	3 (Cr/NC)
CSP 740	Practicum.....	4 (Cr/NC)
CSP 750	Response to Intervention: Assessment and Instructional Support for Culturally and Linguistically Diverse Learners.....	3
CSP 762	Prevention, Crisis Intervention, and Conflict Resolution in Schools.....	3
CSP 764	Advanced Educational Psychology: Developmental and Biological Bases of Behavior.....	3
ED 690	Methods of Inquiry.....	3

*Courses may be applied to the Master of Science degree in counseling with a concentration in school psychology (Major Code: 08261) (SIMS Code: 331046). Students are not directly admitted to the Master of Science degree in counseling with a concentration in school psychology.

Ed.S. Degree in School Psychology (47 units)

CSP 680	Theory and Process of Consultation.....	3
CSP 710B	Professional Seminar: Advanced Research and Evaluation in School Psychology.....	3
CSP 723	School-Based Mental Health Interventions.....	3
CSP 730	Fieldwork in Counseling.....	3 (Cr/NC)
CSP 733	Ethics and Law for Educators.....	3
CSP 751	Response to Intervention: Advanced Assessment-Intervention: Special Populations.....	3
CSP 752	Seminar and Practicum: School Psychology.....	6 (Cr/NC)
CSP 760	Advanced Seminar in School Psychology.....	6
CSP 761	Dynamic Cognitive Assessment and Intervention.....	3
CSP 771	Advanced Learning and Multi-Tiered Mediated Interventions.....	3
CSP 780	Internship.....	8 (Cr/NC)
CSP 784	Advanced Consultation in Diverse Schools.....	3

Other courses as approved by adviser.

Requirements for the Mandatory School Psychology Credential

This is a combined program that includes a M.S. in Counseling, an Ed.S. degree, and PPS credential. The PPS credential is not a degree. Students in this program will complete coursework towards a California Pupil Personnel Services credential with a focus area in school psychology. PPS credential requirements include the coursework for the M.S. and Ed.S., a 1,200-hour internship in the public schools as the culminating supervised field experience, and demonstrated competency in each of the NASP standards within the program. Upon completion of the credential, students receive the formal recommendation of the school psychology faculty. The internship is a full-time, year-long experience; under special circumstances, it may be possible to extend the internship on a half-time basis across two years. Interns enroll in Counseling and School Psychology 760 and 780 throughout the duration of their internship and complete a portfolio with concurrent enrollment in both classes.

Education

Performance Expectations

Students must maintain the university minimum 3.0 grade point average with no grade lower than B-. Falling below a minimum 3.0 GPA automatically places a student on administrative academic probation. Such academic probation for two semesters or three grades of B- or lower (including NC), regardless of GPA, are grounds for dismissal from the program and a faculty review will ensue.

Adherence to the National Association of School Psychologists Principles for Professional Ethics is a mandatory requirement. Academic honesty is expected in all courses and supervised experiences (see Part One of this bulletin). Students who knowingly or unknowingly violate any part of the ethical code or engage in academic dishonesty may be dismissed from the program without further qualification regardless of coursework or other academic achievement.

Career Options

After receiving the school psychology credential and completing two years of post-internship, full-time service as a school psychologist in the public schools, the school psychologist is eligible to take the standardized examination for licensure as an educational psychologist in California. Interested candidates should inquire with the California Board of Behavioral Examiners.

Section II. Master's Degree Programs

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the College of Education (refer to the appropriate degree section for the address to submit additional information).

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Program Admissions

All programs in the College of Education require the submission of a second application, the supplementary program application. The application is online at <http://go.sdsu.edu/education/apply-now.aspx>. All letters of recommendation, personal statements, and other required documents are submitted through the online application. Refer to the specific program requirements to be submitted and department contact information for each program.

Master of Arts Degree in Education Counseling

(Major Code: 08261) (SIMS Code: 331021)

Submit the following in the supplementary program application.

1. A personal statement;
2. Employment and educational history;
3. Three letters of recommendation.

For more information contact:

Department of Counseling and School Psychology
<http://go.sdsu.edu/education/csp>
619-594-6109

Dual Language and English Learner Education

(Major Code: 08994) (SIMS Code: 331956)

Submit the following in the supplementary program application.

1. Two letters of recommendation;
2. Letter of intent that includes reasons you wish to be admitted to the MA program.

For more information contact:

Department of Dual Language and English Learner Education
<http://go.sdsu.edu/education/dle/>
619-594-5155

Educational Leadership: Specialization in Postsecondary Education

(Major Code: 08271) (SIMS Code: 331911)

Educational Leadership: Specialization in Student Affairs in Postsecondary Education

(Major Code: 08271) (SIMS Code: 331913)

Submit the following in the supplementary program application:

1. Two letters of recommendation.

For more information contact:

Department of Administration, Rehabilitation and Postsecondary Education
<http://interwork.sdsu.edu/main/>
619-594-6115

Educational Leadership: Specialization in PreK-12

(Major Code: 08271) (SIMS Code: 331912)

Submit the following in the supplementary program application:

1. Two letters of recommendation;
2. California Basic Educational Skills Test (CBEST) scores.

For more information contact:

Department of Educational Leadership
<http://go.sdsu.edu/education/edl/>
619-594-4063

Elementary Curriculum and Instruction

(Major Code: 08021) (SIMS Code: 331946)

No new students are being admitted to this program until further notice.

For more information contact:

School of Teacher Education
<http://go.sdsu.edu/education/ste/>
619-594-6131

Mathematics Education (K-8)

(Major Code: 17012) (SIMS Code: 331947)

No new students are being admitted to this program until further notice.

Submit the following in the supplementary program application:

1. One letter of recommendation;
2. Two essays.

For more information contact:

School of Teacher Education
Attention Dr. Lisa Clement Lamb (Lisa.lamb@sdsu.edu)
http://go.sdsu.edu/education/ste/ma_mathematics.aspx
619-594-6131

Reading Education

(Major Code 08301) (SIMS Code: 331964)

Submit the following in the supplementary program application:

1. Three professional letters of recommendation.

For more information contact:

School of Teacher Education
Attention Dr. Marva Cappello (cappello@sdsu.edu)
<http://go.sdsu.edu/education/ste/reading.aspx>
619-594-6131

Secondary Curriculum and Instruction

(Major Code: 08301) (SIMS Code: 331973)

No new students are being admitted to this program until further notice.

For more information contact:

School of Teacher Education
<http://go.sdsu.edu/education/ste/Default.aspx>
619-594-6031

Special Education

(Major Code: 08081) (SIMS Code: 331982)

For more information contact:

Department of Special Education
<http://go.sdsu.edu/education/sped/>
619-594-6665

Master of Arts in Teaching Degree

(Major Code: 08292)

Submit the following in the supplementary program application:

1. One letter of recommendation.

For more information contact:

School of Teacher Education
<http://go.sdsu.edu/education/ste/>
619-594-6131

Master of Science Degree in Child and Family Development

(Major Code: 08231)

The following materials should be submitted electronically on the department application or mailed to:

Department of Child and Family Development

Attention: Graduate Adviser
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-4502

1. Letter of intent which includes reason for seeking the degree and career goals;
2. Three letters of recommendation, one of which must be from an academic reference and another from an occupational reference;
3. Curriculum vitae or resume;
4. Written personal statement of background, interests, work experiences, abilities, and career goals for a graduate degree in child development;
5. Telephone or in-person interview conducted by one or more members of the child development faculty.

Master of Science Degree in Counseling

Marriage and Family Therapy

(Major Code: 08261) (SIMS Code: 331006)

Submit the following in the supplementary program application:

1. Three letters of recommendation;
2. Personal statement;
3. Curriculum vitae or resume.

For more information contact:

Department of Counseling and School Psychology
Marriage and Family Therapy Program
<http://go.sdsu.edu/education/csp/mft.aspx>
619-594-6109

Master of Science Degree in Counseling

Multicultural Community Counseling Community-Based Block

(Major Code: 08261) (SIMS Code: 331006)

Submit the following in the supplementary program application:

1. Three letters of recommendation;
2. Personal statement;
3. Curriculum vitae or resume.

For more information contact:

Department of Counseling and School Psychology
Community-Based Block Program
<http://go.sdsu.edu/education/csp/cbb.aspx>
619-594-6109

Master of Science Degree in Counseling

School Counseling

(Major Code: 08261)

Submit the following in the supplementary program application:

1. Three letters of recommendation;
2. Personal statement;
3. Curriculum vitae or resume;
4. California Basic Educational Skills Test (CBEST).

For more information contact:

Department of Counseling and School Psychology
<http://go.sdsu.edu/education/csp/schoolcounseling.aspx>
619-594-6109

Master of Science Degree in Rehabilitation Counseling

(Major Code: 12221)

Submit the following in the supplementary program application:

1. Letters of reference;
2. Personal statement.

For more information contact:

Department of Administration, Rehabilitation and Postsecondary Education
<http://interwork.sdsu.edu/main/>
619-594-6406

Master of Arts Degree in Education

Admission to the Degree Curriculum

Applicants must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In addition, applicants must have completed a minimum of 12 units in professional education courses and must either be admitted to the program of teacher education or hold a valid California credential, other than an emergency or provisional credential, before being recommended for classified graduate standing. (This is not applicable to students in the Departments of Administration, Rehabilitation and Postsecondary Education, Counseling and School Psychology, Learning Design and Technology, Special Education, and School of Teacher Education.)

A student desiring a concentration in educational leadership must, in addition to the above, meet specific requirements for admission to the appropriate advanced credential program. A student desiring a master's degree concentration in counseling, dual language and English learner education, or in special education must also meet specific admission requirements. (For further information, refer to the College of Education, Office of Graduate Programs, or to the coordinators of the respective programs. Students in counseling and school psychology should go to the Department of Counseling and School Psychology website <http://go.sdsu.edu/education/csp/Default.aspx>.)

Advancement to Candidacy

A student desiring a Master of Arts degree in education with a concentration in counseling, educational leadership, elementary curriculum, instruction, learning design and technology, reading education, or secondary curriculum and instruction may be advanced to candidacy upon completion of the basic requirements as described in Part Four of this bulletin.

Education

Specific Requirements for the Master of Arts Degree

In addition to meeting the requirements for admission to the university with classified graduate standing and the credential requirements as applicable, the student must satisfy the basic requirements for the master's degree described in Part Four of this bulletin. In addition, the student must meet the requirements specified for one of the concentrations in education (described below). Courses common to all concentrations are Education 690 or Teacher Education 634, and Plan A, which requires Education 799A, or Plan B, in which three options are available, Education 791A (3 units) and 791B (1 unit); or Education 791A (3 units) and 791B (3 units); or Education 795A (3 units) and 795B (3 units). All candidates for the Master of Arts degree in education who elect Plan B must pass a comprehensive examination.

The Comprehensive Examination

This written examination, designed to evaluate the achievement in the specific area of the student's concentration, is required of all candidates for the master's degree in education. A student is eligible to take the comprehensive examination only after advancement to candidacy.

The examination is offered near the midpoint of each semester. A reservation must be made at least one week in advance of the examination. For information on exact dates, and for a reservation, check with the coordinators of the respective programs.

Selection of Plan A or Plan B

In general, applicants will be programmed for Plan B, the seminar plan. After the student is approximately half way through the program, has secured an adviser and established a thesis plan, permission to transfer to Plan A may be requested. Plan A is designed for students who have a particular research problem they wish to investigate in some detail. Requests for transfer to Plan A must be prepared as an official change in program for the master's degree, countersigned by the faculty adviser, and submitted to the Office of Graduate Programs in the College of Education.

Both Plan B options provide students the opportunity (1) to have two experiences which emphasize research or evaluation and writing, (2) to participate actively in the projects of the other members of the seminar, and (3) to subject their own work to critical evaluation by the other seminar members. Both plans require the ability to formulate and define research or evaluation problems, to assemble data pertinent to the problem, to draw conclusions, and to present the study in acceptable written form. It is expected that the two seminars will be at least as demanding as the thesis with respect to the difficulty and quantity of work required. Selection of one of the Plan B options must be made with the approval of the departmental faculty adviser.

Course Requirements

NOTE: Students are requested to consult with the appropriate master's degree adviser prior to taking any coursework leading to the master's degree. Students are urged to take Education 690 (3 units) as early as possible in their first graduate year.

Concentrations

Counseling

(Major Code: 08261) (SIMS Code: 331021)

The Department of Counseling and School Psychology offers a Master of Arts degree which prepares students to address the mental health and relational needs of culturally diverse populations. The program covers contemporary mental health practices that focus on mental health recovery and trauma-informed care including integrated recovery and strength-based approaches. The degree is a building block for candidates to be better equipped to work with the mental health needs of children, youth, and adults. The program also helps prepare students to engage in more advanced training to be licensed professionals in mental health and counseling services. The degree prepares students to meet entry requirements for doctoral study.

1. Prerequisite: Admission to the Department of Counseling and School Psychology.
2. ED 690 Methods of Inquiry.....3
3. Core program (minimum of 15 units):
 - a. Common Core (3 units):

CSP 600	Cross-Cultural Counseling Communication Skills.....	2
CSP 600L	Cross-Cultural Counseling Prepracticum.....	1 (Cr/NC)
 - b. Foundations (minimum of 6 units):

CSP 606A	California Law and Ethics for Marriage and Family Therapy.....	3
CSP 610B	Determinants of Human Behavior: Social and Cultural.....	1-3
CSP 610C	Determinants of Human Behavior: Development.....	1-3
CSP 610D	Determinants of Human Behavior: School Learning.....	1-3
CSP 610E	Determinants of Human Behavior: Biological.....	1-3
CSP 615	Seminar in Multicultural Dimensions in Counseling.....	3
 - c. Theory, Research, and Techniques (minimum of 6 units):

CSP 601	Theoretical Foundations of Counseling and Marriage and Family Therapy.....	3
CSP 618	Mental Health Recovery and the DSM: A Social Justice Perspective.....	3
CSP 622A	Ecosystems Assessment- Intervention I: Students.....	3
CSP 625	Marriage and Family Therapy Theories and Best Practices I.....	3
CSP 626	Marriage and Family Therapy Theories and Best Practices II.....	3
CSP 640	Testing and Assessment for Marriage and Family Therapists.....	2
CSP 645	College Planning and Career Development P-16.....	3
CSP 650	Trauma and Crisis Counseling in Multicultural Community Context.....	1-3
CSP 662B	Counseling Interventions with Children and Adolescents: School Counseling and School Psychology.....	3
CSP 670	Theory and Process of Group Counseling.....	2
CSP 670L	Group and Community Counseling Laboratory.....	1 (Cr/NC)
CSP 680	Theory and Process of Consultation.....	3
CSP 691	Violence in Couples' Relationships.....	1
CSP 762	Prevention, Crisis Intervention, and Conflict Resolution in Schools.....	3
4. Research (3-6 units):

ED 799A	Thesis.....	3 (Cr/NC/RP)
OR		
ED 795A-795B	Seminar.....	3-3
OR		
ED 791A	Evaluation Techniques.....	3
ED 791B	Practicum: Evaluation.....	6
5. Electives (6-9 units): Selected in consultation with adviser and may include courses listed above.

Dual Language and English Learner Education

(Major Code: 08994) (SIMS Code: 331956)

The Master of Arts degree in education with a concentration in dual language and English learner education is designed to provide special knowledge and training for two diverse audiences with different career goals. Option 1, critical literacy and social justice, is geared for the classroom teacher or resource specialist

who will be working directly with language minority students. Option 2, the outside specialization, has been developed to allow participants to cross-specialize in additional areas. The nine to 12 unit outside specialization may be in other College of Education departments or in other cooperating departments across campus. Students with an outside specialization need approval for outside courses from both the Dual Language and English Learner Education department and the cooperating department.

Students in each specialization will take the same 18 units of research and core classes but their other 12 units may vary as described below. All students must follow the guidelines and procedures established for the Master of Arts degree in education (i.e. take a comprehensive examination based on core coursework after advancing to candidacy).

Research (required for both options): Nine units total.

ED 690 Methods of Inquiry.....3

AND

ED 795A-795B Seminar..... 6

OR

ED 799A Thesis..... 3 (Cr/NC/RP)

AND

ED 797 Research..... 3 (Cr/NC/RP)

Option 1: Critical Literacy and Social Justice Specialization (Major Code: 08994) (SIMS Code: 331965)

Core:

DLE 600A Foundations of Democratic Schooling.....3

OR

DLE 600B Foundations of Dual Language Programming for Critical Biliteracy Development.....3

DLE 601 Language Policies and Practices.....3

DLE 650 Curriculum Development for Urban School Communities.....3

Specialization: Select 12 units from the following with consent of adviser.

DLE 553 Language Assessment and Evaluation in Multicultural Settings.....3

DLE 596 Special Topics in Bilingual and Multicultural Education..... 1-3

DLE 603 Community and Schools in a Diverse Society.....3

*DLE 604 Learning and Teaching Language in a Dual Language Setting.....3

DLE 651 Curriculum, Teaching, and Assessment: ELD and SDAIE..... 1-3

DLE 652 Literacy and Language: Critically Examining Curriculum for Teaching and Learning.....3

DLE 653 Language Development in K-12 Multilingual Classrooms.....3

DLE 686 Seminar in Multicultural Education..... 1-6

DLE 798 Special Study..... 1-6 (Cr/NC/RP)

*Bilingual authorization credential or score of 3 on SDSU Spanish examination is a prerequisite for course.

Option 2: Outside Specialization (Major Code: 08994) (SIMS Code: 331960)

Core:

DLE 600A Foundations of Democratic Schooling.....3

OR

DLE 600B Foundations of Dual Language Programming for Critical Biliteracy Development.....3

DLE 601 Language Policies and Practices.....3

DLE 650 Curriculum Development for Urban School Communities.....3

Specialization: Nine to 12 units taken outside the Department of Dual Language and English Learner Education with consent of graduate adviser, and a cooperating department or program.

Educational Leadership: Specialization in Postsecondary Education

(Major Code: 08271) (SIMS Code: 331911)

The Master of Arts degree in education with a concentration in educational leadership and a specialization in postsecondary education is intended for students pursuing leadership positions in postsecondary education, foreign school administrators, administrators of educational programs in private industry, civil service, or the nonprofit sector, administrators of technical and vocational programs or school-to-work programs, or those who have other administrative objectives in educational community and government fields.

To apply for admission into the postsecondary education specialization, a student must complete an application for admission to both the university and the postsecondary education specialization program. All applications should include at least two letters of recommendation. Upon admission to the university and the department, all students will discuss the degree curriculum with the graduate adviser during the first semester in the program. Only students who show reasonable promise of success in postsecondary leadership positions will be admitted to this program. In order to continue in the program, the student must demonstrate ongoing academic, professional and personal growth.

Specific Requirements for the Master of Arts degree in Education with a Concentration in Educational Leadership and a Specialization in Postsecondary Education

A minimum of 30 units to include:

- Core program:
 - ARP 610 Educational Leadership.....3
 - ARP 747 Educational Leadership in a Diverse Society.....3
- Six to nine units selected, with the approval of the graduate adviser, from the following:
 - ARP 611 Program Development and Evaluation in Postsecondary Education.....3
 - ARP 631 Seminar in Teaching in Postsecondary Education.....3
 - ARP 680 Seminar in Administration, Rehabilitation and Postsecondary Education..... 2-6
 - ARP 720 Human Resource Development in Postsecondary Education.....3
 - ARP 730 Seminar in Adult Learning.....3
 - ARP 740 Advanced Seminar in Administration, Rehabilitation, and Postsecondary Education.....3
 - ARP 755 Governance and Policy Development in Postsecondary Learning Organizations.....3
- Electives selected with the approval of the graduate adviser (6-9 units).
- ED 690 Methods of Inquiry.....3
- Research: Three to six units selected from the following:
 - ED 791A Evaluation Techniques.....3
 - ED 791B Practicum: Evaluation..... 1-3
- OR**
- ED 795A-795B Seminar..... 3-3
- OR**
- ED 799A Thesis..... 3 (Cr/NC/RP)

Educational Leadership: Specialization in Student Affairs in Postsecondary Education

(Major Code: 08271) (SIMS Code: 331913)

The Master of Arts degree in education with a concentration in educational leadership and a specialization in student affairs in postsecondary education is intended for students pursuing positions in postsecondary education, student services professionals, or those who have other administrative objectives in educational fields.

Education

To apply for this concentration with a specialization in student affairs in postsecondary education, a student must complete an application for admission to both the university and the student affairs postsecondary education program. All applications should include at least two letters of recommendation. Upon admission to the university and the department, all students will discuss the degree curriculum with the graduate adviser during the first semester in the program. Only students who show reasonable promise of success in student affairs leadership positions will be admitted to this program. In order to continue in the program, the student must demonstrate ongoing academic, professional, and personal growth.

Specific Requirements for the Master of Arts degree in Education with a Concentration in Educational Leadership and a Specialization in Student Affairs Postsecondary Education

A minimum of 30 units to include:

1. Core program:

ARP 610	Educational Leadership.....	3
ARP 620	Student Affairs in Higher Education	3
2. Nine to 12 units selected, with the approval of the graduate adviser, from the following:

ARP 621	Theoretical Foundations of Student Affairs.....	3
ARP 622	Communication and Group Process in Student Affairs Leadership	3
ARP 623	Seminar in Critical Leadership Issues in Student Affairs.....	3
ARP 680	Seminar in Administration, Rehabilitation and Postsecondary Education.....	2-6
ARP 730	Seminar in Adult Learning	3
ARP 740	Advanced Seminar in Administration, Rehabilitation and Postsecondary Education.....	3
ARP 747	Educational Leadership in a Diverse Society.....	3
ARP 760	Internship in Postsecondary Educational Leadership.....	1-6 (Cr/NC/RP)
3. ED 690 Methods of Inquiry.....3
4. Research: Three to six units selected from the following:

ED 791A	Evaluation Techniques.....	3
ED 791B	Practicum: Evaluation.....	1-3

OR

ED 795A-795B	Seminar	3-3
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OR

ED 799A	Thesis.....	3 (Cr/NC/RP)
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Educational Leadership: Specialization in PreK-12 (Major Code: 08271) (SIMS Code: 331912)

The Master of Arts degree in education with a concentration in educational leadership and a specialization in PreK-12 is intended for students pursuing administrative posts in PreK-12 educational organizations, including school business managers. Students who intend to pursue administrative careers in California public schools, grades PreK-12, need to obtain the Preliminary Administrative Services Credential and then the Clear Administrative Services Credential. Students in the PreK-12 specialization may earn a degree without earning a California Preliminary Services Credential or in combination with the credential.

To apply for admission into the PreK-12 specialization, a student must complete an application for admission to both the university and the Department of Educational Leadership. All applications should include two letters of recommendation from two supervisory administrators. Upon admission to the university and the program, all students will discuss the degree curriculum with the graduate adviser during the first semester in the program.

Specific Requirements for the Master of Arts degree in Education with a Concentration in Educational Leadership and a Specialization in PreK-12 Educational Leadership

A minimum of 30 units to include:

1. Core program: Six units.

EDL 600	Organizational and Systems Leadership	3
EDL 610	Visionary Leadership.....	3
2. Six to nine units selected, with the approval of the graduate adviser, from the following:

EDL 630	School Improvement Leadership	3
EDL 650	Professional Learning and Growth Leadership.....	3
EDL 652	Seminar in Instructional Leadership	3
EDL 655	Communication, Problem Solving, and Decision Making in PK-12	3
EDL 680	Seminar in PreK-12 Educational Administration	2-6 (Cr/NC)
3. Electives selected with the approval of the graduate adviser (6-9 units).
4. ED 690 Methods of Inquiry.....3
5. Research: Three to six units selected from the following:

ED 791A	Evaluation Techniques.....	3
ED 791B	Practicum: Evaluation	1-3

OR

ED 795A-795B	Seminar	3-3
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OR

ED 799A	Thesis.....	3 (Cr/NC/RP)
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The Master of Arts degree in Education with a concentration in Educational Leadership is also offered at the Imperial Valley Campus. For course requirements consult the Imperial Valley Campus Bulletin.

Specific Requirements for the Preliminary Administrative Services Credential: (Credential Code: 00501)

Successful completion of the credential coursework and fieldwork requirements, including a passing score on the California Administrator Performance Assessment (CalAPA), will qualify candidates for an EDL departmental recommendation for the California Preliminary Administrative Services Credential (PASC).

Admission Requirements: Candidates must be admitted to SDSU and to the Department of Educational Leadership. Admission to the Department of Educational Leadership requires that students possess a master's degree in education or related field from an accredited university or be concurrently enrolled in a master's degree program; have three years of teaching, pupil personnel service, librarian, or social work experience, have passed the CBEST; have two letters of recommendation from supervisory administrators and presently be working in a PreK-12 teaching environment where they can accomplish the needed fieldwork/practicum experiences.

Required courses (31 units):

- | | | |
|---------|---|---------------|
| EDL 600 | Organizational and Systems Leadership | 3 |
| EDL 610 | Visionary Leadership..... | 3 |
| EDL 630 | School Improvement Leadership | 3 |
| EDL 640 | Community Leadership | 3 |
| EDL 650 | Professional Learning and Growth Leadership..... | 3 |
| EDL 652 | Seminar in Instructional Leadership | 3 |
| EDL 655 | Communication, Problem Solving, and Decision Making in PK12 | 3 |
| EDL 660 | Field Experience in Educational Leadership | 10 (Cr/NC/RP) |

Students must maintain a minimum grade point average of 3.0 in all credential coursework with no less than a grade of C+ in any course. Only three units of coursework with a grade of C+ will count towards the certificate. A maximum of three units of coursework can be repeated.

Specific Requirements for the Clear Administrative Services Credential: (Credential Code: 00502)

Candidates pursuing the Clear Administrative Services Credential must be in a credentialed administrative position. The candidate must complete the credential program within five years of initial appointment to an administrative position.

The following are required for admission to the Clear Administrative Services Credential program:

1. An application for admission to the program **OR**
2. Admission to the Ed.D. in Educational Leadership, Concentration in PreK-12 School Leadership at San Diego State University.
3. Possession of a valid Preliminary Administrative Services Credential or a Clear Administrative Services Credential.
4. Possession of a master's degree in Educational Leadership or another field related to educational practice.
5. A letter of formal commitment of participating school district to support field experience requirement.
6. Minimum grade point average of 3.0 in graduate study.
7. A selection interview with program area faculty members.

Program

The program requirements for the Clear Administrative Services Credential are:

EDL 680	Seminar in PreK-12 Educational Administration: Leadership Development (Cr/NC).....	2
EDL 760	Practicum in PreK-12 Educational Organizations (Cr/NC/RP).....	3
Electives selected with approval of adviser from Ed.D. in Educational Leadership, Concentration in PreK-12 School Leadership.....		
		0-6

Issuance of the Clear Administrative Services Credential requires completion of two years of successful, full-time, K-12 administrative experience earned while holding the Preliminary Administrative Services Credential.

Elementary Curriculum and Instruction

(Major Code: 08021) (SIMS Code: 331946)

No new students are being admitted to this program until further notice.

The Master of Arts degree in education with a concentration in elementary curriculum and instruction is designed to increase professional competence in the form of more breadth, depth, and technical skill in curriculum and instruction, either generally or in selected areas of specialization.

1. Prerequisite: A basic background in education (minimum of 12 units), preferably holds a credential from California or certified to teach in another state. Coursework to include curriculum and methods, growth and development, educational psychology, and history and philosophy of education. The School of Teacher Education will consider a letter of petition from individuals without professional units or a California teaching credential with equivalent experience related to the field of education.
2. ED 690 Methods of Inquiry3
3. Core program (15 units): The core is composed of courses in education and related fields, selected with the approval of the adviser on the basis of the student's interests, professional needs and goals. The core program will include:
 - a. Teacher Education 600, Curriculum Development in Education (3 units); or related course with approval of adviser.
 - b. Teacher Education 626, Advanced Educational Psychology; or Teacher Education 655, Sociocultural Foundations of American Education; or related course with approval of adviser.

- c. Teacher Education 610C, Seminar in Science in Elementary Education; or Teacher Education 630, Seminar in Literacy and Language Arts; or Teacher Education 631, Seminar in Language Arts; or related course with approval of the adviser (3 units).
 - d. 500-, 600-, 700-numbered courses in teacher education with the approval of the adviser (3-6 units).
 - e. 500-, 600-, 700-numbered courses in education or related fields selected with the approval of the adviser (up to 6 units).
4. Electives (6-9 units) selected with the approval of the adviser.
 5. Special Study and Research (3-6 units): Education 791A-791B Evaluation (3-1 units); or Education 795A-795B, Seminar (3-3 units); or Education 799A, Thesis (3 units) Cr/NC/RP.

The program of study must include at least 15 units of 600- and 700-level courses.

The Master of Arts degree in Education with a concentration in Elementary Curriculum and Instruction is also offered at the Imperial Valley Campus.
For course requirements consult the Imperial Valley Campus Bulletin.

Mathematics Education (K-8)

(Major Code: 17012) (SIMS Code: 331947)

No new students are being admitted to this program until further notice.

The Master of Arts degree in education with a concentration in K-8 mathematics education is designed to provide teachers a deeper understanding of issues in learning and teaching mathematics in grades K-8, and increased knowledge of current trends, research, and assessment in mathematics education. Students can expect to acquire new perspectives and skills about mathematics teaching, specialized knowledge of children's mathematical understanding, and preparation for leadership among teachers in mathematics teaching.

1. Prerequisites: Applicant must have at least one year of teaching experience or consent of program coordinator, and must file an application for admission to both the university and the K-8 mathematics education program. Successful applicants must demonstrate personal, professional, and academic potential for success in this program. For specific admission criteria see the K-8 Mathematics Education Master of Arts program website at <http://coe.sdsu.edu/departments/MathEd/master.htm>.
2. Core Program (12 units):

MTHED 600	Teaching and Learning Mathematics in Early Grades (Pre-K to 4).....	3
MTHED 601	Teaching and Learning Mathematics in the Middle Grades	3
MTHED 603	Seminar on Learning Theories in Mathematics Education	3
TE 511	Assessment in Mathematics Education	3
3. Electives (9 units): With the approval of the adviser, select three courses from the following:

MTHED 604	Seminar on Teaching Issues in Mathematics.....	3
MTHED 605	Algebra in the 7-14 Curriculum.....	3
MTHED 606	Selected topics in 7-14 Mathematics Curriculum.....	3
DLE 553	Language Assessment and Evaluation in Multicultural Settings.....	3

Education

DLE 601	Language Policies and Practices.....	3
LDT 540	Educational Technology.....	3
LDT 541	Educational Web Development.....	3
LDT 570	Advanced Teaching with Technologies.....	3
LDT 572	Technology for Course Delivery	3
TE 790	Seminar in Teacher Education.....	3
Or three units of a 500- or 600-level course approved by the program coordinator.		
4.	Research (9 units):	
ED 690	Methods of Inquiry.....	3
ED 795A	Seminar	3
ED 795B	Seminar	3

Reading Education

(Major Code: 08301) (SIMS Code: 331964)

The Master of Arts degree in education with a concentration in reading education is designed to provide increased knowledge and skill for those who are or wish to become reading and literacy leadership specialists in public or private schools and clinics. The program prepares candidates to teach, tutor, develop curriculum, offer in-service instruction and administer reading centers for students ranging from kindergarten through community college, university, and adult levels. This degree is often earned concurrently with a California Reading and Literacy Leadership Specialist Credential, which has a number of common requirements.

- Prerequisites: A valid California teaching credential, grades K-12, or completion of a minimum of 12 units of professional coursework in education, to include a basic course in methods and materials for teaching reading.
- Core program (31 units)

ED 690	Methods of Inquiry.....	3
TE 530	Children's /Adolescents' Literature	3
TE 631	Seminar in Language Arts.....	3
TE 633	Leadership in Literacy Education	3
TE 635	Assessment of Reading and Language Arts.....	3
TE 637	Instructional Strategies for Reading and Language Arts.....	4
TE 639	Literacy and Language	3
OR		
TE 677	Research-Based Pedagogy for Diverse Learners.....	3
TE 640	Planning for Teaching and Assessment in Writing.....	3
- ED 795A-795B Seminar.....3-3
OR
ED 799A Thesis..... 3 (Cr/NC/RP)
AND
Electives.....3

Secondary Curriculum and Instruction

(Major Code: 08031) (SIMS Code: 331973)

No new students are being admitted to this program until further notice.

The Master of Arts degree in education with a concentration in secondary curriculum and instruction, is designed as the base for applicants to increase professional competence in any of the fields typically taught in secondary schools, and for obtaining those competencies and technical skills in curriculum and instruction either generally, or in selected areas of specialization.

- Prerequisite: A basic background in education (12 units), preferably holds a credential from California or certified to teach in another state. The School of Teacher Education will consider a letter of petition from individuals without professional units or a California teaching credential with equivalent experience related to the field of education.
- ED 690 Methods of Inquiry.....3

- Core program (6 units): to include TE 600, Curriculum Development in Education (3 units); three units from TE 655, Sociocultural Foundations of American Education; or related courses with approval of adviser.
- Electives (15 units) selected with the approval of the graduate adviser on the basis of the student's interests, goals and needs. A minimum of three units must be in 600- or 700-numbered courses. A maximum of six units may be selected from cognate fields outside the College of Education.
- ED 791A Evaluation Techniques.....3
AND
ED 791B Practicum: Evaluation 1-3 || **OR** | |
| ED 795A-795B Seminar | 3-3 |
| **OR** | |
| ED 799A Thesis..... | 3 (Cr/NC/RP) |
| **AND** | |
| Electives..... | 3 |

The Master of Arts degree in Education with a concentration in Secondary Curriculum and Instruction is also offered at the Imperial Valley Campus.
For course requirements consult the Imperial Valley Campus Bulletin.

Special Education

(Major Code: 08081) (SIMS Code: 331982)

The Master of Arts degree in education with a concentration in special education provides the professional educator with advanced knowledge and skills in special education. This degree has many requirements in common with the Clear Professional Induction Specialist Credentials in Special Education and may be earned concurrently with those credentials. The M.A. degree can include specializations in the following areas: autism, early childhood, developing gifted potential, mild/moderate disabilities, moderate/severe disabilities, and vocational transition. All programs must be approved by the graduate adviser. Although the M.A. degree is usually linked to a teacher credential, it is open to individuals with undergraduate degrees in a wide range of disciplines in consultation with the graduate adviser.

Specialization in Autism

(Major Code: 08081) (SIMS Code: 331994)

Prerequisites: Special Education 527 or Basic California Teaching Credential with EEL endorsement/CLAD/BCLAD credential and Special Education 553.

Core (12 units): Education 690* and nine units selected from approved coursework in specialization area.

Advanced Specialization (10-13 units): Special Education 676, 681B, and seven units of electives selected with approval of adviser.

Culminating Experience (6 units): Education 795A-795B.

Specialization in Developing Gifted Potential

(Major Code: 08081) (SIMS Code: 331991)

Core (15 units): Special Education 644, 771, and nine units selected with approval of adviser.

Related Fields (6-9 units 500-level or above) by advisement or Advanced Specialization (6 units): Special Education 650 and three units of electives selected with approval of adviser.

Research (6-9 units): Education 690* and Education 791A, 791B; or 795A*-795B*; or 799A.

Specialization in Early Childhood

(Major Code: 08081) (SIMS Code: 331983)

Prerequisites: Special Education 500, 527 or Basic California Teaching Credential with EEL endorsement/CLAD credential, Special Education 528; or Special Education 527 and Preliminary or Professional California credential in Early Childhood Special Education.

Core (12 units): Special Education 651, Education 690*, and six units selected from approved coursework in specialization area.

Advanced Specialization: Special Education 681B and 9-12 units selected from approved electives at 500-level or above.

Culminating Experience (3-6 units): Education 795A*-795B* or Education 791A, 791B or Education 799A.

Specialization in Mild/Moderate Disabilities

(Major Code: 08081) (SIMS Code: 331992)

Prerequisites: Special Education 500, 524, 527 or Basic California Teaching Credential with EEL endorsement/CLAD credential; or Special Education 527 and Preliminary or Professional California credential in Mild/Moderate Disabilities.

Core (12 units): Special Education 651, Education 690*, and six units selected from approved coursework in specialization area.

Advanced Specialization: Special Education 681A and 9-12 units selected from approved electives at 500-level or above.

Culminating Experience (3-6 units): Education 795A*-795B* or Education 791A, 791B or Education 799A.

Specialization in Moderate/Severe Disabilities

(Major Code: 08081) (SIMS Code: 331993)

Prerequisites: Special Education 500, 525, 527 or Basic California Teaching Credential with EEL endorsement/CLAD credential; or Special Education 527 and Preliminary or Professional California credential in Moderate/Severe Disabilities.

Core (12 units): Special Education 651, Education 690*, and six units selected from approved coursework in specialization area.

Advanced Specialization: Special Education 681B and 9-12 units selected from approved electives at 500-level or above.

Culminating Experience (3-6 units): Education 795A*-795B* or Education 791A, 791B or Education 799A* in departmentally approved sections.

Specialization in Vocational Transition

(Major Code: 08081) (SIMS Code: 331990)

Prerequisite: Special Education 501 or Administration, Rehabilitation and Postsecondary Education 684.

Core (15-18 units): Education 690*; 6-9 units selected from (a) Special Education 524 or 525; (b) Special Education 645 or 648; (c) Special Education 771 or Administration, Rehabilitation and Postsecondary Education 744 or Counseling and School Psychology 730; Education 690*.

Advanced Specialization: Special Education 681A or 681B, and 6-9 units selected from approved coursework in Special Education or Administration, Rehabilitation and Postsecondary Education.

Culminating Experience (3-6 units): Education 795A*-795B* or Education 791A, 791B or Education 799A.

* In departmentally approved sections.

Master of Arts in Teaching Degree

Admission to the Degree Curriculum

Applicants must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. An applicant may apply six units of adviser approved post-baccalaureate teacher credential work from an accredited institution to the Master of Arts in Teaching (MAT) degree. Teachers wishing to participate in this program who have not completed a post-baccalaureate teaching credential from an accredited institution may still apply to the program by providing evidence of a valid teaching credential from an accredited institution, in addition to fulfilling the other admission requirements, and taking six additional units of adviser-approved post-baccalaureate MAT coursework. It is recommended that the coursework for the MAT begin within five years of completion of the basic teacher credential program. In order to be awarded credit of a maximum of six post-baccalaureate credential units in the MAT, these units, along with the course of study units, cannot be more than seven years old at the time of completion of the MAT.

Advancement to Candidacy

A student desiring a Master of Arts in Teaching degree may be advanced to candidacy upon completion of 15 units to include a minimum of six core units and six units from the area of concentration.

Specific Requirements for the Master of Arts in Teaching Degree

(Major Code: 08292)

All candidates for the MAT will be required to take a comprehensive examination. This written examination is designed to evaluate achievement in the specific area of the student's concentration. A student is eligible to take the comprehensive examination only after advancement to candidacy. The examination will be offered near the mid point of each semester and near the end of the summer. A reservation must be made at least one week in advance of the examination.

Master of Arts in Teaching Degree

The Master of Arts in Teaching (MAT) is designed to provide master's level professional development as part of a teacher development continuum for K-12 teachers. The goal is to increase teachers' expertise in curriculum and instruction in order to ensure learning and achievement for students from diverse populations. Up to six units from credential or other graduate program may count as electives in this program. The degree has six concentrations from which teachers can select, depending on their interests and educational backgrounds. The six concentrations include Elementary Education, Secondary Education, Reading Education, Mathematics Education, Science Education, and Language Arts Education (summer only). Students select courses in collaboration with the graduate adviser.

1. Prerequisite: A basic teaching credential to include curriculum and methods, child and adolescent growth and development, educational psychology, and history and philosophy of education.
2. Core courses (9 units): The core is comprised of three 3-unit courses, one selected from each area.

Area 1:		<i>Advanced Learning Theory and Applications to the Classroom</i>
TE 600	Curriculum Development in Education.....	3
TE 626	Advanced Educational Psychology	3
Area 2:		<i>Measurement and Assessment</i>
TE 693	Measuring and Assessing Student Achievement in Schools.....	3
DLE 553	Language Assessment and Evaluation in Multicultural Settings.....	3
Area 3:		<i>Socio-Cultural Foundations</i>
TE 655	Sociocultural Foundations of American Education.....	3
TE 677	Research-Based Pedagogy for Diverse Learners.....	3
DLE 600A	Foundations of Democratic Schooling.....	3
3. Electives (6 units): Students will take two courses at the 500-, 600-, 700-, and 900-level with approval of the graduate adviser.		

Master of Arts in Teaching (MAT) Concentrations

Elementary Education (15 units)

(Major Code: 08292) (SIMS Code: 331948)

Fully-online classes available. Courses will be selected in collaboration with the graduate adviser.

TE 530	Children's/Adolescents' Literature.....	3
TE 600	Curriculum Development in Education.....	3
TE 610C	Seminar in Science in Elementary Education	3
TE 626	Advanced Educational Psychology	3
TE 630	Seminar in Literacy and Language Arts.....	3

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TE 640	Planning for Teaching and Assessment in Writing.....	3
TE 652	Change in Education	3
TE 655	Sociocultural Foundations of American Education.....	2-3
TE 677	Research-Based Pedagogy for Diverse Learners.....	3
TE 693	Measuring and Assessing Student Achievement in Schools.....	3
TE 709	Inclusive Education.....	3
TE 779	Action Research in Learning Environments.....	3
TE 790	Seminar in Teacher Education.....	3-6
DLE 600A	Foundations of Democratic Schooling.....	3
DLE 604	Learning and Teaching Language in a Dual Language Setting.....	3
DLE 650	Curriculum Development for Urban School Communities.....	3
DLE 651	Curriculum, Teaching, and Assessment: ELD and SDAIE	1-3
MTHED 600	Teaching and Learning Mathematics in the Early Grades (Pre-K to 4).....	3
MTHED 601	Teaching and Learning Mathematics in the Middle Grades	3

Secondary Education (15 units) (Major Code: 08292) (SIMS Code: 331949)

Fully-online classes available. Courses will be selected in collaboration with the graduate adviser.

TE 600	Curriculum Development in Education	3
TE 626	Advanced Educational Psychology.....	3
TE 640	Planning for Teaching and Assessment in Writing.....	3
TE 652	Change in Education	3
TE 655	Sociocultural Foundations of American Education.....	2-3
TE 677	Research-Based Pedagogy for Diverse Learners.....	3
TE 693	Measuring and Assessing Student Achievement in Schools.....	3
TE 709	Inclusive Education.....	3
TE 779	Action Research in Learning Environments.....	3
TE 790	Seminar in Teacher Education.....	3-6
DLE 600A	Foundations of Democratic Schooling.....	3
DLE 604	Learning and Teaching Language in a Dual Language Setting.....	3
DLE 650	Curriculum Development for Urban School Communities.....	3
DLE 651	Curriculum, Teaching, and Assessment: ELD and SDAIE	1-3

Reading Education (15 units) (Major Code: 08292) (SIMS Code: 331954)

Courses will be selected in collaboration with the graduate adviser.

TE 530	Children's/Adolescents' Literature	3
TE 635	Assessment of Reading and Language Arts.....	3
TE 639	Literacy and Language	3
TE 779	Action Research in Learning Environments.....	3

One additional course selected at the 500-, 600-, 700-level with approval of graduate adviser (3 units).

Mathematics Education (15 units) (Major Code: 08292) (SIMS Code: 331951)

Courses will be selected in collaboration with the graduate adviser.

TE 511	Assessment in Mathematics Education	3
OR another 500-, 600-, 700-level course with approval of graduate adviser (3 units)		
TE 779	Action Research in Learning Environments.....	3
MTHED 600	Teaching and Learning Mathematics in the Early Grades (Pre-K to 4).....	3
MTHED 601	Teaching and Learning Mathematics in the Middle Grades	3
MTHED 603	Seminar on Learning Theories in Mathematics Education	3

Science Education (15 units) (Major Code: 08292) (SIMS Code: 331952)

Courses will be selected in collaboration with the graduate adviser.

TE 600	Curriculum Development in Education.....	3
TE 610C	Seminar in Science in Elementary Education	3
TE 779	Action Research in Learning Environments.....	3
TE 790	Seminar in Teacher Education (Science in Secondary Education).....	3
N SCI 596	Special Topics in Natural Science	3
OR another 500-, 600-, 700-level course with approval of graduate adviser.		

Language Arts Education (Summer Only) (15 units) (Major Code: 08292) (SIMS Code: 331953)

Courses will be selected in collaboration with the graduate adviser.

TE 530	Children's/Adolescents' Literature	3
TE 630	Seminar in Literacy and Language Arts.....	3
TE 638	Topics in Reading Education	6
TE 640	Planning for Teaching and Assessment in Writing.....	3
TE 779	Action Research in Learning Environments.....	3

Master of Science Degree in Child Development

General Information

The Department of Child and Family Development (CFD) offers interdisciplinary graduate study leading to the Master of Science degree in child development. Graduate teaching assistantships and graduate assistantships in child development may be available to a limited number of qualified students.

The Master of Science degree in child development is one of only four child development programs available in the CSU. With 101 community college child development programs in California and 17 undergraduate programs within the CSU system, the M.S. program in child development plays a major role in training professionals for the State and region. The Department of Child and Family Development plays a leadership role in integration of curricula for community colleges and the CSU.

Child development is an interdisciplinary area of study. The Master of Science degree, administered by the faculty from the Department of Child and Family Development, draws on the expertise of a multidisciplinary faculty who are committed to the study of children within the context of diverse families and communities. The focus of the department is on the study of social emotional development as the underlying foundation for all other areas of development including physical, cognitive, motor and language. The program represents an interdisciplinary field of study with a basic assumption that development takes place

across the lifespan in the context of the family, community, and public policy. The department's emphasis on primary prevention prepares students with hands-on experiences through community-based learning.

The focus of the program is on social and emotional development and on child development in context (i.e., early childhood education communities, families, programs, and schools). This program includes a family focus, can help students move on to Ph.D. programs in related areas, and can further their professional expertise and credentials in areas related to children and families.

Areas of emphasis in the program include: atypical development, development across the lifespan, early childhood development, enhancing school readiness and preparing teachers to work with families, family processes, influences of language and culture, intervention, parent-child intergenerational relationships, prevention, risk and resilience, and socio-emotional and behavior support in educational settings and homes. Faculty areas of study include attachment, socio-emotional development and school readiness, continuity of care, child abuse and relationship violence, intergenerational relationships, and parent education and involvement in education. Faculty work in collaboration with community agencies and programs are to include but are not limited to: SDSU Children's Center, Head Start, First 5, San Diego Unified School District, San Diego County Office of Education, San Diego County Health and Human Services—Office of Violence Prevention, San Diego County Health and Human Services Child and Adolescent Services, Children Mental Health Services, YMCA, Exceptional Family Resource Center, Home Start, among others. Students can choose a research project or thesis. In addition to the thesis, there are projects on agencies and programs in the community. Students will have the opportunity to develop projects in the community and implement best practices of continuity of care, intergenerational programs, etc.

Graduates with the Master of Science degree qualify for administrator, coordinator, or service provider positions in preschools, day care centers, schools, hospitals, hospice centers, public welfare agencies, family service agencies, family planning clinics, community programs, business and industry, and government agencies. Graduates with an advanced certificate offered by the Department of Child and Family Development also qualify for positions related to early childhood mental health and behavioral health. Graduates from the Master of Science degree program also qualify as community college instructors and can continue their education for the doctoral degree in human development or a related field.

¹ In collaboration with the Grossmont-Cuyamaca District strategies for competency-based curricula across all levels of child development programs throughout the State are being designed.

Admission to the Degree Curriculum

Students will be admitted to the graduate program in child development only after careful consideration of their qualification by the child development faculty. All students must satisfy the general requirements for admission to the university with graduate standing as described in Part Two of this bulletin. Students who do not fully meet the requirements for admission with classified graduate standing may be considered for conditionally classified graduate standing upon recommendation of the admissions committee and the graduate adviser. In addition, a student applying for admission to the graduate program in child development, including those who hold an advanced certificate offered by the Department of Child and Family Development must meet the following graduate admission requirements.

To qualify for admission to the master's degree program in child development, the student must have:

1. A bachelor's degree in child development or related fields or consent of the Child Development Faculty Governing Board.

2. Completion of prerequisites for the program of study. If students' undergraduate preparation is deemed insufficient, students will be required to complete specified courses (Child and Family Development 375A, 375B, 375C, and two units from Child and Family Development 378A, 378B, 378C, 378D) in addition to the minimum 30-32 units required for the master's degree in child development.
3. A grade point average of 3.0 in the last 60 semester units attempted.
4. Completion of the GRE General Test.
5. Completion of program application form.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin. Additionally, a student who has selected Plan A must have identified a thesis adviser and have taken Child and Family Development 790 with a grade of B (3.0) or better. If the student has been approved to follow Plan B, they must complete Education 690 with a grade of B (3.0) or better and complete required coursework prior to enrolling in 799C.

Specific Requirements for the Master of Science Degree in Child Development

(Major Code: 08231) (SIMS Code: 330909)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, students must complete a graduate program of 30-32 units, to include at least 18 units of 600- and 700-numbered courses.

Students pursuing the Master of Science degree in child development may select Plan A (thesis/project) or Plan B (comprehensive examination) and must complete the following:

1. Plan A core sequence: Child and Family Development 634A, 660A, 670B, 790, and Education 690 (15-16 units);
OR
2. Plan B core sequence: Child and Family Development 634A, 660A, 670B, and Education 690 (12-13 units).
3. Electives: Remaining units will consist of 500-, 600-, and 700-level child and family development courses. (Graduate students may also use 500-, 600-, and 700-level courses from related disciplines with approval of the graduate adviser).
4. Capstone: Upon completion of sections 1 or 2 and 3, students selecting Plan A enroll in Child and Family Development 799A. Students selecting Plan B enroll in Child and Family Development 799C.

NOTE: Students who completed the advanced certificate offered by the Department of Child and Family Development will have earned 12 units towards the Master of Science degree in child development. Students who select Plan A and who have completed the advanced certificate offered by the Department of Child and Family Development must complete 20 additional units to include Child and Family Development 634A, 660A, 790, 799A, and Education 690. Students who select Plan B and have completed the advanced certificate offered by the Department of Child and Family Development must complete 20 additional units to include Child and Family Development 634A, 660A, and Education 690.

Concentration in Early Childhood Mental Health

(Major Code: 08231) (SIMS Code: 330809)

The Master of Science degree in child development with a concentration in early childhood mental health is designed to prepare students who wish to pursue California LPCC licensure. Students must complete, in consultation with an adviser, an official program of study that includes 60 units of 500-, 600-, and 700-numbered required and elective courses (up to 15 units can be taken from 500-level courses with the approval of the adviser). The 60 units program of study is aligned with the state licensure requirements that include 13 core content areas (39 units), advanced coursework (15 units), and 280 hours of supervised clinical experience

Education

(6 units). Students must maintain a B average throughout the program and pass relevant qualifying/clinical examination to complete the Master of Science degree.

To fulfill the educational requirements to qualify for state licensure in LPCC as published by the California Board of Behavioral Sciences laws and regulations related to the practice of marriage and family therapy, licensed social work, licensed educational psychologists, and licensed professional clinical counselors (Senate Bill 788), students must complete an additional 27 units selected from the following courses as they are aligned with the core content areas as delineated in the requirements:

1. Counseling and Psychotherapeutic Theories and Techniques
CFD 634B Seminar in Counseling Theories and Techniques3
 2. Human Growth and Development Across the Lifespan
CFD 670B Seminar in Human Development Theories-Intervention and Prevention Lifespan Approach3
 3. Career Development Theories and Techniques
CFD 660A Seminar in Early Childhood Mental Health Career Development3
 4. Group Counseling Theories and Techniques
CSP 670 Theory and Process of Group Counseling3
 5. Assessment, Appraisal, and Testing
CSP 623 Ecobehavioral Assessment – Intervention3
 6. Multicultural Counseling Theories and Techniques
CSP 615 Seminar in Multicultural Dimensions in Counseling3
 7. Principles of Diagnosis, Treatment Planning, Prevention of Mental and Emotional Disorders, and Dysfunctional Behavior
CSP 618 Mental Health Recovery and the DSM: A Social Justice Perspective3
- OR**
- SWORK 720 Seminar in Selected Topics in Human Behavior and Social Environment3
8. Research and Evaluation
ED 690 Methods of Inquiry3
 9. Professional Orientation, Ethics and Law in Counseling, California Law and Professional Ethics
CFD 660B Seminar in Professional Law and Ethics in Counseling3
 10. Psychopharmacology (includes biological bases of behavior)
CSP 694 Psychopharmacology for Marriage and Family Therapists and Counseling3
 11. Addictions Counseling (substance abuse, co-occurring disorders)
CSP 687 Family and Systemic Treatment of Substance Abuse3
- OR**
- SWORK 758 Seminar in Social Work and Selected Fields of Practice*3

*Focus on addictions

12. Crisis/Trauma Counseling (multidisciplinary responses to crises, emergencies or disasters)
CSP 650 Trauma and Crisis Counseling in Multicultural Community Context3
13. Advanced Counseling and Psychotherapeutic Theories and Techniques
CFD 634A Seminar in Family Therapy Theory and Techniques3
14. Advanced Coursework
In accordance with licensing requirements (4999.33 section 2), students are required to take 15 units of advanced coursework to develop knowledge of specific treatment

issues and/or populations. The advanced coursework will focus on early childhood mental health in alignment with the concentration of this degree. The student may take courses not listed below upon approved by the student's program adviser.

- | | | |
|----------|--|-----|
| CFD 537 | Child Abuse and Family Violence..... | 3 |
| CFD 595 | Early Childhood Mental Health: Theory and Practice..... | 3 |
| CFD 670A | Seminar in Human Development Theories-Attachment and Affect Regulation in Young Children | 3 |
| CFD 671B | Seminar in Supporting Early Childhood Mental Health-Counseling and Psychotherapeutic Techniques and Theories | 3 |
| CSP 635 | Sexuality and Intimacy in Couple and Family Therapy and Counseling..... | 1-2 |
15. Supervised Clinical Experience
To comply with LPCC requirements students must complete at least 6 semester units of supervised practicum to obtain the required 280 hours of supervised experience for licensure:
CFD 792 Advanced Clinical Experience and Group Supervision..... 6 (Cr/NC)

Students must purchase professional liability insurance in order to participate in the clinical experience component of the program. A background check, fingerprint clearance, and proof of negative TB test.

Post-Graduation Licensure Requirements

Upon completion of the degree, students may register as Professional Clinical Counselor Intern to complete required post-degree supervised clinical hours for licensure. Interns must complete 3,000 hours supervised experience over a period of no less than two years, including not less than 1,750 hours of direct counseling with individuals or groups in a clinical mental health counseling setting, and 150 hours in a hospital or community mental health setting.

Examination: Passing score on the National Clinical Mental Health Counselor Examination (NCMHCE), recently adopted as the licensure examination for California LPCCs, and the Jurisprudence and Ethics Examination. Both examinations will be administered by the California Board of Behavioral Sciences.

Master of Science Degree in Counseling

General Information

The Master of Science degree in counseling provides an integrated sequence of study in the theories, research, and practice of counseling. The degree preparation offers a core of competencies and experiences with specialized study and experiences provided via defined concentrations in marriage and family therapy, multicultural community counseling community-based block, or school counseling.

Applicants interested in the school psychology program should refer to the section on the Ed.S. degree in school psychology.

Course offerings are organized by professional concentration. The majority are sequenced in year-long blocks. Most students attend full time (a minimum of nine units per semester), although limited part-time study is offered.

The following departmental courses may be open to students who have not been accepted into a program and are interested in exploring departmental offerings: Counseling and School Psychology 300, 400, 401, 420, 450, and 460. See the department website at <http://edweb.sdsu.edu/csp/>.

Financial Assistance

The department sponsors the Counseling and School Psychology Loan Fund honoring Professors Leonard Strom and John Schmidt which along with other university-wide programs, is administered by the Office of Financial Aid and Scholarships. The department offers the Gertrude Bell scholarship to one first

year student accepted to one of the four programs. Other forms of financial assistance administered by the university are presented elsewhere in this bulletin.

Admission to the Degree Curriculum

Applications for the M.S. in counseling with a concentration in marriage and family therapy, multicultural community counseling community-based block, or school counseling are considered only once a year. Applications are accepted between October 1 and December 15. We urge you to apply early. For detailed instructions on application procedures, applicants should consult the website <http://edweb.sdsu.edu/csp/> or contact the program director through the Department of Counseling and School Psychology, College of Education, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-1179.

Applicants must submit separate applications to the university Graduate Admissions and to the program. Applicants receive separate notifications of application status for each application. No minimum set of qualifications in any way guarantees admission. Admission to the university does not guarantee recommendation for admission from the program. The program admissions committee makes the recommendations for admission to the department faculty and chair who makes the final recommendation to the university Graduate Admissions. Submitted application materials may not be returned or forwarded to other academic units.

The admissions process for each program is comprised of (1) a review of written application materials that include a program application, academic transcripts, GRE scores, personal statements, three letters of recommendation, a curriculum vitae or resume, and CBEST scores (for school counseling only) and (2) a group interview process that includes a variety of small and large group interactive experiences. Assessment for admission is based on four categories of readiness: academic, cross-cultural, interpersonal, and professional.

Applicants who wish to apply to more than one concentration (program) must apply separately to each program. They will be considered through the program's specific admissions review process. Applicants accepted to more than one program may not simultaneously enroll in marriage and family therapy, multicultural community counseling community-based block, or school counseling.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy, as described in Part Four of this bulletin and be recommended by the faculty. A student may be advanced to candidacy when the official program for the Master of Science degree has been filed and after having earned a minimum grade point average of 3.0 in at least 24 units listed on the official program.

Specific Requirements for the Master of Science Degree in Counseling

(Major Code: 08261) (SIMS Code: 331001)

In addition to meeting the requirements for admission to the university with classified graduate standing, the student must satisfy the basic requirements for the master's degree described in Part Four of this bulletin. In addition, the student must meet the requirements specified below.

Selection of Plan A or Plan B

The selection of Plan A, the thesis or project or Plan B, the comprehensive examination plan, is made in consultation with the adviser at the time the official program of study is filed. Plan A thesis is designed for students who have a particular research problem they wish to investigate in some detail. The Plan A project is expected to be a rigorous application of research and theory in a professional endeavor. The comprehensive examination option for Plan B requires demonstration of the integration and application of theory, research, and techniques. It is expected that the student will take the comprehensive examination concurrently with or following enrollments in Counseling and School Psychology 710A or 710B. The examination is offered near the end of each semester. Information is available from the Counseling and School Psychology office, the student's adviser, the department website, or the concentration materials.

Course Requirements

Students are expected to consult with their adviser prior to taking any coursework leading to the master's degree. Selections of courses have been designated for the concentrations and must be reviewed with the adviser.

The student must complete a minimum of 60 units of 500-, 600-, 700-numbered courses, including:

1. Common Core (6 units):

ED 690	Methods of Inquiry.....	3
CSP 600	Cross-Cultural Counseling Communication Skills.....	2
CSP 600L	Cross-Cultural Counseling Prepracticum.....	1 (Cr/NC)
2. Foundations (a minimum of 9 units):

CSP 601	Theoretical Foundations of Counseling and Marriage and Family Therapy.....	3
CSP 610B	Determinants of Human Behavior: Social and Cultural.....	1-3
CSP 610C	Determinants of Human Behavior: Development.....	1-3
CSP 610D	Determinants of Human Behavior: School Learning.....	1-3
CSP 610E	Determinants of Human Behavior: Biological.....	1-3
CSP 615	Seminar in Multicultural Dimensions in Counseling.....	3
3. Theory, Research, and Techniques (a minimum of 12 units):

CSP 622A	Ecosystems Assessment – Intervention I: Students.....	3
CSP 623	Ecobehavioral Assessment – Intervention.....	3
CSP 625	Marriage and Family Therapy Theories and Best Practices I.....	3
CSP 640	Testing and Assessment for Marriage and Family Therapists.....	2
CSP 662A	Counseling Interventions with Children and Adolescents: Marriage and Family Therapy.....	3

OR

CSP 662B	Counseling Interventions with Children and Adolescents: School Counseling and School Psychology.....	3
CSP 670	Theory and Process of Group Counseling.....	2
CSP 680	Theory and Process of Consultation.....	3
4. Integration and Application of Theory, Research, and Techniques (a minimum of 6 units):

CSP 730	Fieldwork in Counseling.....	2-6 (Cr/NC)
CSP 740	Practicum: Individual Counseling.....	1-6 (Cr/NC)
CSP 755	Practicum I: Marriage and Family Therapy.....	3 (Cr/NC)
CSP 765	Practicum II: Marriage and Therapy.....	3 (Cr/NC)
CSP 780	Family Internship.....	2-12 (Cr/NC)
CSP 785	Marriage and Family Therapy Traineeship.....	1-10 (Cr/NC)
5. Research (a minimum of 3 units):

CSP 710A	Professional Seminar.....	3
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OR

CSP 799A	Thesis.....	3 (Cr/NC/RP)
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6. Electives: 24 units selected with adviser's approval.

Concentration in Marriage and Family Therapy (Major Code: 08261) (SIMS Code: 331006)

The Master of Science in counseling with a concentration in marriage and family therapy is designed to prepare students for practice in the field of marriage and family therapy. The student must complete, in consultation with an adviser, an official program of study that includes a minimum of 60 units of 600- and 700-numbered required and elective courses. To fulfill the educational

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requirements to qualify for California state licensure in marriage and family therapy, as published by the Board of Behavioral Sciences Laws and Regulations relating to the practice of Marriage and Family Therapy, Licensed Social Work, and Licensed Educational Psychologists, article 4980.40, students must complete an additional two to ten units, depending on the students' designed official program of study. The program is grounded in family systems theories and practice and has been awarded candidacy status accreditation by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE).

Included within the course requirements are the clinical experiences of Practicum and Traineeship. Through the practicum and traineeship courses, students must complete a minimum of 500 direct clinical hours of experience with individuals, couples, and families. Two hundred hours of experience must be relational hours with couples and families. Of the 500 clinical hours, 100 may consist of alternative relevant experience, as approved by the student's supervisor and program director. Students must have a minimum of 100 hours of supervision, consisting of both individual and group supervision. Fifty of the supervision hours must be via videotaped or audio taped supervision methods. Twenty-five of the 50 supervision hours must be specifically via live or videotaped supervision methods. All students must purchase professional liability insurance in order to participate in the clinical experience component of the program.

Admission to the program is competitive and includes both a written application and group interview. Applicants are evaluated for academic, interpersonal, multicultural, and professional readiness.

1. Core courses (6 units):

ED 690	Methods of Inquiry.....	3
CSP 600	Cross-Cultural Counseling Communication Skills.....	2
CSP 600L	Cross-Cultural Counseling Prepracticum.....	1 (Cr/NC)

2. Concentration courses (48 units):

Each of the following three courses must be completed (9 units).

CSP 755	Practicum I: Marriage and Family Therapy.....	3 (Cr/NC)
CSP 765	Practicum II: Marriage and Family Therapy.....	3 (Cr/NC)
CSP 785	Marriage and Family Therapy Traineeship.....	3 (Cr/NC)

All students must complete CSP 755, 765, and three units of CSP 785. Students' pacing of their clinical experience will vary; therefore, students will register for additional units of CSP 785 as needed to ensure oversight and supervision of all clinical hours of experience.

CSP 606A	Professional Issues in Mental Health Practice: California Law and Ethics for Marriage and Family Therapy.....	3
CSP 609	Family Life Cycle Development.....	3
CSP 615	Seminar in Multicultural Dimensions in Counseling.....	3
CSP 618	Mental Health Recovery and the DSM: A Social Justice Perspective	3
CSP 625	Marriage and Family Therapy Theories and Best Practices I.....	3
CSP 626	Marriage and Family Therapy Theories and Best Practices II.....	3
CSP 635	Sexuality and Intimacy in Couple and Family Therapy.....	2
CSP 640	Testing and Assessment for Marriage and Family Therapists.....	2
CSP 650	Trauma and Crisis Counseling in Multicultural Community Context.....	3
CSP 662A	Counseling Interventions with Children and Adolescents: Marriage and Family Therapy	3

CSP 670	Theory and Process of Group Counseling.....	3
CSP 670L	Group and Community Counseling Laboratory.....	1 (Cr/NC)
CSP 687	Mental Health, Substance Abuse, and Behavioral Addictions	1-3
CSP 688	Family Systems Assessment of Child Abuse	1
CSP 691	Violence in Couples' Relationships	1
CSP 692	Seminar: Couples Therapy and Evidence-Based Relational Practices	3
CSP 694	Psychopharmacology for Marriage and Family Therapists	2-3
CSP 785	Marriage and Family Therapy Traineeship.....	1 (Cr/NC)

3. Research (6 units):

CSP 710A	Professional Seminar	3
CSP 710B	Professional Seminar	3

CSP 710A and 710B form the capstone experience of the program. Students are required to complete a master's project as part of the requirements of CSP 710A. In CSP 710B, students complete a theory integration paper and a comprehensive examination during their final semester of the program.

Adherence to the Laws and Regulations Relating to the Practice of Marriage and Family Therapy issued by the Board of Behavioral Sciences, the Code of Ethics of the American Association for Marriage and Family Therapy, and the Code of Ethics of the California Association of Marriage and Family Therapists is mandatory. Students who knowingly or unknowingly violate any part of the laws or ethical code may be dismissed from the program without further qualification regardless of coursework completed or other academic achievement.

In addition to the requirement of maintaining a 3.0 GPA, students are reviewed for readiness to begin the clinical training sequence of the program. Students are evaluated regularly for skill development and adherence to legal and ethical standards.

Upon graduation, students apply with the Board of Behavioral Sciences, the California licensing board, for Intern Registration to continue eligibility for licensure. To qualify for marriage and family therapy licensure, students complete a qualifying graduate program, a total of 3,000 hours of clinical experience, and successfully complete two Board of Behavioral Sciences administered written examinations.

For additional written materials and information related to marriage and family therapy educational requirements leading to California Marriage and Family Therapy licensure, membership in marriage and family therapy professional organizations, and objectives related to pursuit of COAMFTE program accreditation, contact the Department of Counseling and School Psychology (<http://edweb.sdsu.edu/csp/>).

Concentration in Multicultural Community Counseling Community-Based Block (Major Code: 08261) (SIMS Code: 331004)

The Master of Science in counseling with a concentration in multicultural community counseling prepares students in the community-based block (CBB) program to become practitioners in the field of community counseling. CBB is a special unit within the Department of Counseling and School Psychology. Social justice theory and democratic shared governance processes help students develop proficiencies to become effective multicultural counselors and social justice change agents in communities, schools, colleges, and/or social service agencies.

The off-campus community-based program is in the heart of two of San Diego's multiethnic neighborhoods and is a "block" program because students are required to take all classes together as a group (or block) for the entire year.

Admission to the program includes both a written application and group interview. Students should possess strong writing skills and complete courses in some or all of these subject areas: abnormal psychology, cultural anthropology, ethnic studies, human development, human sexuality, sociology, and other relevant social science courses prior to applying to the program.

Included within the course requirements are practicum and internship courses. Students must complete a minimum of 280 hours of face-to-face supervised clinical experience counseling individuals, families, or groups. A clinical counselor trainee shall receive an average of at least one hour of direct supervisor contact for every five hours of client contact in each setting. The student must complete a minimum of 60 units of 500-, 600-, 700-numbered courses, including:

1. Common Core (6 units):
 - ED 690 Methods of Inquiry.....3
 - CSP 600 Cross-Cultural Counseling Communication Skills.....2
 - CSP 600L Cross-Cultural Counseling Prepracticum.....1 (Cr/NC)
2. Foundations (8 units):
 - CSP 601 Theoretical Foundations of Counseling and Marriage and Family Therapy.....3
 - CSP 610B Determinants of Human Behavior: Social and Cultural.....1-3
 - CSP 610C Determinants of Human Behavior: Development.....1-3
 - OR**
 - CFD 670 Seminar in Human Development Theories—Intervention and Prevention.....3
 - CSP 610D Determinants of Human Behavior: School Learning.....1-3
 - CSP 610E Determinants of Human Behavior: Biological.....1-3
 - CSP 615 Seminar in Multicultural Dimensions in Counseling.....3
3. Theory, Research, and Techniques (minimum 12 units):
 - CSP 621 Social Justice Democratic Theory, Processes, and Skills.....2
 - CSP 621L Social Justice Democratic Theory, Processes, and Skills Laboratory.....1 (Cr/NC)
 - CSP 622A Ecosystems Assessment-Intervention I: Students.....3
 - CSP 623 Ecobehavioral Assessment-Intervention.....3
 - CSP 640 Testing and Assessment for Marriage and Family Therapists.....2
 - CSP 642 Multicultural Assessment in Individual and Community Counseling.....2
 - CSP 642L Multicultural Assessment in Individual and Community Counseling Laboratory.....1
 - CSP 645 College Planning and Career Development P-16.....3
 - OR**
 - ARP 645B Assessment in Rehabilitation.....3
 - CSP 662A Counseling Interventions with Children and Adolescents: Marriage and Family Therapy.....3
 - CSP 670 Theory and Process of Group Counseling.....2
 - CSP 670L Group and Community Counseling Laboratory.....1 (Cr/NC)
 - CSP 650 Trauma and Crisis Counseling in Multicultural Community Context.....1-3
 - CSP 680 Theory and Process of Consultation.....3
4. Integration and Application of Theory, Research, and Techniques (minimum 6 units):
 - CSP 730 Fieldwork in Counseling.....2-6 (Cr/NC)
 - CSP 740 Practicum: Individual Counseling.....1-6 (Cr/NC)
 - CSP 780 Internship.....2-12 (Cr/NC)

5. Additional requirements for the concentration (minimum 9 units):
 - CSP 606B Professional Issues in Mental Health Practice: Community-Based Block.....3
 - CSP 618 Mental Health Recovery and the DSM: A Social Justice Perspective.....3
 - CSP 635 Sexuality and Intimacy in Couple and Family Therapy and Counseling.....1-2
 - CSP 687 Family and Systemic Treatment of Substance Abuse.....1-3
 - CSP 688 Family Systems Assessment of Child Abuse.....1
 - CSP 691 Violence in Couples' Relationships.....1
 - CSP 694 Psychopharmacology for Marriage and Family Therapists and Counseling.....2-3
6. Research (minimum 3 units):
 - CSP 710A Professional Seminar.....3
 - OR**
 - CSP 799A Thesis.....3 (Cr/NC/RP)

For Plan B, CSP 710A is the capstone experience for the program. Students are required to complete a project as part of the requirements of CSP 710A. Students complete a theory integration paper and comprehensive examination as part of this project. In special circumstances, a student may elect to take the thesis option (Plan A).
7. Electives (0-3 units): Selected in consultation with adviser and may include courses listed above.

Concentration in School Counseling (Major Code: 08261) (SIMS Code: 331041)

The Master of Science in counseling with a concentration in school counseling includes coursework and experiences designed to meet the competencies required for the California Pupil Personnel Services Credential (Credential Code: 00802). This credential authorizes the holder to function as a school counselor in grades K through 12. Applicant must also apply for the M.S. in Counseling. Additional information may be obtained from the Department of Counseling and School Psychology or the director of the school counseling concentration. The sequence of the degree must be planned in consultation with the program director. The M.S. and credential has a minimum of 60 units of 500-, 600-, and 700- numbered courses, including:

1. Prerequisites:
 - a. Admission to the university and the Department of Counseling and School Psychology for concentrated study in school counseling.
 - b. Related undergraduate coursework in anthropology, child development, cultural studies, education, ethnic studies, psychology, and sociology is recommended.
 - c. Students must pass the California Basic Educational Skills Test (CBEST) prior to admission. This examination is required by the California Commission on Teacher Credentialing. Booklets containing registration forms and test information are available at <http://www.cbest.nesinc.com>.
 - d. The student must present the Certificate of Clearance from the California Commission on Teacher Credentialing prior to beginning the sequence of study. Consult the Credentials Processing Center, EBA-250.
2. Common Core (6 units):
 - ED 690 Methods of Inquiry.....3
 - CSP 600 Cross-Cultural Counseling Communication Skills.....2
 - CSP 600L Cross-Cultural Counseling Prepracticum.....1 (Cr/NC)
3. Foundations (6 units):
 - CSP 601 Theoretical Foundations of Counseling and Marriage and Family Therapy.....3
 - CSP 610C Determinants of Human Behavior: Development.....1-3

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CSP 615	Seminar in Multicultural Dimensions in Counseling.....	3
CSP 620	Foundations of the Professional School Counselor Leader.....	3
4.	Theory, Research, and Techniques (minimum 30 units selected in consultation with adviser):	
CSP 624	Learning, Achievement, and Instruction for School Counselors.....	3
CSP 630	Social Justice and Holistic School Systems for School Counselors.....	3
CSP 645	College Planning and Career Development P-16.....	3
CSP 662B	Counseling Interventions with Children and Adolescents: School Counseling and School Psychology.....	3
CSP 670	Theory and Process of Group Counseling.....	3
CSP 680	Theory and Process of Consultation.....	3
CSP 762	Prevention, Crisis Intervention, and Conflict Resolution in Schools.....	3
CSP 769	The Achievement Gap: Leadership, Advocacy, Systemic Change.....	3
CSP 775	ASCA Model I: Developing and Implementing a School Counseling Program.....	3
CSP 776	ASCA Model II: Evaluating and Improving School Counseling Programs.....	3
5.	Integration and Application of Theory, Research, and Techniques (minimum 8 units):	
CSP 730	Fieldwork in Counseling.....	2-6 (Cr/NC) (CSP 730 must be taken twice)
CSP 740	Practicum.....	1-6 (Cr/NC)
6.	Additional requirements for concentration (minimum three units selected in consultation with adviser):	
CSP 641	Psychometrics in Counseling and School Psychology.....	1
CSP 689	Family Counseling in the Schools.....	1
CSP 742	Policy, Politics, Law, and Ethics for School Counselors.....	3
7.	Electives (four units selected in consultation with an adviser).	
8.	Research (minimum three units selected in consultation with adviser):	
CSP 710A	Professional Seminar.....	3
OR		
CSP 799A	Thesis.....	3 (Cr/NC/RP)

Students must maintain the minimum university requirement of 3.0 GPA. Students must receive a grade of B- or better (Cr for credit/no credit graded courses) in every course to document attainment of the competencies required for the Pupil Personnel Services Credential. Students not meeting this requirement must immediately consult the department chair or the director of the school counseling concentration. In addition, three grades of B- or lower (including NC) are grounds for dismissal from the program regardless of the student's overall GPA.

Adherence to the ethical principles of the American School Counselor Association is mandatory. Students who knowingly or unknowingly violate any part of the ethical code may be dismissed from the program without further qualification regardless of coursework or other academic achievement. A copy of the ethical principles is included in the student handbook distributed at orientation.

In addition to the required courses and experiences, the student must pass all components of the CBEST to be eligible for the credential.

Master of Science Degree in Rehabilitation Counseling

General Information

The rehabilitation counseling program prepares graduates to enter the field of rehabilitation to provide rehabilitation and case management services to consumers with physical, emotional, and/or cognitive disabilities. Expanded curriculum is highlighted in assistive technologies, cognitive disabilities, mental health, career assessment, administration of rehabilitation programs, disability management, diversity program development, and work within public and private sectors. The degree is accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). A limited number of graduate stipends from the Rehabilitation Services Administration are available to (1) students who are committed to entering rehabilitation in publicly supported programs after graduation and (2) students with a financial need. Graduates qualify for CRC certification and with additional coursework, are eligible for California licensure as a professional counselor. A limited number of students may qualify for admission to the Pupil Personnel Services – School Counseling Credential track, under a collaborative agreement with the Department of Counseling and School Psychology. Specializations and certificate programs are available in cognitive disabilities, psychiatric rehabilitation, and rehabilitation technology.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. The student must file an application for admission to San Diego State University with both the Office of Graduate Admissions and the Department of Administration, Rehabilitation and Postsecondary Education.

Students seeking admission to the graduate program which leads to a Master of Science degree in rehabilitation counseling should address their inquiries to the coordinator of the program. Detailed instructions concerning application procedures are available at <http://www.interwork.sdsu.edu/arpe/>. As there are specific requirements for the program, it is not sufficient to file only the general university admission application.

Criteria for admission require that students submit evidence in written form (i.e. personal statement, official transcripts, and recommendation letters) and through interviews demonstrating personal, professional, and academic adequacy for the Master of Science degree in rehabilitation counseling. Only students who show reasonable promise of success in rehabilitation counseling as a career will be admitted to this program. In order to continue in the program, the student must demonstrate ongoing academic, professional, and personal growth.

A student may transfer a maximum of 30 semester units from another CACREP-accredited graduate program in rehabilitation counseling. Evaluation of transfer credits will be made at the time of acceptance to the program. Approval of graduate transfer credit from other programs will be at the discretion of the coordinator and subject to final approval by the Division of Graduate Affairs.

Advancement to Candidacy

To be eligible for advancement to candidacy the student must, in addition to holding classified graduate standing, have completed at least 24 units of the coursework listed on the official program, maintain good standing in the rehabilitation counseling program, and comply with the regulations of the Division of Graduate Affairs as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree in Rehabilitation Counseling (Major Code: 12221) (SIMS Code: 331009)

In addition to meeting the requirements for classified graduate standing, and the basic requirements for the master's degree, as described in Part Four of this bulletin, the student must complete a minimum of 60 graduate units of 500-, 600-, and 700-numbered courses, to include:

Core program (24 units):

ARP 645A-645B	Assessment in Rehabilitation	3-3
ARP 660	Theory and Process of Counseling in Rehabilitation	3
ARP 684	Rehabilitation Foundations	3
ARP 685A-685B	Medical and Psychological Aspects of Disability	3-3
ARP 687	Placement Practices with Individuals with Disabilities	3
ED 690	Methods of Inquiry.....	3

15 units of required courses selected from the following:

ARP 607	Applications of Rehabilitation Technology	3
ARP 610	Educational Leadership.....	3
ARP 615	Seminar in Multicultural Dimensions in Rehabilitation Counseling.....	3
ARP 648	Group Dynamics in Rehabilitation	3
ARP 680	Seminar in Administration, Rehabilitation and Postsecondary Education.....	2-6
ARP 708	Human Development and Disability.....	3
ARP 710A-710B	Seminar in Rehabilitation	3-3
ARP 720	Human Resource Development in Postsecondary Education.....	3
ARP 740	Advanced Seminar in Administration, Rehabilitation and Postsecondary Education.....	3
ARP 747	Educational Leadership in a Diverse Society.....	3
ARP 755	Governance and Policy Development in Postsecondary and Disability Systems.....	3

A minimum of six units selected from the following:

ARP 743	Fieldwork in Rehabilitation	3-6 (Cr/NC)
ARP 744	Practicum in Rehabilitation	3-12 (Cr/NC)
ARP 745	Internship in Rehabilitation	3-9 (Cr/NC)

6-9 units of electives as determined by consent of the faculty adviser.

Comprehensive Examination

One of three options must be completed for graduation from this program: comprehensive examination, portfolio, or thesis. The decision for this must be made by the student with the consent of the faculty adviser at least one semester prior to graduation. The student must demonstrate satisfactory performance as approved by the rehabilitation counseling program. Reservations for the examination must be made in advance in the Department of Administration, Rehabilitation and Postsecondary Education located in EBA-246. Students selecting the comprehensive examination option take the Certified Rehabilitation Counselor examination, offered by the Commission on Rehabilitation Counselor Certification.

Program Structure

The rehabilitation counseling program offers a 60 semester unit format that leads to the Master of Science degree in rehabilitation counseling. Students are accepted on a full-time and part-time basis.

Concentration in Clinical Rehabilitation and Clinical Mental Health Counseling (Major Code: 12221) (SIMS Code: 331011)

To complete the Master of Science degree in rehabilitation counseling with a concentration in clinical mental health counseling, students must complete 63 units to include:

1. Required rehabilitation counseling courses (24 units):

ARP 615	Seminar in Multicultural Dimensions in Rehabilitation Counseling.....	3
ARP 645A-645B	Assessment in Rehabilitation	3-3
ARP 648	Group Dynamics in Rehabilitation	3
ARP 660	Theory and Process of Counseling in Rehabilitation	3
ARP 684	Rehabilitation Foundations	3
ARP 755	Governance and Policy Development in Postsecondary and Disability Systems.....	3
ED 690	Methods of Inquiry.....	3
2. Advanced training in rehabilitation counseling (15 units):		
ARP 601	Seminar in Best Practices in Psychiatric Rehabilitation	3
ARP 608	Seminar in Principles of Psychiatric Rehabilitation.....	3
ARP 685A-685B	Medical and Psychological Aspects of Disability	3-3
ARP 687	Placement Practices with Individuals with Disabilities.....	3
3. Additional licensed professional clinical counselor requirements (15 units):		
CFD 670	Seminar in Human Development Theories-Intervention and Prevention	3
CSP 618	Mental Health Recovery and the DSM: A Social Justice Perspective	3
CSP 650	Trauma and Crisis Counseling in Multicultural Community Context.....	1-3 (3 units required)
CSP 687	Family and Systemic Treatment of Substance Abuse.....	1-3 (3 units required)
CSP 694	Psychopharmacology for Marriage and Family Therapists and Counseling	2-3 (3 units required)
4. Fieldwork requirements (9 units):		
ARP 744	Practicum in Rehabilitation	3-12 (6 units required)
ARP 745	Internship in Rehabilitation.....	3-9 (3 units required)

Section III. Teaching and Service Credentials

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the College of Education (refer to the appropriate degree section for the address to submit additional information).

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

Education

- GRE scores (<http://www.ets.org> SDSU institution code 4682)
 - GRE is not required for teaching credential programs;
- English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Program Admissions

All programs in the College of Education require the submission of a second application, the supplementary program application. All letters of recommendation, personal statements, and other required documents are submitted through the online application. Refer to the specific program requirements to be submitted and department contact information for each program.

Multiple Subject Bilingual 2042 Credential (Elementary K-6 Education) (Credential Code: 00200)

- Complete department application at <http://go.sdsu.edu/education/admissions/preliminary-bilingual-multiple-and-single-subject-credentials.aspx>;
- California Basic Educational Skills Test (CBEST) scores;
- Demonstration of Language and Cultural Proficiency:
 - Arabic: Copy of CSET LOTE subtests II and V for language of emphasis;
 - Filipino: Copy of CSET LOTE subtests II and V (test codes 191 and 255 respectively) for language of emphasis;
 - Japanese: Copy of CSET LOTE subtest III and V (test codes 159 and 260 respectively) for language of emphasis;
 - Mandarin: Copy of CSET LOTE subtests III and V for language of emphasis;
 - Spanish: Completion of DLE 415 or copies of CSET LOTE subtests III and V for Spanish language emphasis;
 - World Languages: Copy of CSET LOTE subtest IV (test code 250) for language of emphasis;
- TB test results;
- Two letters of recommendation, one of which must be from an elementary teacher if multiple subject or from a secondary teacher if single subject;
- Verification of early field experience (30 hours for multiple subject) or completion of DLE 415;
- Certificate of clearance (live scan);
- CPR that includes infant/child/adult;
- Autobiography/Goals and Philosophy. Candidates must complete a 1-1/2 page essay of their goals and philosophy in education and a 1-1/2 page autobiography **in language of emphasis and English**. Submit original and four sets of each essay with your DLE application;
- California Subject Examination for Teachers (CSET) scores.

Single Subject Bilingual 2042 Credential (Secondary Education Grades 6-12: Spanish Emphasis) (Credential Code: 00100)

- Department application (available at the department website);
- California Subject Examination for Teachers (CSET) scores or adviser recommendation;
- California Basic Educational Skills Test (CBEST) scores;
- Demonstration of Language and Cultural Proficiency:
 - Spanish: Completion of DLE 415 or copies of CSET LOTE subtests III and V for Spanish language emphasis;
- TB verification;
- Three letters of recommendation, one of which must be from an elementary teacher if multiple subject or from a secondary teacher if single subject;
- Verification of early field experience (45 hours for single subject) or completion of DLE 415;
- Certificate of clearance (live scan);
- CPR that includes infant/child/adult;

- Autobiography/Goals and Philosophy. Candidates must complete a 1-1/2 page essay of their goals and philosophy in education and a 1-1/2 page autobiography in language of emphasis and English. Submit original and four sets of each essay with your DLE application.

Reading and Literacy Leadership Specialist Credential (Credential Code: 00410)

Submit the following in the supplementary program application:

- Personal statement;
- Three letters of reference.

For more information contact:

School of Teacher Education
Attention: Dr. Marva Cappello (cappello@sdsu.edu)
<http://go.sdsu.edu/education/ste/reading.aspx>
619-594-6131

Education Specialist Credentials in Special Education

For more information contact:

Department of Special Education
<http://go.sdsu.edu/education/ste/reading.aspx>
619-594-6131

General Information

The College of Education offers programs which lead to teaching, specialist, and services credentials. The School of Teacher Education (STE) offers programs for the SB 2042 preliminary credential. The Department of Dual Language and English Learner Education (DLE) offers programs for the SB 2042 preliminary bilingual credential. Students who desire to seek a credential should consult with departmental advisers in order to determine their status and needed requirements. Information on these credentials is available in the College of Education, Office of Student Services, EBA-259.

The College of Education has obtained approval for programs leading to the following credentials:

Approved Credential Program	School Service Authorized
1. Multiple Subject* (SB 2042)	Teach in self-contained classrooms and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD), kindergarten through twelfth grade.
2. Multiple Subject (2042) Bilingual: Spanish**, Arabic, Filipino, Japanese, or Mandarin	Teach in self-contained classrooms in primary language and English, English Language Development (ELD), and Specially Designed Academic Instruction in English (SDAIE).
3. Single Subject* (SB 2042)	Teach single subject area in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).
4. Single Subject Bilingual (2042) emphasis: Spanish**	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).
5. Special Education: Education Specialist Credential Early Childhood Special Education Mild/Moderate Disabilities Moderate/Severe Disabilities	Teach special education students in the programs designated by each education specialist credential.

* See School of Teacher Education, EBA-259, 619-594-6320 for more information.

** See Department of Dual Language and English Learner Education, EBA-259, 619-594-6320 for more information.

Education Specialist Credentials*

Specialist Credentials

Reading and Literacy Leadership

Service Credentials

- Administrative Services
- Clinical – Rehabilitative Services (School of Speech, Language and Hearing Sciences)
- Health – School Nurse Services (School of Nursing)

- Pupil Personnel Services:
 - » Child Welfare and Attendance (School Social Work)
 - » School Counseling (see M.S. in Counseling, concentration in School Counseling)
 - » School Psychology (see Ed.S. in School Psychology)
 - » School Social Work (School of Social Work)

Specialist Certificates

- Bilingual Cross-Cultural Language and Academic Development (BCLAD)
- Cross-Cultural Language and Academic Development (CLAD)
- Developing Gifted Potential
- Early Childhood Special Education
- Resource Specialist of Competence
- Supported Employment and Transition Specialist
- Teaching the Emotionally Disturbed/Behaviorally Disoriented

* See Department of Special Education, NE-70, 619-594-6665 for more information.

Information Applicable to Multiple Subject and Single Subject (SB 2042/Bilingual) Credentials

Departmental admission to Multiple Subject or Single Subject (SB 2042) 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.

Students Who Seek to Complete a Credential

Teachers with Preliminary RYAN Multiple Subject or Single Subject credentials who are working toward Professional Clear certification may have individual programs designed to meet their needs and interest areas. Arrangements for evaluation of college credit and program design can be made through the College of Education, Office of Student Services, EBA-259, 619-594-6320.

A student transferring into San Diego State University to complete requirements for either the Preliminary 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. The student will also be held responsible for successful completion of a California Teacher Credentialing approved Teacher Performance Assessment (edTPA).

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 any Multiple Subject or Single Subject credential program.

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 College of Education, Office of Student Services, EBA-259.

Multiple Subject (SB 2042) 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 (SB 2042) 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 better.
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 10 years prior to recommendation.
5. Successful completion of a California Teacher Credentialing approved Teacher Performance Assessment (edTPA).
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 General Catalog section on "Graduation Requirements," IV. American Institutions Requirement.
8. Knowledge of health education, including substance abuse and nutrition: Public Health 101 or Teacher Education 280 or approved equivalent.
9. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 450 or 500.
10. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy).
11. Verify current training and certification in cardiopulmonary resuscitation (CPR).

NOTE: According to SB 2042 legislation, teachers will be able to earn Professional Clear Credentials upon successful completion of a clear credential program or an induction program approved by the California Commission on Teacher Credentialing. For information about the SDSU clear and induction programs; visit the website at http://go.sdsu.edu/education/ste/apply_clear.aspx.

Undergraduate students in the Multiple Subject credential program may register for concurrent post-baccalaureate credit in their final semester prior to obtaining a baccalaureate degree as explained in the section of this catalog on "General Regulations."

Admission Standards and Qualifications for the Multiple Subject Credential Program

Candidates for the Multiple Subject Credential Program must satisfy the standards and qualifications listed below and submit an online departmental application to the School of Teacher Education. Contact the School of Teacher Education for application dates or find them at http://go.sdsu.edu/education/ste/apply_credentials_new.aspx.

Education

Applications must verify 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 at <http://www.cbest.nesinc.com>. Candidates are urged to take this examination as early as possible. Candidates are required to submit a copy of the individual score reports; uploaded to the online application.
2. **Subject Matter Competency.** Students must submit passing scores on the California Subject Examination for Teachers-Multiple Subjects (CSET-MS) in order to verify subject matter competency in diversified subjects commonly taught in self-contained classrooms. For the traditional, post-baccalaureate program (see below), test scores must be submitted prior to admission to the program. Test scores submitted for verification of subject matter competency are valid for 10 years from the date the first subtest was passed and must be valid at the time of recommendation for the credential. Registration information and registration materials are available at <http://www.cset.nesinc.com>.
3. **Prerequisite Courses.** These courses or approved equivalents must be completed with grades of C, Cr, or better no more than seven years prior to admission to the Multiple Subject Credential Program. The courses may be in progress at the time of program application. Proof of registration is required to be considered for admission.
 - a. Education 451. Introduction to Multicultural Education (3)
 - b. Teacher Education 280. Health Education for Teachers (1)
 - c. Mathematics 210. Number Systems in Elementary Mathematics (3) In lieu of Mathematics 210, candidates may substitute any calculus course taken at the college or university with a grade of credit, "C," or better.
 - d. Special Education 450. Classroom Adaptations for Special Populations (2)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 post-baccalaureate coursework or a minimum 2.67 overall or 2.75 in the last 60 semester (or 90 quarter) units attempted. Candidates are required to submit official transcripts from all colleges and universities attended (with exception of SDSU) to the SDSU Graduate Admissions office for GPA calculations. Official SDSU transcripts are not required as they can be accessed via the SDSU WebPortal at <http://www.sdsu.edu/portal>.
5. **Letters of Recommendation.** Candidates must submit two letters of recommendation from individuals who know the candidate in different capacities (i.e. employer/supervisor, university professor, classroom teacher) 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. Letters from family or friends will not be considered. These letters will be collected through our online application system. Students will need the name and e-mail address for those who will be providing a recommendation for them.
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 HMOs, 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 or as quick as two weeks depending on one's background. Candidates must be fingerprinted through LiveScan and then submit the application directly to the California Commission on Teacher Credentialing (CCTC). The clearance must be granted on the CCTC website prior to admission to the credential program. Possessors of K-12 California credentials or Emergency Teaching Permits may satisfy this requirement with these valid credentials and will need to be kept current throughout the credential program.
8. **Early Field Experience.** Candidate must successfully complete an approved course with fieldwork experience OR a minimum of 45 hours of independent observation and participation in a "regular" classroom in public elementary schools. This is documented through the early field experience verification page available for downloading from the School of Teacher Education website at <http://go.sdsu.edu/education/admissions/credential-efe.aspx>.
9. **Personal Narrative.** See department website for current prompts at <http://go.sdsu.edu/education/admissions/credential-personal-narrative.aspx>.
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.

In addition to the minimum admissions standards identified above, the Multiple Subject Admissions and Retention Committee may also 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. The chancellor's office, Executive Order 1032, establishes standards for admission to teacher credential programs as follows: "The candidate shall have demonstrated personality and character traits that satisfy the standards of the teaching profession. The assessment of the candidates shall be made by the teacher education faculty of the campus, who may also consider information from public school personnel and others. The campus may use tests, observations, and interviews for this assessment."

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, EBA-259, 619-594-6320. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.

Program Description

Students who have already earned the baccalaureate or higher degree must apply to the traditional Multiple Subject Preparation Program. SDSU Liberal Studies majors may apply to the traditional Multiple Subject Preparation Program which is offered in a variety of formats called "blocks" including the full-time blocks over two semesters, and a three semester block.

Full-time student teaching is required of all candidates according to state law. Our programs combine coursework and student teaching to link theory and practice. The curriculum emphasizes the preparation of reflective practitioners to meet the needs of culturally and linguistically diverse children. Most blocks are based at local elementary schools where we have established partnerships with schools and teachers. In these blocks, student teachers take their university coursework on-site at the elementary school and student teach at that school or neighboring schools.

Requirements for the Post-Baccalaureate Multiple Subject Credential Program:

To qualify for admission, candidates must have completed (1) a baccalaureate or higher degree and (2) the Admission Standards and Qualifications for the Multiple Subject Credential Program listed above. Each student completes student teaching in two

different grade levels; one assignment is at the primary level (in grades K-3) and another is at the intermediate level (in grades 4-6). All students enrolled in the traditional Multiple Subject Teacher Preparation Program will take the following courses. The schedule and sequence of the courses vary with individual block offerings.

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	2 (Cr/NC)
TE 961	Advanced Student Teaching Seminar	2 (Cr/NC)
TE 965	Basic Student Teaching in Elementary Schools	8 (Cr/NC)
TE 966	Advanced Student Teaching in Elementary Schools	11 (Cr/NC)
DLE 915A	Teaching and Learning in the Content Area: ELD/SDAIE: Multiple Subjects	3
ED 970	Teaching Event Assessment	3 (Cr/NC)

Total Units: 48

Variations on the Multiple Subject Credential Program Three Semester Block Option

To qualify for admission, candidates must have completed (1) a baccalaureate or higher degree and (2) the Admission Standards and Qualifications for the Multiple Subject Credential Program listed above, with two exceptions:

1. The California Certificate of Clearance may still be pending at the time of admission to the Three Semester Block. This clearance must be granted by the State of California before the start of the second semester of this program.
2. Students must have taken all of the CSET examination subtests for Multiple Subjects, but can be admitted to the Three Semester Block without completely passing this examination. Students must pass at least one subtest and be within 20 points (combined) of passing the other two subtests. The examination must be completely passed prior to starting student teaching in the third semester of the program. Candidates who have passed the CSET completely and who desire the Three Semester Block, will be given priority placement. Students in the Three Semester Block complete a four unit field experience course in their second semester, and a 12 unit student teaching assignment in their third semester. These two assignments will be assigned at differing grade levels, one in K-3 and one in 4-6.

The following is the sequence of courses students will take in the Three Semester Block:

Semester 1

TE 362	Fieldwork in Community Settings	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	3
DLE 915A	Teaching and Learning in the Content Area: ELD/SDAIE: Multiple Subjects	3

Semester 2

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 930	Teaching Reading and Language Arts in the Elementary School	3
TE 960	Basic Student Teaching Seminar	2 (Cr/NC)
TE 965	Basic Student Teaching in Elementary Schools	8 (Cr/NC/RP)

Semester 3

TE 961	Advanced Student Teaching Seminar	2 (Cr/NC)
TE 966	Advanced Student Teaching in Elementary Schools	11 (Cr/NC/RP)
ED 970	Teaching Event Assessment	3 (Cr/NC)

Multiple Subject Bilingual 2042 Credential (Elementary K-6 Education)

(Credential Code: 00200)

The Multiple Subject Bilingual 2042 Credential (Elementary K-6 Education) is available to students interested in teaching in a bilingual Spanish, Arabic, Filipino, Japanese, or Mandarin 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, Arabic, Filipino, Japanese, or Mandarin, as well as English, candidates must meet the respective language of emphasis proficiency requirements as outlined below.

With the passage of Proposition 227, requiring all students in public schools be taught in English unless a school has received a waiver, the Dual Language and English Learner Education Department and the College of Education remains committed to the training of bilingual teachers. The 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.

Candidates who will pursue this credential need to specify "Multiple Subject Instruction-Bilingual" in the application for graduate admission to SDSU (Code: 00200). Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

Standards for Admission

1. CBEST. Students must pass the California Basic Educational Skills Test prior to admission to the bilingual credential program. This examination is required by the California Commission on Teacher Credentialing. Registration and test information is available at <http://www.cbest.nesinc.com>.
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 bilingual multiple subject credential program, a candidate shall have achieved a passing score on the California Subject Examination for Teachers (CSET) that is required for the credential sought. Registration information and materials for the CSET are available at <http://www.cset.nesinc.com>.

Education

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.

DLE 515	Multilingual Education: Theory and Practice for Biliteracy Teachers	3
ED 451	Introduction to Multicultural Education	3
SPED 500	Human Exceptionality	3
TE 280	Health Education for Teachers	1

Non Liberal Studies Majors (must take the above and below prerequisites).

*MATH 210	Number Systems in Elementary Mathematics	3
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*With approval of the mathematics adviser, any of the following mathematics courses may be substituted for Mathematics 210: Mathematics 124, 150, 312.

4. Grade Point Average. Candidates must have a minimum 2.67 overall or 2.75 in the last 60 semester (90 quarter) units attempted. Candidates are required to submit one set of official transcripts from all colleges and universities attended to SDSU Graduate Admissions for GPA calculations. If students are concerned about their GPA, advisers are available in the College of Education, Office of Student Services, EBA-259, 619-594-6320.
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 30 hours of experience with students in typical elementary classroom settings within the last three years. Evidence must be documented. Completion of DLE 415 can be used to meet this requirement.
8. Oral English and Written Statement of Professional Goals and Philosophy. Have an interview with the admissions and retention committee of the DLE Department.
9. California Certificate of Clearance. This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the application must be provided to the DLE Department.
10. Credential Advising Appointment. Advising is available in the College of Education, Office of Student Services, EBA-259, 619-594-6320. Group advising is also available. Check website for availability at <http://go.sdsu.edu/education/oss/>.
11. Language and Culture Proficiency. All candidates must demonstrate minimum Language Proficiency and Cultural Awareness for the language of emphasis to meet their specific Bilingual Authorization. This can be met by passing the CSET LOTE examination or earning a C (2.0) or better in DLE 415.

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 DLE Department Admissions and Retention Committee for individual consideration; petition letters must be submitted concurrently with the application packets.

14. Application. Applicants should complete application procedures the semester prior to beginning the credential program. Deadlines are available at <http://go.sdsu.edu/education/applynow.aspx>.

In addition to the minimum admissions standards identified above, the DLE 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.

Multiple Subject Bilingual 2042 Program

DLE 523	Psychological Foundations for Biliteracy Teachers in K-6 Classrooms	3
DLE 532	Biliteracy Teaching in Language Arts for Elementary Students.....	3
DLE 910	Teaching Mathematics to Bilingual Students.....	3
DLE 911	Teaching Social Studies to Bilingual Students.....	3
DLE 912	Teaching Science to Bilingual Students.....	3
DLE 915A	Teaching and Learning in the Content Area: English Language Development/ SDAIE: Multiple Subjects.....	3
DLE 931	Skills in Teaching Reading to Bilingual Elementary Students	1-3
DLE 954	Classroom Organization for Democratic Teaching in Bilingual Classrooms.....	1-4
DLE 960	Professional Seminar for Bilingual Teacher Candidates.....	1-4 (Cr/NC)
DLE 961	Practicum in Elementary Bilingual Classroom	1-12 (Cr/NC)
DLE 962	Student Teaching for Elementary Bilingual Students II.....	1-12 (Cr/NC)
ED 970	Teaching Event Assessment	3 (Cr/NC)

Preliminary 2042 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 Dual Language and English Learner Education for further information.)
3. Passage of Multiple Subject/CSET.
4. Successful completion of Language Proficiency and Cultural Awareness Requirements for Language of Emphasis.
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. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 500.
9. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy).
10. Knowledge of health education in California, including substance abuse and nutrition: Teacher Education 280 – Health Education for Teachers (1 unit) and verification of CPR competency.
11. Successful completion of a California Teacher Credentialing-approved Teacher Performance Assessment (edTPA).

NOTE: 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.

Bilingual (Spanish) 2042 Multiple Subject and Special Education Credential Program (Credential Code: 00200)

Not accepting new applicants at this time.

The joint Multiple Subject Bilingual Credential (Spanish Emphasis) and Preliminary Special Education Specialist Credential for Mild/Moderate Disabilities is a two-year dual credential program. This program is available to students interested in teaching in bilingual elementary classrooms and special education settings. Upon completion, the bilingual 2042 multiple subjects credential authorizes the holder to teach in any self-contained bilingual or regular classroom in which one teacher is responsible for all of the subjects commonly taught in the elementary schools. The specialist credential for mild/moderate disabilities authorizes the holder to teach students with designated disabilities in a variety of school settings.

Candidates who wish to apply to the two-year combined credential program need to specify “Multiple Subject Bilingual Spanish and Special Education Emphasis” on the application for graduate admission to SDSU. Students can access the electronic application online at <http://www.calstate.edu/apply>.

The admissions committee consists of faculty advisers from the Dual Language and English Learner Education and Special Education departments. Advisers from both programs will review and interview perspective candidates. The following materials should be submitted as a complete package directly to the Dual Language and English Learner Education Department.

1. One set of official transcripts in sealed envelopes from each issuing institution;
2. Complete supplementary program application online at <http://go.sdsu.edu/education/applynow.aspx> (copy of scores for CBEST/Spanish Proficiency Examination/CSET or Portfolio, TB test results, letters of recommendation, early field experience, character and identification clearance, and statement of professional goals and philosophy).

Standards for Admission

1. CBEST. Students must pass the California Basic Educational Skills Test prior to admission to the bilingual MS and SPED credential program. This examination is required by the California Commission on Teacher Credentialing. Booklets containing registration forms and test information are available at <http://www.cbest.nesinc.com>.

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 bilingual credential program. To be admitted to the multiple subject bilingual credential and Special Education programs, a candidate shall have achieved a passing score on the California Subject Examination for Teachers (CSET) that is required for the credential sought. Registration information and materials for the CSET are available at <http://www.cset.nesinc.com>.

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.

DLE 515	Multilingual Education: Theory and Practice for Biliteracy Teachers.....	3
ED 451	Introduction to Multicultural Education	3

OR

SPED 527	Special Education in a Pluralistic Society.....	3
SPED 500	Human Exceptionality	3
SPED 501	Typical and Atypical Learning Processes.....	3

OR

DLE 523	Psychological Foundations for Biliteracy Teachers in K-6 Classrooms.....	3
SPED 502	Field Experiences in General and Special Education	1 (Cr/NC)
SPED 524	Characteristics of Students with Mild/Moderate Disabilities.....	3
TE 280	Health Education for Teachers	1

4. Grade Point Average. Candidates must have a minimum 2.67 overall or 2.75 in the last 60 semester (90 quarter) units attempted. Candidates are required to submit 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 30 hours of experience with students in typical elementary classroom settings within the last five years. Evidence must be documented.
8. Oral English and Written Statement of Professional Goals and Philosophy. A candidate statement (500 word maximum) that addresses background of experiences that have contributed to the desire to be a special education/bilingual teacher, as well as the personal and professional factors the candidate considers to be most important if one is to become an effective and caring bilingual special educator. Candidates will also have an interview with the admissions and retention committee of the DLE and SPED Departments.

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9. California Certificate of Clearance. This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Candidates must submit live scan and personal information directly to the California Commission on Teacher Credentialing, <http://www.ctc.ca.gov>. A copy of the certificate of clearance must be provided to the DLE Department.
10. Credential Advising Appointment. Advising is available in the College of Education, Office of Student Services, EBA-259, 619-594-6320. Ernesto Sanz is the adviser for the dual credential program and may be contacted at: esanz@mail.sdsu.edu, or 619-594-3265.
11. Language and Culture Examination. All candidates must demonstrate minimum language proficiency and cultural awareness for the language of emphasis to meet their specific bilingual authorization. This can be met by passing the CSET LOTE examination or earning a C (2.0) or better in DLE 415.
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 DLE and SPED Department Admissions and Retention Committee for individual consideration; petition letters must be submitted concurrently with the application packets.
14. Application. Applicants should complete application procedures the semester prior to beginning the credential program. Deadlines are available at <http://go.sdsu.edu/education/applynow.aspx>.

In addition to the minimum admissions standards identified above, the DLE and SPED 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: Year One

DLE 523	Psychological Foundations for Bilingual Teachers in K-6 Classrooms	3
DLE 532	Biliteracy Teaching in Language Arts for Elementary Students.....	3
DLE 910	Teaching Mathematics to Bilingual Students.....	3
DLE 911	Teaching Social Studies to Bilingual Students.....	3
DLE 912	Teaching Science to Bilingual Students.....	3
DLE 915A	Teaching and Learning in the Content Area: English Language Development/ SDAIE: Multiple Subjects.....	3
DLE 931	Skills in Teaching Reading to Bilingual Elementary Students	3
DLE 954	Classroom Organization for Democratic Teaching in Bilingual Classrooms.....	1-4
DLE 960	Professional Seminar for Bilingual Teacher Candidates	1-4 (Cr/NC)
DLE 961	Practicum in Elementary Bilingual Classroom.....	8 (Cr/NC)

DLE 962	Student Teaching for Elementary Bilingual Students II.....	8 (Cr/NC)
ED 970	Teaching Event Assessment.....	3 (Cr/NC)

Program: Year Two

SPED 505	Educational Services for Students with Serious Emotional Disturbance	1
SPED 534	Classroom Assessment of Students with Mild/Moderate Disabilities.....	3
SPED 553	Behavioral Strategies and Supports for Students with Disabilities	3
SPED 560	Applications of Technology for Individuals with Disabilities	3
SPED 647	Special Education Adaptations of Basic Skills Instruction	3
SPED 648	Advanced Special Education Adaptations	3
SPED 662	Collaboration, Legislation, and Educational Planning in Special Education	1
SPED 970A	Practicum: Students with Disabilities in General and Special Education: Mild/Moderate Disabilities.....	4
SPED 980A	Advanced Practicum in Special Education: Mild/Moderate Disabilities.....	10 (Cr/NC)

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 Dual Language and English Learner Education for further information.)
3. Passage of Multiple Subject/CSET.
4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination, or CSET LOTE, or Dual Language and English Learner Education 415.
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.
10. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy).
11. Knowledge of health education in California, including substance abuse and nutrition: Teacher Education 280 – Health Education for Teachers (1 unit) and verification of CPR competency.
12. Successful completion of a California Teacher Credentialing approved Teacher Performance Assessment (edTPA).

NOTE: 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 (SB 2042) 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 (SB 2042) 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

English language arts: Comparative Literature, English

Mathematics

Music

Physical Education

Science: Biology, Chemistry, Physical 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 better and coursework in reading methods.
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 or through California Subject Examinations for Teachers (CSET) examinations. Candidates should check with the College of Education, Office of Student Services, EBA-259, 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 the General Catalog on "Graduation Requirements," IV. American Institutions Requirement.)
6. Knowledge of health education, including substance abuse and nutrition: Public Health 101, or Teacher Education 280, and verification of CPR competency.
7. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 450 or 500.
8. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy).
9. Successful completion of a California Commission on Teacher Credentialing (CCTC) approved Teacher Performance Assessment (edTPA).
10. Current certification in adult, child, and infant cardiopulmonary resuscitation (CPR).

NOTE: 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.

Undergraduate students in the Single Subject credential program may register for concurrent post-baccalaureate 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 an online departmental application to the School of Teacher Education. Contact the School of Teacher Education for application dates or find them at http://go.sdsu.edu/education/ste/apply_credentials_new.aspx.

Completed applications 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. Candidates are urged to take this examination as early as possible. Candidates are required to submit a scan 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, or by submitting passing scores on the appropriate California Subject Examinations for Teachers (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 the General Catalog. Approved waiver programs from other California universities are acceptable. 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 <http://www.cset.nesinc.com>.
3. Prerequisite Courses. These courses or approved equivalents must be completed with grades of C, Cr, or better no more than seven years prior to admission to the Single 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 (3)
This course provides an introduction to ethnicity, language, and culture in education, particularly the ways in which those factors differentially affect educational outcomes for children. The course assists in preparing teacher applicants to work with students from diverse backgrounds by examining both societal and personal belief systems and the ways that those beliefs are expressed in public school classrooms.
 - b. Teacher Education 280. Health Education for Teachers (1)
This course provides topics designated in the Health Framework for California to include how to infuse health topics into the general curriculum.
 - c. Special Education 450. Classroom Adaptations for Special Populations (2)
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 post-baccalaureate coursework or 2.75 in the last 60 semester (90 quarter) 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.

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5. Letters of Recommendation. Candidates must submit two letters of recommendation. One letter must be from a faculty member in the candidate's major, and one from an individual who knows the candidate well (but is 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. These letters are now submitted electronically through our online application process.
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 HMOs, 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. Clearance must be granted on the CCTC website prior to the start of the student teaching.
8. Early Field Experience. Candidate must successfully complete an approved course with field work experience OR a minimum of 45 hours of independent observation and participation in a "regular" classroom in public secondary schools. This is documented through the early field experience verification page- single subject available for downloading from the School of Teacher Education website at <http://go.sdsu.edu/education/admissions/credential-efe.aspx>.
9. Personal Narrative. See department website for current prompts at <http://go.sdsu.edu/education/admissions/credential-personal-narrative.aspx>.
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 letters must be submitted concurrently with the application packets.

In addition to the minimum admissions standards identified above, the Single Subject Admissions and Retention Committee may also 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. The chancellor's office, Executive Order 1032, establishes standards for admission to teacher credential programs as follows: "The candidate shall have demonstrated personality and character traits that satisfy the standards of the teaching profession. The assessment of the candidates shall be made by the teacher education faculty of the campus, who may also consider information from public school personnel and others. The campus may use tests, observations, and interviews for this assessment."

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, EBA-259, 619-594-6320. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.*

Program Description

The Single Subject Credential Program is offered in a variety of formats called "blocks" to include full-time blocks over two semesters and a three semester block. Full-time student teaching is required of all candidates according to State law. Examinations and/or coursework prerequisite to program admission, if not completed within undergraduate studies, may extend the total time commitment for credential issuance by one or more semesters. The second semester student teaching assignment represents a commitment of three periods a day in a local public school with the possible addition of an administrative assignment at the same site. Students may be required to remain with their placement for the public school semester, which can be three to four weeks longer than the university term.

The three semester block courses are generally offered in the late afternoon and early evening. Student teaching assignments do require a daytime commitment and will be scheduled according to individual need in consultation with the program coordinator.

Our programs combine coursework and student teaching to link theory and practice. The curriculum emphasizes the preparation of reflective practitioners to meet the needs of culturally and linguistically diverse children. Each student typically completes student teaching in two different grade levels; one assignment is at the middle school level (in grades 6-8) and another is at the high school level (in grades 9-12).

All students enrolled in the Single Subject Teacher Preparation Program will take the following courses. The scheduling and sequence of the courses vary with individual block offerings.

Single Subject Required Courses

TE 903	Secondary School Student Teaching Seminar	3-4 (Cr/NC)
TE 914	Teaching and Learning in the Content Area: Major.....	3
TE 922	Behavioral and Psychological Aspects of Teaching	3
TE 933	Teaching of Reading in the Secondary School	3
TE 954	Humanistic and Social Aspects of Teaching	3
TE 963	Secondary School Student Teaching I	6 (Cr/NC/RP)
TE 964	Secondary School Student Teaching II	12 (Cr/NC/RP)
ED 970	Teaching Event Assessment	3 (Cr/NC)
DLE 915B	Teaching and Learning in the Content Area: ELD/SDAIE: Single Subjects.....	3

Total Units: 39-40

Variations on the Single Subject Credential Program

Three Semester Block Option

To qualify for admission, candidates must have completed (1) a baccalaureate or higher degree and (2) the Admission Standards and Qualifications for the Single Subject Credential program listed above, with two exceptions:

1. The California Certificate of Clearance may still be pending at the time of admission to the Three Semester Block. This clearance must be granted by the State of California before the start of the second semester of this program.
2. Students must have taken all of the CSET examination subtests for their subject area, but can be admitted to the Three Semester Block without completely passing this examination. Students must have attempted all required subtests in their subject area and passed the majority of them. Candidates who have passed the CSET completely and who desire the Three Semester Block, will be given priority placement. The examination must be completely passed prior to starting student teaching in the second semester of the program.

The following is the sequence of courses students will take in the Three Semester Block:

Semester 1

TE 362	Fieldwork in Community Settings	3
TE 954	Humanistic and Social Aspects of Teaching: Social Foundation	3
DLE 915B	Teaching and Learning in the Content Area: ELD/SDAIE: Single Subjects.....	3

Semester 2

TE 903	Secondary School Student Teaching Seminar	1 (Cr/NC)
TE 914	Teaching and Learning in the Content Area: Secondary Methods.....	3
TE 922	Behavioral and Psychological Aspects of Teaching: Educational Psychology	3
TE 933	Teaching of Reading in the Secondary School.....	3
TE 963	Secondary School Student Teaching I	4 (Cr/NC/RP)

Semester 3

TE 903	Secondary School Student Teaching Seminar: Methods.....	1-2 (Cr/NC)
TE 903	Secondary School Student Teaching Seminar: Advanced Student Teaching	2 (Cr/NC)
TE 964	Secondary School Student Teaching II	12 (Cr/NC/RP)
ED 970	Teaching Event Assessment	3 (Cr/NC)

CPR Requirement: All candidates for the preliminary credential are required to verify current training in cardiopulmonary resuscitation (CPR). Verification of the CPR training is made through submission of a photocopy of the card issued by the training agency. While many agencies provide CPR training, verification must be made at levels identified by the American Heart Association (AHA) or the American Red Cross (ARC). Candidates pursuing training through agencies other than these will be required to verify the level of training relative to either the AHA or ARC standards either from the data provided directly on their card or on a supplementary letter on letterhead stationary from their training agency (no phone call verifications).

Single Subject Bilingual 2042 Credential (Secondary Education Grades 6 through 12): Spanish Emphasis (Credential Code: 00100)

The Single Subject Bilingual (Spanish) Teaching Credential (Secondary Education) is available for students interested in teaching in a bilingual middle or 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 Credential Bilingual" in the application for graduate admission to SDSU (Code: 00100). Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

Standards for Admission

1. CBEST. Students must pass the California Basic Educational Skills Test (CBEST) prior to admission to the Single Subject Bilingual Emphasis credential program. This examination is required by the California Commission on Teacher Credentialing. Registration and test information is available at <http://www.cbest.nesinc.com>.

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 are available at <http://www.cset.nesinc.com>.
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.

DLE 515	Theories and Practices in Multilingual Education.....	3
ED 451	Introduction to Multicultural Education	3
SPED 450	Classroom Adaptations for Special Populations.....	3
TE 280	Health Education for Teachers	1
4. Grade Point Average. Candidates must have a minimum 2.67 overall or 2.75 in the last 60 semester (90 quarter) units attempted. Candidates are required to submit 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 HMOs, or public health agencies.
7. Early Field Experience. Applicants must provide evidence of a minimum of 30 hours of experience with adolescent students in typical classroom settings within the last five 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 DLE Department.
9. California Certificate of Clearance. This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the application must be provided to the DLE Department.
10. Credential Advising Appointment. Each applicant must meet with a faculty adviser to plan an appropriate program, which includes a minimum of 31 units as defined by the Commission on Teacher Credentialing. Appointments can be made in EBA-259, 619-594-6320.
11. Language and Culture Examination. All candidates must meet Language Proficiency and Cultural Awareness requirements for the language of emphasis to meet their specific bilingual authorization. This can be met by passing the CSET LOTE examination or earning a C (2.0) or better in DLE 415.

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12. Appeals Process. Candidates who do not meet all the admission requirements may petition the DLE Department Admissions and Retention Committee for individual consideration; petition letters 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 DLE application deadline.

In addition to the minimum admissions standards identified above, the DLE 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.

Single Subject Bilingual 2042 Program

Prerequisite Courses

DLE 515	Multilingual Education: Theory and Practice for Biliteracy Teachers.....	3
ED 451	Introduction to Multicultural Education	3
SPED 450	Classroom Adaptations for Special Populations.....	2
TE 280	Health Education for Teachers	1

Credential Courses

DLE 524	Psychological Foundations for Biliteracy Teachers in Grades 7-12	1-4
DLE 653	Language Development in K-12 Multilingual Classrooms	3
DLE 915B	Teaching and Learning in the Content Area: English Language Development/ SDAIE: Single Subjects	3
DLE 933	Skills in Teaching Reading to Bilingual Secondary Students.....	3
DLE 954	Classroom Organization for Democratic Teaching in Bilingual Classrooms	3
DLE 960	Professional Seminar for Bilingual Teacher Candidates.....	1-4 (Cr/NC)
DLE 963	Practicum in Secondary Bilingual Classroom.....	3-4 (Cr/NC)
DLE 964	Student Teaching for Bilingual Secondary Students II	8-12
ED 970	Teaching Event Assessment	3 (Cr/NC)
TE 914	Teaching and Learning in the Content Area: Major.....	3

Preliminary Credential Requirements

1. A bachelor's degree with one of the approved single subject majors listed in the single subject bilingual teaching credential General 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 Dual Language and English Learner Education for further information about the approved programs.)
3. Major Adviser's Recommendation. Passage of subject matter examination(s) or waiver thereof through completion of one of the approved single subject credential majors listed below with a written recommendation from the Ryan major adviser.

Demonstrated subject matter competency through completion of approved waiver program in one of the California single subject areas, is through a combination of coursework and competency examinations, or through CSET examinations. Candidates should check with the College of Education, Office of Student Services, EBA-259, to clarify the appropriate means for satisfaction of the subject matter competency requirement.

4. Successful completion of Language Proficiency and Cultural Awareness requirements for the language of emphasis.
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. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
8. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs, Special Education 500.
9. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy).
10. Knowledge of health education in California, including substance abuse and nutrition: Teacher Education 280 – Health Education for Teachers (1 unit) and verification of current CPR competency.
11. Successful completion of a California Teacher Credentialing approved Teacher Performance Assessment (edTPA).

NOTE: 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.

Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent postbaccalaureate credit as explained in the bulletin.

Induction Program for a Clear Credential (Multiple and Single Subject)

The induction program offers contracted teachers the opportunity to obtain a professional clear credential. The two-year program provides mentored support reflecting the candidate's instructional context and needs, develops deeper understandings of pedagogy, advances knowledge and application of current universal access to meet the needs of all students.

Complete online classes available. Field experience in your local school setting.

Prerequisite: A valid SB 2042 Preliminary Multiple or Single Subject Credential or equivalent. A contract to teach at a K-12 school. Clear credential program coursework cannot be taken prior to issuance of the preliminary credential. Optional: Signed CL-855 required to verify employment by contracted teachers before seeking approval to complete field experience in their own classrooms.*

Courses Required for the Credential (16 units)

TE 969	Clinical Practice for Induction.....	4
TE 969	Clinical Practice for Induction.....	4
TE 969	Clinical Practice for Induction.....	4
TE 969	Clinical Practice for Induction.....	4

*For questions regarding the program, contact the clear credential office at clearcredential@mail.sdsu.edu. For details or to apply, http://go.sdsu.edu/education/ste/clear_credential.aspx.

Multiple Subject and Single Subject Professional Clear Teaching Credential

The San Diego State University, College of Education, Clear Credential Program is approved by the Commission on Teacher Credentialing (CTC) and is structured around support, collaboration, university coursework, action research, and formative assessment. The year-long program offers individualized support based on the candidate's instructional context and needs, develops deeper understandings of pedagogy, and advances knowledge and application of current universal access paradigms. Throughout the program, a cycle consisting of growth plan development, Planning for instruction, Instructing, Assessing student learning, Reflection, and Application to subsequent planning and

instruction (PIARA) model of formative assessment occurs, integrating university coursework with practical action research in the candidate's classroom.

This coursework cannot be taken prior to issuance of the preliminary credential.

Prerequisites: A valid SB 2042 Preliminary Multiple or Single Subject Credential or equivalent and verification by the employing school district or private school employer that an induction program is not available to the applicant.

For additional information, contact Carol Prime (prime@mail.sdsu.edu) or clearcredential@mail.sdsu.edu.

Reading and Literacy Leadership Specialist Credential

(Credential Code: 00410)

San Diego State University offers a program leading to a Reading and Literacy Leadership Specialist Credential. This credential authorizes the holder to function as a reading specialist in grades Pre-K through 12.

Requirements for Admission

1. A valid California teaching credential applicable within the range of grades Kindergarten to 12.
2. A minimum of one year of full-time K-12 teaching experience or the equivalent within the range of grades Kindergarten to 12.
3. Submission of GRE scores.
4. Admission and planning interviews with an adviser.

Core Program (25 Units)

ED 690	Methods of Inquiry.....	3
TE 530	Children's/Adolescents' Literature.....	3
TE 631	Seminar in Language Arts.....	3
TE 633	Leadership in Literacy Education.....	3
TE 635	Assessment of Reading and Language Arts.....	3
TE 637	Instructional Strategies for Reading and Language Arts.....	4
TE 639	Literacy and Language	3
OR		
TE 640	Planning for Teaching and Assessment in Writing.....	3
TE 677	Research-Based Pedagogy for Diverse Learners.....	3

Additional Requirements

1. To be eligible to apply for the credential, the candidate must have a minimum of three years of full-time K-12 teaching experience within the range of grades Kindergarten to 12.
2. Satisfactory completion of a comprehensive examination covering the program coursework.

Education Specialist Credentials in Special Education

San Diego State University offers programs leading to the following Education Specialist Credentials in Special Education authorized by the California Commission on Teacher Credentialing: Mild/Moderate Disabilities, Moderate/Severe Disabilities, and Early Childhood Special Education. These credentials authorize the holders to teach students with designated disabilities in a variety of settings. These credentials require completion of Preliminary Education Specialist requirements followed by completion of the Clear Professional Induction Specialist requirements within five years of employment in an authorized setting. The department also offers the Early Childhood Special Education Certificate which authorizes holders of other specialist credentials to work with children and their families from birth through pre-kindergarten. There are some common requirements between the Education Specialist credential programs and the Master of Arts degree. Once admitted, students must maintain a GPA of 3.0 and must successfully complete all practicum experiences. Only grades of C or better will count toward a degree, a credential, or a certificate.

Standards for Admission to Preliminary Credentials

Candidates for any of the Education Specialist Credentials in Special Education must satisfy the standards and qualifications listed below and submit complete application packets online within designated application periods. Information about applications for Program Admission is available from the Office of Advising and Recruitment, EBA-259.

Completed departmental 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 any of the programs that lead to an Education Specialist Credential in Special Education. Information may be obtained from <http://www.ctcexams.nesinc.com>. Candidates are urged to take this examination as early as possible. Candidates are required to submit a scanned copy of the individual score reports.
2. **Subject Matter Competence.** Students must verify completion of subject matter competence with a passing score on the CSET: Multiple Subjects. Credential holders should see an adviser for clarification.

For students applying for the Specialist Credential in Early Childhood Special Education, an appropriate major such as Child Development, Developmental Psychology, or Liberal Studies is required.

3. **Health Education.** Knowledge of health education in California, including substance and nutrition: Teacher Education 280 – Health Education for Teachers (1 unit) and verification of current CPR competency.
4. **Computer Knowledge.** Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy). Students who complete their preliminary credential at SDSU will meet this requirement with Special Education 560.
5. **United States Constitution.** 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 General Catalog section on "Graduation Requirements," IV. American Institutions Requirement.
6. **Prerequisite Courses.**
 - a. Special Education 500, 501, 502, and courses applicable to the credential area selected from Special Education 524, 525, and 528.
 - b. Special Education 527 (or CLAD/BCLAD credential) and Dual Language and English Learner Education 915C.
7. **Grade Point Average.** Candidates must have a minimum 2.67 overall or 2.75 in the last 60 semester (90 quarter) units attempted. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculation.
8. **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.
9. **California Certificate of Clearance.** This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Candidates must submit live scan and personal information directly to the California Commission on Teacher Credentialing (CCTC), <http://www.ctc.ca.gov>. This clearance must show as granted on the CCTC website.
10. **Program Application.** Applicants must complete the supplementary program application available online at <http://go.sdsu.edu/education/applynow.aspx>.

Education

11. Letters of Recommendation. Two letters of recommendation from people who know you well (not relatives), especially those who have knowledge of your work with children in school or related settings. These letters must attest to your aptitude and suitability for the teaching profession.
12. Candidate Statement. A candidate statement (500 word maximum) that addresses your background of experiences that have contributed to your desire to be a special education teacher as well as the personal and professional factors that you consider to be most important if one is to become an effective and caring special educator.

Preliminary Education Specialist Credential

1. Core courses: Special Education 505^{*}, 553[#], 560, 662[#], 970, 980. Candidates are required to pass the Reading Instruction (RICA) Test.* An international or global/cultural experience is required, as defined by the Department of Special Education, prior to graduation for all preliminary credential candidates. Students must obtain approval of graduate adviser.
2. Specialization courses:
 - a. Mild/Moderate Disabilities: Teacher Education 930 (3 units); Special Education 530[^], 534, 647[#], 648, 657, 970A, 980A; and 970A (for part-time students).
 - b. Moderate/Severe Disabilities: Teacher Education 930 (3 units); Special Education 526, 530, 635, 645, 647, 657, 980B; and 970B (for part-time students).
 - c. Early Childhood Special Education: Special Education 526, 530, 635, 643A, 643B, 980D (Infant/Toddler), 980D (Preschool); and 970B (for part-time students).

* Not required for Early Childhood Special Education.

Those seeking severe emotional disabilities (SED) must take these courses.

[^] Those seeking autism authorization must take these courses.

Clear Professional Induction Specialist Credential Requirements for Admission

Candidates for any of the Clear Professional Induction Specialist Credentials in Special Education must meet the following requirements:

1. University Standards. Students must satisfy university standards and qualifications for admission to postbaccalaureate standing.
2. Partnership with Employers. Students must have a support provider who contributes to elective strand decisions and provides non-university experiences related to Clear Induction Credential.
3. Preliminary Education Specialist Credential. Students must hold or be eligible for a Preliminary Education Specialist Credential or hold a valid out-of-state credential in a special education category comparable to a California Commission-approved Preliminary Education Specialist program authorizing special education service. Preliminary Education Specialist or out-of-state credentials must be in the area of study for which students are seeking a Clear Professional Induction Specialist credential.

Program

1. Core courses: Special Education 651 (3 units) and 653 (3 units).
2. Specialization elective strand: In consultation with university and school district advisers, students will take six units of 500-level or higher electives in one area or preliminary credential.
3. **Knowledge of health education in California, including substance abuse and nutrition:** Teacher Education 280 and verification of CPR competency or preliminary credential.
4. **Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy).** Students who complete their preliminary credential at SDSU will meet this requirement with Special Education 560 or preliminary credential.

Reading Recovery Teacher Leader

The Reading Recovery Teacher Leader training program is to prepare qualified individuals to implement reading recovery in their own districts or regions. Teacher leader candidates are selected by their districts to participate in the year-long coursework that prepares them to provide reading recovery training to teachers in their districts, based on their potential as leaders and their educational backgrounds. Each teacher leader candidate must hold a master's degree which qualifies them to teach reading recovery courses in their districts for university credit. A faculty member in the College of Education is responsible for providing coursework and supervision of teacher leader candidates.

Courses required in the program include two semesters each of clinical work, theoretical foundations, and leadership courses. Teacher leaders learn how to assess young children's literacy progress and to use reading recovery teaching procedures to help the at-risk children learn to read and write. Teacher leaders examine the theoretical foundations of early literacy acquisition, reading recovery and early intervention, including theories specifically relevant to working with diverse children with reading difficulties. They study various aspects of the teacher leader role in the classroom and in established sites through apprenticeships with experienced teacher leaders in the field; explore issues of program implementation and systemic changes stemming from the implementation of reading recovery in districts and; consider implications of all of their knowledge and expertise as it directly relates to the effective training of reading recovery teachers.

Partnerships between San Diego State University and the districts that teacher leaders represent are established through the Reading Recovery Teacher Leader training program. Subsequent to the training year, the program provides on-going support and professional development to teacher leaders they have trained.

The Reading Recovery Teacher Leader training program at San Diego State University mirrors training at the other 25 university training centers in the United States. Reading recovery was first introduced at Ohio State University 15 years ago. Other universities that participate in the program include Purdue University, New York University, University of Connecticut, and Georgia State University. University trainers have a close network through which they meet on a regular basis to shape and update coursework based on current research.

Section IV. Added Authorizations

Bilingual Added Authorization with an Emphasis in Biliteracy for K-12

This added authorization is open to all teachers who hold a preliminary or clear California credential for multiple or single subject teaching and are interested in adding the bilingual authorization for Spanish.

For those interested in adding other languages to include Arabic, Japanese, Mandarin, or Tagalog, contact the department for details on pathway for these languages. Six to nine units of coursework in this added authorization may be applied (with prior approval) toward a Master of Arts degree program in education. Courses must be completed with a grade of B (3.0) or better to receive credit for the authorization.

Additional requirements for entrance to the multiple subject or single subject bilingual authorization:

1. Completion of a bachelor's degree from an accredited institution and a California 2042 Multiple or Single Subject Teaching Credential or equivalent.
2. Proficiency in a language other than English, demonstrating language competency in Spanish equivalent to Dual Language and English Learner Education 415 or by passing the California Commission on Teacher Credentialing California Subject Examinations for Teachers: Language Other than English (LOTE) for Spanish proficiency.

Required courses (13 units):

DLE 415	Biliteracy Foundations for Teaching and Learning in Diverse Communities	4
DLE 515	Multilingual Education: Theory and Practice for Biliteracy Teachers	3
DLE 532	Biliteracy Teaching in Language Arts for Elementary Students	3
OR		
DLE 651	Curriculum, Teaching, and Assessment: ELD and SDAIE	3
DLE 653	Language Development in K-12 Multilingual Classrooms	3

Reading and Literacy Added Authorization

This added authorization, formerly entitled Reading Certificate, is authorized by the California Commission on Teacher Credentialing and designed to improve PreK through 12 classroom teacher and community college instructor expertise for literacy instruction from emergent through adolescence and adult levels. The 13-unit program addresses direct instruction in specific skills and strategies; formal and informal literacy assessment; knowledge about reading and writing across content areas; role of writing in learning; student motivation and engagement through reading, writing, and discussion. Courses for the reading and literacy added authorization completed with a grade of B or better are also acceptable in partial fulfillment for the Master of Arts degree program in reading education and reading and literacy leadership specialist credential programs, upon the candidate's acceptance into these programs. Students admitted to the Master of Arts in Teaching degree program can select to complete the reading and literacy leadership specialist credential as their area of concentration.

Required courses (13 units):

TE 530	Children's/Adolescents' Literature	3
TE 635	Assessment of Reading and Language Arts	3
TE 637	Instructional Strategies for Reading and Language Arts	4
TE 639	Literacy and Language	3
OR		
TE 677	Research-Based Pedagogy for Diverse Learners	3

Additional requirements:

To be eligible to apply for the Reading and Literacy Added Authorization from the CCTC after completion of coursework, the candidate must also satisfy the following requirements:

1. A valid California teaching credential within the range of grades Kindergarten through 12.
2. A minimum of three years of full-time K-12 teaching experience within the range of grades Kindergarten through 12.

Section V. Certificate Programs**Behavior Analysis Certificate****(SIMS Code: 331998)**

The behavior analysis certificate provides the foundational knowledge for educators, psychologists, and other interventionists to provide intervention practices based on principles of behavior analysis. The courses are approved by the Behavior Analysis Certification Board as the content sequence required prior to taking the examination.

Prerequisites for admission include a bachelor's degree from an accredited institution in child and family development, education, liberal studies, psychology, social sciences, or other helping profession with a 2.85 grade point average in the last 60 units. Students must complete 15 units and maintain a 3.0 minimum grade point average in all certificate coursework with no less than a C in any course. Courses taken in the certificate program with a grade of B or better may be applied to a master's degree with the consent of the graduate adviser.

Required courses (six units):

SPED 553	Behavioral Strategies and Supports for Students with Disabilities	3
OR		
CSP 623	Ecobehavioral Assessment-Intervention	3

AND

SPED 676	Advanced Applied Behavior Analysis	3
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Elective courses (nine units from the following):

SPED 500	Human Exceptionality	3
SPED 530	Issues in Autism	3
SPED 605	Advanced Behavioral and Health Supports	1
SPED 681B	Advanced Studies in Special Education: Moderate/Severe Disabilities and Early Childhood	3
SPED 685	Single Case Research Design	3
CSP 710B	Professional Seminar: Ethics	3

Bilingual (Spanish) Special Education Certificate**(SIMS Code: 330101)**

No new students are being admitted to this program. Contact the Department of Special Education.

This certificate program provides specialized preparation for teachers of learning handicapped children whose primary language is Spanish.

Prerequisites for admission include the following:

1. Completion of, or admission to, the departmental program for the Specialist Credential in Special Education (Learning Handicapped).
2. Special Education 527.
3. Spanish language proficiency at the S-3 (FSI 3) level.
4. Knowledge of the target culture and bilingual teaching strategies. Proficiency may be demonstrated by passing the "Test of Culture and Teaching" used by the College of Education bilingual emphasis programs.

Certificate program requirements include the following: Dual Language and English Learner Education 553, three units of special education selected with the approval of the department chair, and demonstration of competence in teaching learning handicapped students whose primary language is Spanish.

A grade point average of 3.0 must be obtained in the four courses. Contact the Department of Special Education for further information.

Cognitive Disabilities Certificate**(SIMS Code: 331981)**

This certificate program is designed for current and aspiring rehabilitation counselors who are, or intend to become providers of vocational and independent living services on behalf of persons with cognitive disabilities, to include those with autistic spectrum disorders, intellectual disability, acquired brain injuries, and learning disabilities. The certificate prepares rehabilitation counselors to work in the State/Federal vocational rehabilitation system, the U.S. Department of Veteran Affairs, California Regional Centers, or other government agencies supporting persons with cognitive disabilities, nonprofit community rehabilitation provider agencies, and student disability service programs of community colleges and universities.

Prerequisites: A bachelor's degree from an accredited institution with demonstrated experience in disability-related work and/or academic coursework. Students do not need to be enrolled in the SDSU Master of Science degree in rehabilitation counseling to enroll in the certificate program.

Education

Required courses (18 units):

ARP 609	Seminar in Rehabilitation: Policy Developments in Cognitive Disabilities	3
ARP 645A	Assessment in Rehabilitation	3
ARP 685A	Medical and Psychological Aspects of Disability	3
ARP 687	Placement Practices with Individuals with Disabilities	3
ARP 744	Practicum in Rehabilitation.....	3 (Cr/NC)
ARP 745	Internship in Rehabilitation.....	3 (Cr/NC)

ARP 609 and 744 are focused on cognitive disabilities and taught in alternating spring semesters so that each course is offered once every two years. The remaining required courses are offered annually. Students will complete 225 hours of internship in ARP 745 by taking one three-unit course (fall or spring semesters). The internship will be completed in a rehabilitation agency supporting persons with cognitive disabilities, with at least half of the student's clinical experience being directed toward individuals with cognitive disabilities.

Students must complete 18 units with a 3.0 (B) grade point average. Students in the certificate program will complete 12 units of formal coursework, three units of practicum, and three units of internship as described unless the program adviser approves alternative courses. Major assignments in all courses will focus on rehabilitation and cognitive disabilities, and the culminating assignment will be a comprehensive portfolio of work completed during the certificate.

Only three units of coursework with a grade of C will count towards the certificate. A maximum of three units of coursework can be repeated.

The program director will meet with each certificate student to design an individualized program of study based on the student's educational background and professional experience. Students may concurrently enroll in the certificate program and Master of Science degree in rehabilitation counseling. For further information call 619-594-6921.

Community College Teaching Certificate

(SIMS Code: 330302)

The purpose of this certificate program is to prepare students to teach in community colleges within the transfer, developmental, vocational, and adult education areas. The program provides students with experiences in curriculum development and evaluation, instructional techniques, methods to meet adult learning needs, and a practical internship in a local community college.

This is an advanced academic certificate at the post-baccalaureate level. Admission requirements are a bachelor's degree from a regionally accredited institution of higher education, with at least a 2.85 GPA in the last 60 units.

Students must complete the following courses with a minimum grade of B in each course and Cr in ARP 760. Courses in the certificate program may be applied to a master's degree if applicable.

ARP 611	Program Development and Evaluation in Postsecondary Education	3
ARP 631	Seminar in Teaching in Postsecondary Education.....	3
ARP 730	Seminar in Adult Learning	3
ARP 760	Internship in Postsecondary Educational Leadership	3 (Cr/NC/RP)

For further information, contact the Department of Administration, Rehabilitation and Postsecondary Education (<http://www.interwork.sdsu.edu/arpe>).

Developing Gifted Potential Certificate

(SIMS Code: 330305)

The purpose of this certificate program is to provide teachers and other education professionals with specialized preparation for supporting talent development and providing effective educational services to gifted and talented individuals in a diverse society. The certificate is designed to provide knowledge and skills to (a) encourage the development and expression of high potential,

particularly among students currently underrepresented in formal programs for the gifted and (b) provide effective instruction to individuals formally identified as gifted and talented. Hence the program is designed for professionals working in regular and special classrooms settings.

Successful applicants must have completed a bachelor's degree from an accredited institution. A minimum grade point average of 3.0 must be maintained in certificate coursework with no less than a grade of C in any course.

Required courses (15 units): Special Education 644, 649, 771, and six units selected with approval of adviser. All courses completed with a grade of B or better are applicable to the Master of Arts degree in Education with a Concentration in Special Education and a Specialization in Gifted. For further information, contact the Department of Special Education.

Dual Language for Academic Literacy Certificate

(SIMS Code: 330307)

This certificate program provides K-12 teachers and other education professionals with specialized coursework in dual language programs; and provides instruction in two languages aimed for credentialed bilingual teachers to develop bilingualism, biliteracy, and biculturalism/multiculturalism.

Applicants must have completed a bachelor's degree from an accredited institution and hold a current bilingual teaching Bilingual 2042 credential, or hold a CLAD, SB 2042 multiple or single subject credential, or administrative credential, and meet the minimum language requirements of the SDSU/COE based language test (e.g. Spanish).

Required courses (12 units): Dual Language and English Learner Education 553, 600B, 604, 650. A minimum grade point average of 3.0 must be maintained in certificate coursework with no less than a grade of C in any course.

Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH) Certificate

(SIMS Code: 330308)

The certificate program in Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH) is an interdisciplinary program focusing on professional preparation and skills enhancement of early childhood educators who work with young children who demonstrate socio-emotional and behavioral problems and their parents.

Fifteen program units are required to earn the certificate in Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH). Twelve units of seminar courses addressing core knowledge foundations for early childhood mental health and three units of supervised practicum/field experience. Courses in the certificate program may be applied to the master's degree in child development if applicable.

Prerequisites for admission:

1. Successful completion of a bachelor's degree in a field related to child development, human development, psychology, school counseling, social services, or social work from an accredited institution, and relevant work experience in the early childhood education field.
2. Successful completion of the application and interview process.
3. Coursework relating to: children with special needs, early years of development, family functioning and parent-child relationships, parenting, and theories in socio-emotional development. If students' undergraduate preparation is deemed insufficient, students will be required to complete specified courses determined by the certificate program's adviser.
4. Recommendation of employer and/or director of certificate program.

Course requirements (15 units). The EC-TEaMH certificate is modeled following the delivery of Infant-Family and Early Mental Health Services Revised Training Guidelines and Personnel Competencies proposed by the California's Infant, Preschool and

Family Mental Health Initiative (Workforce 2010). It includes two main areas: knowledge and experience. The knowledge base is comprised of four foundation classes and a practicum courses that includes experience in early childhood setting and programs accompanied by Reflective Practice Facilitation (total of 120 hours of supervised practicum).

Students must complete the course requirements with a minimum 3.0 (B) grade point average.

Knowledge Area (12 units):

CFD 580	Observation and Assessment of Young Children's Environments and Relationships.....	3
CFD 670B	Seminar in Human Development Theories-Intervention and Prevention Lifespan Approach.....	3
CFD 671A	Seminar in Supporting Early Childhood Mental Health.....	3
SPED 676	Advanced Applied Behavior Analysis.....	3

Experience Area – Field Experience/Practicum (3 units):

CFD 697A	Advanced Field Experiences A	3 (Cr/NC)
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(Three units; minimum of 120 hours of practicum and minimum of 24 hours of group reflective supervision).

For further information, contact the program adviser.

Early Childhood Special Education Certificate

(SIMS Code: 330301)

The Early Childhood Special Education Certificate is authorized by the California Commission on Teacher Credentialing. It is designed for individuals who have completed Preliminary Education Specialist coursework in Mild/Moderate or Moderate/Severe disabilities. It extends authorization from birth through 22. Individuals credentialed in other areas such as Deaf and Hard-of-Hearing and Visual Impairments are authorized to serve birth through 22, but may add the certificate for professional growth reasons if desired.

1. Prerequisite: Completion of preliminary coursework in one of the Education Specialist credentials and background in early childhood development with focus on infants, toddlers, and preschoolers.
2. Certificate coursework: Special Education 526, 528, 635, 643A, 643B, 980D.

Educational Facility Planning (CEFPI/SDSU)

(Offered through the College of Extended Studies)

(SIMS Code: 331933)

The advanced certificate program in Educational Facility Planning (CEFPI/SDSU) provides a comprehensive course of study grounded in the knowledge and skills central to the planning, designing, building, and maintaining of learner-centered school facilities. The certificate includes appropriate benchmarks for evaluation and instructional delivery that can be accessed electronically worldwide. The goal of the program is to provide certificate candidates advance training in comprehensive educational facilities planning, aimed at producing safe and supportive, learner-centered school facilities that maximize learning opportunities for all students, staff, and the community at large.

Admission Requirement: Candidates will be admitted as matriculated students into the certificate program through the College of Extended Studies, Special Sessions.

Required Courses:

EDL 620	Seminar in Educational Facility Community Engagement and Master Planning.....	2
EDL 621	Seminar in Designing Schools to Support Diverse Learning Style Needs.....	2

EDL 624	Seminar in Educational Facility Implementation.....	2
EDL 625	Seminar in Educational Facility Assessment and Maintenance	2

Students must maintain a minimum grade point average of 3.0 in all certificate coursework with no less than a C in any course. Only two units of coursework with a grade of C will count toward the certificate. A maximum of two units of coursework can be repeated. Courses in the certificate program may be applied to a master's degree if applicable. A maximum of eight units may be transferred to a master's degree program with consent of the graduate adviser.

Additional fees are associated with this program. Information can be obtained from the program adviser.

English Language Development for Academic Literacy Certificate

(SIMS Code: 331996)

Available on-site as an advanced certificate concurrent with a master's degree at San Diego State University or online, this certificate program provides K-16 teachers and other education professionals with specialized preparation for developing academic literacy assessment, curriculum, and teaching methods specifically designed to meet the needs of English Language Learners (ELLs). The program provides further development in theory and methods for development, evaluation, and implementation of (a) appropriate language assessment, (b) effective instruction to ELLs specific to developing academic literacy in English across proficiency levels, and (c) culturally responsive curriculum and teaching strategies. The program is designed for professionals working in programs or classrooms with diverse language learners.

Successful applicants must have completed a bachelor's degree from an accredited institution. Preference will be given to those who hold a current teaching or administrative credential. A minimum grade point average of 3.0 must be maintained in certificate coursework with no less than a grade of C in any course.

Required courses (12 units): Dual Language and English Learner Education 553, 600A or 600B, 650, 651. Nine to 12 units completed with a grade of B (3.0) or better may be applicable to the Master of Arts degree in education with concentration in dual language and English learner education. For further information, contact the Department of Dual Language and English Learner Education, 619-594-5155.

Linked Learning Certificate

(Offered through the College of Extended Studies)

(SIMS Code: 332001)

The purpose of this certificate is to provide practicing teachers and other education professionals with in-depth study of the field of linked learning, one of California's primary high school reform strategies for improving students' learning outcomes. Professionals who work in linked learning pathway programs must have all of the skills and abilities needed by educators in traditional schools and classrooms, and more. This certificate program is designed to provide the unique knowledge and skills essential to a linked learning approach, including its signature pedagogy: career-themed, project-based instruction; work-based learning both within and outside of school; and support services to ensure the success of all students.

Successful applicants to this certificate must have completed a bachelor's degree from an accredited institution and hold a current teaching credential or a credential in another relevant educational field, such as school counseling or administration. A minimum grade point average of 3.0 must be maintained in certificate coursework with no less than a grade of C in any course.

This graduate-level certificate is designed for education professionals who are currently working in linked learning pathway programs or who would like to know more about this transformative approach to secondary education.

For further information, contact 619-594-1366.

Education

Required courses (15 units):

TE 680	Foundations of Linked Learning	3
TE 681	Linked Learning Pathway Design and Delivery	3
TE 682	Integrated Curriculum Design, Implementation, and Assessment.....	3
TE 683	Work-based Learning: Core Linked Learning Instructional Strategy	3
TE 684	Rethinking Teacher Roles in Linked Learning Pathways.....	3

Mental Health Recovery and Trauma Informed Care Certificate

(SIMS Code: 331008)

The purpose of this certificate is to educate a national and international body of mental health professionals and para-professionals in contemporary mental practices that focus on mental health recovery and trauma-informed care. The certificate draws upon integrated recovery and strength-based approaches and emphasizes the role of trauma-informed treatment models in understanding the causes of mental ill-health and practices to address human suffering caused by environmental trauma. This certificate is offered in an online format to cater to health-care professionals residing in locations all over the world.

Prerequisites: A bachelor's degree from an accredited institution with demonstrated experience in serving people requiring mental health services.

Required courses (12 units):

CSP 606A	Professional Issues in Mental Health Practice: California Law and Ethics for Marriage and Family Therapy.....	3
CSP 618	Mental Health Recovery and the DSM: A Social Justice Perspective	3
CSP 650	Trauma and Crisis Counseling in Multicultural Community Context.....	3
CSP 762	Prevention, Crisis Intervention, and Conflict Resolution in Schools.....	3

Substituted elective(s) may be taken with consent of the coordinator.

Students must maintain a minimum grade point average of 3.0 in all certificate coursework with no less than a grade of C in any course. Only three units of coursework with a grade of C will count towards the certificate. A maximum of three units of coursework may be repeated. Courses in the certificate program may be applied to a master's degree if applicable.

For further information, contact the program adviser, Dr. Gerald Monk, 619-594-6109.

Psychiatric Rehabilitation Certificate

(SIMS Code: 330320)

The purpose of the certificate is to educate rehabilitation counselors to provide effective vocational rehabilitation interventions that will result in greater workforce participation and integration of individuals who experience psychiatric disabilities. This academic certificate is designed for current and aspiring rehabilitation counselors in a variety of rehabilitation settings including public and private mental health programs, supported and competitive employment programs, postsecondary education (community college, university), out-patient hospital programs, state departments of rehabilitation, private rehabilitation agencies, or other projects funded through private or government resources that serve individuals with psychiatric disabilities.

Prerequisites: A bachelor's degree from an accredited institution with demonstrated experience in disability-related work and/or academic coursework.

Required courses (15 units):

ARP 601	Seminar in Best Practices in Psychiatric Rehabilitation.....	3
ARP 608	Seminar in Principles of Psychiatric Rehabilitation.....	3
ARP 645A	Assessment in Rehabilitation	3

ARP 687	Placement Practices with Individuals with Disabilities	3
ARP 745	Internship in Rehabilitation.....	3 (Cr/NC)

Students must maintain a minimum grade point average of 3.0 in all certificate coursework with no less than a grade of C in any course. Only three units of coursework with a grade of C will count towards the certificate. A maximum of three units of coursework can be repeated. Courses in the certificate program may be applied to a master's degree if applicable.

For further information, contact the program adviser, Dr. Marjorie F. Olney, 619-594-6883.

Rehabilitation Administration Certificate

(SIMS Code: 330201)

This certificate program provides the student with administrative knowledge and skills to develop and supervise rehabilitation programs and services, in collaboration with consumers, in a variety of organizational settings. This academic certificate is designed for individuals who currently function or aspire to function as program coordinators and administrators in state rehabilitation agencies, community rehabilitation programs, disability management programs, postsecondary education organizations, and other programs and/or organizations involved in serving consumers with disabilities.

This is an advanced academic certificate at the postbaccalaureate level. Admission requirements are a bachelor's degree in rehabilitation or a related field and relevant work experience in a rehabilitation organization or program. The certificate is intended to focus on diversity among consumer populations and service delivery systems within the student's area of career interest. Unique focus areas such as disability management, tribal rehabilitation or deafness, and hard-of-hearing programs are available at certain times. A master's degree in rehabilitation counseling, as well as leadership experience in rehabilitation is strongly encouraged. Relevant career or academic training experience may be substituted in lieu of the above admission criteria at the discretion of the program director. A bachelor's degree is required.

This 21-unit certificate includes the following courses:

ARP 710A	Seminar in Rehabilitation	3
ARP 745	Internship in Rehabilitation.....	3-9 (Cr/NC)

With the approval of the program adviser, 12 units selected from:

ARP 610	Educational Leadership.....	3
ARP 680	Seminar in Administration, Rehabilitation and Postsecondary Education.....	2-6
ARP 710B	Seminar in Rehabilitation	3
ARP 720	Human Resource Development in Postsecondary Education.....	3
ARP 740	Advanced Seminar in Administration, Rehabilitation and Postsecondary Education.....	3
ARP 747	Educational Leadership in a Diverse Society.....	3
ARP 755	Governance and Policy Development in Postsecondary and Disability Systems.....	3
ARP 798	Special Study	1-6 (Cr/NC/RP)

Contact the director of the Rehabilitation Program at 619-594-6406 (V/TTY) for further information.

Students must maintain a minimum grade point average of 3.0 in all certificate coursework with no less than a grade of C in any course. Only three units of coursework with a grade of C will count towards a certificate. Maximum of three units of coursework repeatable. Courses in the certificate program may be applied to a master's degree if applicable.

Rehabilitation Counseling Certificate

(SIMS Code: 330203)

The Advanced Certificate in Rehabilitation Counseling is designed for current and aspiring rehabilitation counselors who are, or intend to become, holders of the certified rehabilitation counselor credential, per Category R established by the Commission on Rehabilitation Counselor Certification. The advanced certificate prepares holders to work in the California Department of Rehabilitation and other state vocational rehabilitation agencies, the United States Department of Veteran Affairs, California Regional Centers, or other government agencies supporting persons with disabilities, nonprofit community rehabilitation provider agencies, and student disability service programs in community colleges and universities.

Prerequisites: Applicants must possess a bachelor's degree and master's, specialist, or doctoral degree in one of 13 different majors from an accredited institution with demonstrated experience in disability-related work and/or academic coursework. Qualifying majors include: behavioral health; behavioral science; disability studies; human relations; human services; marriage and family therapy; occupational therapy; psychology; psycho-metrics; rehabilitation; social work; special education; vocational assessment/evaluation.

Students do not need to be in the SDSU Master of Science degree in Rehabilitation Counseling to register in the certificate program.

Required courses (21 units):

ARP 615	Seminar in Multicultural Dimensions in Rehabilitation Counseling.....	3
ARP 645A	Assessment in Rehabilitation.....	3
ARP 660	Theory and Process of Counseling in Rehabilitation.....	3
ARP 684	Rehabilitation Foundations.....	3
ARP 685A		
OR		
ARP 685B	Medical and Psychological Aspects of Disability.....	3
ARP 687	Placement Practices with Individuals with Disabilities.....	3
ARP 740	Advanced Seminar in Administration, Rehabilitation and Postsecondary Education.....	3

Electives: If one or more of the required courses has been completed, substitute elective(s) can be taken with consent of the coordinator.

Students must complete the course requirements with a 3.0 (B) grade point average. Three units of coursework with a grade of "C" is applicable to the certificate program. Maximum three units of coursework can be repeated.

Students may be concurrently registered in the Advanced Certificate in Rehabilitation Counseling and the Master of Science degree in Rehabilitation Counseling. An individualized program of study based on the student's educational background and professional experience will be designed with the coordinator.

For further information, contact the program coordinator at 619-594-6921.

Supported Employment and Transition Specialist Certificate

(SIMS Code: 337501)

This certificate prepares specialists who develop and implement programs in supported employment and adult community living for youth and adults with disabilities. Students must complete 21 units with a 3.0 (B) grade point average. Students are able to develop competencies in instructional interventions, living options, community networking, and career development.

Prerequisites: A bachelor's degree from an accredited institution with a grade point average of at least 2.75 (when A equals 4.0) in the last 60 semester (90 quarter) units attempted. Introductory disability coursework and experience.

Required courses (9 units):

SPED 657	Facilitating Transition Across Environments in Special Education.....	3
OR		
ARP 684	Rehabilitation Foundations.....	3
ARP 687	Placement Practices with Individuals with Disabilities.....	3
SPED 771	Directed Internship: Special Education.....	3 (Cr/NC)
OR		
ARP 743	Fieldwork in Rehabilitation.....	3 (Cr/NC)
OR		
ARP 745	Internship in Rehabilitation.....	3-6 (Cr/NC)
OR		
CSP 730	Fieldwork in Counseling.....	3 (Cr/NC)

To complete the certificate, students must select 12 units of approved coursework in Administration, Rehabilitation and Postsecondary Education; counseling and school psychology; or special education.

Dr. Caren L. Sax, certificate program adviser in the Department of Administration, Rehabilitation and Postsecondary Education, meets with each certificate student to design an individualized program of study based on the student's educational background and professional experience. Students may enroll in certificate program and master's degree program concurrently.

Workforce Education and Lifelong Learning Certificate

(SIMS Code: 335601)

The certificate offers advanced study and field-based research opportunities for educators and human service personnel interested in assuming leadership roles in the development of education and training programs for non-college bound youth and adults. Employment opportunities include positions as training specialists, instructional developers, program administrators, and instructors in community colleges, adult education programs, and job training programs.

Improving the knowledge and skills of families and workers is one of the most important challenges facing American education. Economists note that even if school reform could be rapidly accomplished, it would have minimal influence on productivity, literacy, or quality of life in the work place during the next 20 years because out-of-school youth and adults are not subject to school reform, and they will constitute the vast majority of the American workforce well in this century.

Successful applicants must have completed a bachelor's degree from an accredited institution and demonstrate a record of excellence in working with youth or adults in schools, agencies, or employer-sponsored education and training programs. A minimum grade point average of 3.0 must be maintained in certificate coursework.

Required courses (9 units):

LDT 544	Instructional Design.....	3
ARP 631	Seminar in Teaching in Postsecondary Education.....	3
ARP 730	Seminar in Adult Learning.....	3

Electives: Six units selected with approval of the certificate program director. For further information, please contact the graduate adviser in the Department of Administration, Rehabilitation and Postsecondary Education.

Courses Acceptable for Master's and Doctoral Degree Programs in Education

(ED)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

NOTE: Twelve units of professional education are prerequisite for enrollment in all graduate courses.

ED 690. Methods of Inquiry (3)

Procedures for gathering, analyzing, and synthesizing information; reviewing the literature; designing studies. Section selection to be made with department graduate adviser.

ED 696. Selected Topics in Community Influences on Learning and Curriculum Planning (1-3)

Prerequisite: Teaching experience.

Intensive study in specific areas of education. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ED 791A. Evaluation Techniques (3)

Prerequisites: Education 690 and advancement to candidacy for the master's degree.

Theory and practice of instructional program and product evaluation.

ED 791B. Practicum: Evaluation (1-3)

Prerequisites: Education 791A and advancement to candidacy for the Master of Arts degree in education.

Supervised experience in conducting a program or product evaluation, strategy selection, procedures, reporting methods, culminating in a written project.

ED 795A-795B. Seminar (3-3)

Prerequisites: Education 690 and advancement to candidacy for the Master of Arts degree in education.

An intensive study in selected areas of education culminating in a written project. Limited to students following Plan B for the Master of Arts degree in education.

ED 797. Research (1-3) Cr/NC/RP

Prerequisites: Education 690 and advancement to candidacy for the master's degree.

Research in one of the fields of education. Maximum credit six units applicable to a master's degree.

ED 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy for the master's degree.

Preparation of a project or thesis for the master's degree.

ED 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

ED 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

DOCTORAL COURSES

ED 801. Seminar on Social and Cultural Foundations of Multicultural Education (3-4)

Prerequisites: Admission to the doctoral program or consent of the graduate coordinator. Students are required to have a background in the social sciences or humanities relevant to such educational issues as social behavior and minority cultures.

Social and cultural parameters that have contributed to the shaping of American society and affected developments in education in the last two decades. Emphasis on the impact on multicultural education and human social behavior in pluralistic societies.

ED 804. English Learner Education: Models, Current Research, and Policy Trends (3-4)

Prerequisites: A background in sociolinguistics or social anthropology and admission to the doctoral program or consent of program director.

Analysis of existing models of English learner education and processes for educational leadership for designing, analyzing or researching policy, curriculum or programs, to meet diverse linguistic and cultural needs of students in current socio-political contexts.

ED 806. Ethnically Diverse Learners: Public Policy and Classroom Practice (3-4)

Prerequisites: Education 801 and admission to the doctoral program or consent of the graduate coordinator. Background in psychological foundations of education and educational policy is required.

National, state, and school policy directed at providing the minority learner with equal educational opportunity. Discussion of legislation for desegregation, bilingual education, school implementation cases and classroom practices as these relate to equal educational opportunity.

ED 808. Academic Research and Publishing in Education (3)

Prerequisite: Completion of a minimum of 12 units in a College of Education doctoral program.

Development, writing, and submission of an article to a juried journal in education. Argument development, creation of abstracts, and identification of theoretical frameworks.

ED 810. Seminar in Curriculum Development and Implementation (3)

Prerequisite: Admission to doctoral program.

Curriculum development and implementation to include culturally diverse contexts with emphasis on reflective implementation and critical analysis of commercial and site-based curriculum.

ED 814. Seminar in Curriculum Change Processes (3)

Prerequisite: Education 810.

Curriculum change processes in educational organizations. Process of planning change and elements necessary for implementing and managing curriculum change to include diverse cultural contexts.

ED 815. Re-Thinking Leadership (3)

Prerequisite: Admission to educational leadership doctoral program.

Concepts of individual and group leadership in educational environments. Practices and policies of effective management and leadership; ethical and emerging trends in leadership styles.

ED 820. Advanced Educational Statistics (3-4)

Prerequisites: Education 690 or equivalent graduate level course and consent of graduate coordinator.

Theory and practice of statistical inference for research in education. Probability and sampling theory, data collection and organization, computer applications in educational research, statistical significance testing and prediction, use of statistical computer program libraries.

ED 822. Seminar in Analysis and Issues in Race and Ethnic Relations (3)

Prerequisite: Education 801.

Analysis of race and ethnic relations in education from a theoretical, research, and action based perspective. Conceptual framework of race, ethnicity, and prejudice theory needed for policies and strategies of reform in education to address unequal race relations.

ED 823. Seminar in Action Oriented Policy Research in Multicultural Contexts (3)

Prerequisite: Education 801.

Multidimensional ways to resolve social problems. Development of community based issues, analysis, research, and implementation.

ED 827. Seminar in Communication and Cognition in Education (3)

Prerequisite: Admission to doctoral program.

Roots of communication in a diverse society. Relationship between cognition and communication including mass media, as well as cross-cultural, and personal modes.

ED 836. Research and Writing Support (2-3) Cr/NC

Prerequisite: Admission to educational leadership doctoral program.

Identification and clarification of a researchable problem in PreK-12 and community college leadership; analysis of related literature, investigation of possible methodology; application to Institutional Review Board. Maximum credit nine units.

ED 840. Seminar in Leadership in a Diverse Society (3)

Prerequisite: Admission to educational leadership doctoral program.

Theories and practices for achieving schools informed by and built around participation of diverse communities and cultures. Inter-section of leadership with socio-historical, socio-cultural, and social justice theories.

ED 850. Seminar in Quantitative Methods of Inquiry (3)

Prerequisites: A master's level course in research methods and admission to doctoral program.

Inquiry and empirical research in educational settings within public schools, postsecondary institutions, and public and private sector educational organizations.

ED 851. Seminar in Qualitative Methods of Inquiry (3)

Prerequisites: A master's level course in research methods and admission to doctoral program.

Theory and methods of qualitative research and evaluation. Computer applications in qualitative research. Match methodology to research settings in education; design a research or evaluation proposal; collect and analyze data; and present results of qualitative study.

ED 852. Seminar in Advanced Quantitative Methods of Inquiry (3)

Prerequisite: Education 850.

Quantitative methods to include weighting, missing value analysis, mean-based procedures, prediction modeling, and causal modeling.

ED 853. Seminar in Advanced Qualitative Methods of Inquiry (3)

Prerequisite: Education 851.

Qualitative procedures to include advanced observation, focus groups, visual ethnography, and case study research.

ED 855. Seminar in Leadership for Developing Educational Systems (3)

Prerequisite: Admission to educational leadership doctoral program.

Skills and processes to lead the development of educational systems. Development of educational systems into learning organizations through organizational communications, adult learning, and professional development.

ED 860. Seminar in Leadership and Educational Change (3)

Prerequisite: Admission to educational leadership doctoral program.

Complexities of educational change. Models of organizational change and specific leadership skills and strategies; action plans for educational leadership challenges.

ED 885. Seminar in Educational Program Planning and Evaluation (3)

Prerequisite: Admission to educational leadership doctoral program.

Effective monitoring of and evaluating systems for educational program improvement and policymaking.

ED 895. Seminar (1-8)

Prerequisite: Admission to the doctoral program or consent of the graduate coordinator.

Investigation of a particular topic or issue, emphasis on empirical research in education. See *Class Schedule* for specific content. Maximum credit eight units applicable to an advanced degree.

ED 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent investigation in the general field of the dissertation.

ED 899. Doctoral Dissertation (3-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral program. Enrollment is required during the term in which the dissertation is approved.

CREDENTIAL COURSES**ED 970. Teaching Event Assessment (3) Cr/NC**

Prerequisite: Admission to teacher education or dual language and English learner education multiple or single subject credential program.

Tasks required for performance assessment teaching event: context of learning, planning instruction and assessment, instructing students and supporting learning, assessing student learning, and reflecting on teaching and learning.

ED 997. Special Topics in Education (0.5-6)

(Offered only in the College of Extended Studies)

Prerequisite: Consent of instructor.

Designed to meet the needs of teachers who wish to develop or continue the study of a current topic. May be repeated with new content.

Administration, Rehabilitation and Postsecondary Education

IN THE COLLEGE OF EDUCATION

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Courses Acceptable for Master's and Doctoral Degree Programs in Education (ARP)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

ARP 568. Adult and Vocational Education in Contemporary Society (3)

Prerequisite: Upper division standing.

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. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

ARP 601. Seminar in Best Practices in Psychiatric Rehabilitation (3)

Prerequisite: Bachelor's degree.

Evidence-based practices in psychiatric rehabilitation. Community experiences, training in counseling, and guest lectures by local psychiatric rehabilitation experts.

ARP 607. Applications of Rehabilitation Technology (3)

Prerequisite: Admission to rehabilitation counseling program or consent of instructor.

Provide rehabilitation professionals with knowledge and skills to assess assistive technology needs of individuals with disabilities and match those needs with appropriate adaptations, equipment, and/or resources to expand employment and related quality of life opportunities.

ARP 608. Seminar in Principles of Psychiatric Rehabilitation (3)

Prerequisite: Bachelor's degree.

Recovery model of mental health to include mental illnesses, treatments, assessment, historical aspects, neurology, protection, and advocacy.

ARP 609. Seminar in Rehabilitation: Policy Developments in Cognitive Disabilities (3)

Prerequisite: Admission to graduate program in rehabilitation counseling or Cognitive Disabilities certificate program.

Working with persons with intellectual disabilities, autism spectrum disorders, brain injuries, and learning disabilities. Impact of these factors and how to work effectively as clinicians, administrators, and policy makers.

ARP 610. Educational Leadership (3)

Concepts and techniques of leadership, analysis of the factors and practice of individual and group leadership as applied to educational and related environments.

ARP 611. Program Development and Evaluation in Postsecondary Education (3)

Prerequisite: Consent of instructor.

Process of program development, change, improvement and evaluation for postsecondary education. Covers instructional programs, curriculum development, and student services programming. Includes designing instructional strategies to meet student learning needs.

ARP 615. Seminar in Multicultural Dimensions in Rehabilitation Counseling (3)

Prerequisite: Admission to graduate program in rehabilitation counseling.

Issues, insights, and techniques for improving effectiveness in working with culturally diverse individuals with disabilities and their families. Focuses on insuring culturally appropriate and relevant rehabilitation services including full community integration.

ARP 620. Student Affairs in Higher Education (3)

Historical roots, diversity of institutions and students; philosophical foundations of the field, guiding values, key legal principles and theoretical bases; functional areas within student affairs, their evolution, purpose, professional associations, standards, and current issues.

ARP 621. Theoretical Foundations of Student Affairs (3)

Prerequisite: Consent of instructor.

Major theoretical foundations of student affairs, including student personnel point of view, student development, and student learning imperative.

ARP 622. Communication and Group Process in Student Affairs Leadership (3)

Prerequisite: Consent of instructor.

Four major domains of communication and leadership: interpersonal, intrapersonal, small group, and organizational dynamics. Addresses assessment of techniques and intervention strategies for each domain.

ARP 623. Seminar in Critical Leadership Issues in Student Affairs (3)

Prerequisite: Consent of instructor.

Current topics and issues critical to effective leadership in student affairs, academic mission of postsecondary education and creating a supportive learning environment for students.

ARP 631. Seminar in Teaching in Postsecondary Education (3)

Prerequisite: Consent of instructor.

Teaching process in postsecondary education addressing syllabus construction, lesson planning, using technology in teaching, and infusing multicultural education into courses. Assessing student learning through authentic evaluation techniques.

ARP 645A-645B. Assessment in Rehabilitation (3-3)

Prerequisite: Admission to graduate program in rehabilitation counseling.

Rehabilitation assessment, labor market information, and career planning implications. Current assessment approaches, counseling, and career theories related to individuals with disabilities.

ARP 648. Group Dynamics in Rehabilitation (3)

Prerequisite: Admission to graduate program in rehabilitation counseling.

Theory, dynamics, process and leadership function as applied to group work in rehabilitation. Development and application of group leadership skills/techniques for adjustment, support, skill training, self-directed groups, organizational problem solving and team-building groups in rehabilitation.

ARP 660. Theory and Process of Counseling in Rehabilitation (3)

Counseling theories, approaches to and techniques for counseling, and research concerning counseling effectiveness.

ARP 680. Seminar in Administration, Rehabilitation and Postsecondary Education (2-6)

Prerequisite: Consent of instructor.

Study of administration, rehabilitation, or postsecondary education in a specialized field, such as a postsecondary institution, and subject fields, or designated services. Field experience when appropriate. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ARP 684. Rehabilitation Foundations (3)

Background and legislation related to vocational rehabilitation, consumer services, role and function of rehabilitation counselor as a professional. Orientation to community rehabilitation agencies.

ARP 685A-685B. Medical and Psychological Aspects of Disability (3-3)

Prerequisite: Open to rehabilitation graduate students and practitioners.

Interface of the individual and the environment covering disabilities from the perspective of each disability viewed in terms of functional capacities and rehabilitative services needed.

ARP 687. Placement Practices with Individuals with Disabilities (3)

Prerequisite: Admission to the graduate program in rehabilitation counseling.

Determination of employment and community integration needs of individuals with disabilities. Theories and techniques are presented through case study methods. Strategies focus on continuous surveys and readings focus on employment needs and opportunities for individuals with disabilities.

ARP 696. Advanced Topics in Administration, Rehabilitation and Postsecondary Education (1-3)

Prerequisites: Twelve units in Administration, Rehabilitation and Postsecondary Education.

Intensive study in specific areas of Administration, Rehabilitation and Postsecondary Education. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ARP 710A-710B. Seminar in Rehabilitation (3-3)

Prerequisite: Completion of at least 24 units leading to Master of Science in rehabilitation counseling or enrollment in Rehabilitation Administration Certificate.

Selected topics with emphasis in research in rehabilitation counseling and/or administration. See *Class Schedule* for specific content.

ARP 708. Human Development and Disability (3)

Prerequisite: Consent of instructor.

Developmental theories with implications of living with a disability. Ecological approach to human growth and development across the lifespan. Psychological, social, and spiritual aspects of individual and family response to disability and chronic illness throughout the lifespan.

ARP 720. Human Resource Development in Postsecondary Education (3)

Prerequisite: Consent of instructor.

Human resource development including selection and evaluation of staff, contract management, and staff development. Personnel managerial styles, staff leadership, and motivation techniques as to morale and productivity. Analysis of educational personnel systems and employee programs.

ARP 730. Seminar in Adult Learning (3)

Patterns and implications of life-long learning. Emphasizes adult learning principles and styles, effects of adult development changes on learning, and teaching techniques in adult education programs.

ARP 740. Advanced Seminar in Administration, Rehabilitation and Postsecondary Education (3)

Prerequisite: Consent of instructor.

Study of a selected area in administration, rehabilitation or postsecondary education, such as educational law, finance, supervision, personnel procedures, etc. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit nine units applicable to a master's degree.

ARP 743. Fieldwork in Rehabilitation (3-6) Cr/NC

Prerequisite: Admission to graduate program in rehabilitation counseling.

Orientation to the rehabilitation process including organizational goals, operating strategies, responsibilities and ethics, employee role expectations in partnership with consumers and service providers. Maximum credit six units applicable to a Master of Science degree in rehabilitation counseling.

ARP 744. Practicum in Rehabilitation (3-12) Cr/NC

Prerequisite: Admission to graduate program in rehabilitation counseling.

Clinical supervision within rehabilitation systems as it relates to outreach and referral, career development, counseling, and case-load management. Maximum credit 12 units applicable to a Master of Science degree in rehabilitation counseling.

ARP 745. Internship in Rehabilitation (3-9) Cr/NC

Prerequisite: Completion of at least 24 units leading to Master of Science in rehabilitation counseling.

Supervised internship in rehabilitation setting which involves application of rehabilitation counseling experiences. Maximum credit of nine units applicable to a Master of Science degree in rehabilitation counseling or enrollment in the Rehabilitation Administration Certificate.

ARP 747. Educational Leadership in a Diverse Society (3)

Prerequisite: Consent of instructor.

Current theory and practice in meeting needs of diverse learners. Leadership and administration of educational organizations as political, complex systems requiring consensus-building dynamics in a multicultural society.

ARP 755. Governance and Policy Development in Postsecondary and Disability Systems (3)

Prerequisite: Consent of instructor.

Development and examination of relevant policy and impact of politics in governance and administration in postsecondary and disability-related systems; control functions of federal, state, and local agencies; influence of lay citizens and special interest groups; roles of judiciary, employee organizations and students.

ARP 760. Internship in Postsecondary Educational Leadership (1-6) Cr/NC/RP

Prerequisite: Consent of instructor.

Internship for prospective educational leaders. Released time may be required. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ARP 798. Special Study (1-6) Cr/NC/RP

Prerequisites: Consent of instructor; to be arranged with department chair and instructor. May involve fieldwork.

Individual study. Maximum credit six units applicable to a master's degree.

DOCTORAL COURSES

ARP 801. Seminar in Community College History and Development (3)

Prerequisite: Admission to educational leadership doctoral program.

Mission, functions, organization, student characteristics, and problems with community college operations. Future trends in community college operations and need for new leadership and research opportunities.

ARP 810. Seminar in Community College Law and Finance (3)

Prerequisite: Administration, Rehabilitation and Postsecondary Education 801.

Legal framework for operating community colleges in California. Community college finance system including state and local contributions to funding.

ARP 812. Seminar in Budget and Resource Management in Community Colleges (3)

Prerequisite: Administration, Rehabilitation and Postsecondary Education 801.

Equitably and ethically managing, sustaining, and acquiring human, fiscal, and information resources, as well as assets to fulfill mission of the community college and postsecondary education institutions. Financial strategies and human resource systems and conflict resolution.

ARP 813. Strategic Planning in Community Colleges (3)

Prerequisite: Administration, Rehabilitation and Postsecondary Education 801.

Knowledge-based strategic planning to maximize student success in community colleges and postsecondary educational institutions. Board-administrator relationship development and use of data-driven evidence for decision-making.

ARP 827. Seminar in Emerging Issues in Postsecondary Education (3)

Prerequisite: Admission to educational leadership doctoral program.

Identification and analysis of complex emerging local, national, and international issues that face high level postsecondary educational leaders.

ARP 896. Selected Topics in Administration, Rehabilitation and Postsecondary Education (1-3)

Prerequisite: Admission to educational leadership doctoral program.

Intensive study in specific areas of Administration, Rehabilitation and Postsecondary Education. In-depth investigation of specific challenges in the field as well as introduction to current and emerging issues. May be repeated with new content. Maximum credit six units. See *Class Schedule* for specific content. Credit for 896 applicable to a doctoral degree with approval of the graduate adviser.

Child and Family Development

IN THE COLLEGE OF EDUCATION

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Courses Acceptable for Master's Degree Program in Child Development (CFD)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

CFD 536. Divorce and Remarriage (3)

Prerequisites: Child and Family Development 335, 370 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)

Prerequisites: Child and Family Development 370, 375A, 375B, 375C, and two units from Child and Family Development 378A, 378B, 378C, 378D. **Proof of completion of prerequisites required:** Copy of transcript.

Multidisciplinary approach to child abuse and family violence including maltreatment, mistreatment, neglect, sexual abuse.

CFD 560. Theories in Socio-Emotional Development (3)

Prerequisites: Child and Family Development 370, 375A, 375B, 375C, 475, and two units from Child and Family Development 378A, 378B, 378C, 378D. **Proof of completion of prerequisites required:** Copy of transcript.

Socio-emotional development from infancy to adulthood. Theory of mind, emotional intelligence, and relationship-based development.

CFD 565. Best Practices of Care for Infants/Toddlers (3)

Prerequisites: Consent of instructor, Child and Family Development 370, and 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.

Best practices of care for infants and toddlers to include respectful, attentive physical care, its basic principles and the practical components of best practices of care for young children. Design environments of care that ensure safety and optimum growth and development in collaboration with families via meaningful connections between child care and child's home and culture.

CFD 575. Public Policy and Professional Ethics in Child and Family Development (3)

Prerequisites: Child and Family Development 370, 375A, 375B, 375C, two units from Child and Family Development 378A, 378B, 378C, 378D, and Child and Family Development 536 or 537 or 590.

Proof of completion of prerequisites required: Copy of transcript.

Ethical guidelines and other standards related to child and family development. Informed advocates for equitable educational practices and policies.

CFD 577. Professionalism and Advanced Administration of Child Development Programs (3)

Prerequisite: Child and Family Development 477. **Proof of completion of prerequisite required:** Copy of transcript.

Problem analysis and development of successful organizational strategies for child development program delivery. Leadership, effective communication, social and ethical issues from a multicultural perspective.

CFD 578. Conflict Resolution Across the Life Span (4)

Three lectures and three hours of laboratory.

Prerequisites: Child and Family Development 335, 370, 375A, 375B, 375C, 475, two units from Child and Family Development 378A, 378B, 378C, 378D, and Child and Family Development 537 and 560 with an overall grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript.

Theories of conflict development and resolution across lifespan. Parenting styles, discipline, behavior and class management, and conflict resolution techniques used in relationships. Directed experiences using conflict resolution techniques in various settings.

CFD 580. Observation and Assessment of Young Children's Environments and Relationships (3)

Prerequisite: Senior standing.

Ecobehavioral and developmental techniques and procedures to measure development, relationships, and environments. Administration of measures in class and in field.

CFD 585. Family Involvement and Engagement with Young Children: Work with Families at Risk (3)

Prerequisites: Senior standing. Concurrent registration in Child and Family Development 597.

Role of parents and caregivers in supporting and enhancing developmental outcomes. Home visitation programs, practices, and techniques. Field experience working with families at risk.

CFD 590. Children with Special Needs (4)

Three lectures and three hours of laboratory.

Prerequisites: Child and Family Development 270 or Psychology 230, Child and Family Development 353A, 353B, 353C, 370, 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 etiology, development, and adjustment of emotional, psychological, and physical disorders. Directed experience with special needs individuals and their families with focus on inclusion.

CFD 595. Early Childhood Mental Health: Theory and Practice (3)

Prerequisite: Senior standing.

Neurorelational framework to understand brain development and mental health. Emotional and behavioral regulation support at home and in educational settings.

CFD 596. Advanced Studies in Child and Family Development (1-6)

Prerequisites: Nine upper division units in child and family development.

Advanced study of selected topics. May be repeated with new content. See *Class 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 a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CFD 597. Field Experience in Child and Family Development Programs (3) Cr/NC

Prerequisites: Completion of five child and family development 500-level courses with a grade of C (2.0) or better in each course.

Proof of completion of prerequisites required: Copy of transcript.

Work experience in child and family development. Application of theoretical and evidence-based information with reflective supervision from faculty and field supervisor. Development of professional identity, cultural self-awareness, and career goals. Maximum credit six units.

CFD 598. Reflective Learning Portfolio (1) Cr/NC

Two hours of activity.

Prerequisite: Senior standing. Limited to child development majors. Major code: 08231.

Capstone course to mentor child development majors to integrate knowledge acquired throughout child and family development program. Create portfolio and reflective essay.

GRADUATE COURSES

CFD 624. Seminar in Family Processes (3)

Prerequisite: Child and Family Development 335.

Analysis of selected research in family structure, development, and crisis. (Formerly numbered Child and Family Development 634.)

CFD 634A. Seminar in Family Therapy Theory and Techniques (3)

Prerequisite: Child and Family Development 335.

Family therapy theory and techniques to include cognitive-behavioral, multigenerational, psychodynamic, strategic, and structural models. Epistemological, theoretical, and foundations of family systems theory. (Formerly numbered Child and Family Development 634.)

CFD 634B. Seminar in Counseling Theories and Techniques (3)

Prerequisite: Classified graduate standing.

Psychotherapy theory and techniques to include cognitive-behavioral, emotion-focused, family systems, person-centered, and psychoanalytic. Interpersonal neurobiological foundation of psychological development and its theoretical and epistemological constructs.

CFD 660A. Seminar in Early Childhood Mental Health Career Development (3)

Prerequisite: Consent of graduate adviser.

Career development theories and techniques to include decision making models, interrelationships among and between family, work, and other life roles and factors; and multicultural issues in career development. (Formerly numbered Child and Family Development 660.)

CFD 660B. Seminar in Professional Law and Ethics in Counseling (3)

Prerequisite: Consent of graduate adviser.

Ethical standards, legal statutes, and regulations established by American Ethical standards, legal statutes, and regulations established by the American Counseling Association and the Board of Behavioral Sciences related to the practice of family therapy and psychotherapy. Child and elder abuse assessment and reporting, confidentiality, Health Insurance Portability and Accountability Act, involuntary commitment, patients' rights, privileged communication, other legal and ethical concerns specific to licensed professional clinical counselor profession.

CFD 670A. Seminar in Human Development Theories-Attachment and Affect Regulation in Young Children (3)

Prerequisites: Six upper division units in child and family development.

Advanced child and human growth theories. Attachment and affect regulation applications, models, research, and theories. Developmental crises, disability, and psychopathology. (Formerly numbered Child and Family Development 670.)

CFD 670B. Seminar in Human Development Theories-Intervention and Prevention Lifespan Approach (3)

Prerequisite: Classified graduate standing.

Advanced child and human growth and development theories. Intervention and prevention applications, models, research, and theories. Developmental crises, disability, and psychopathology.

CFD 671A. Seminar in Supporting Early Childhood Mental Health (3)

Prerequisites: Six upper division units in child and family development.

Psychotherapeutic theories and techniques for early childhood mental health specialists and practitioners to include positive behavior support models. Multidisciplinary models of response to crises and trauma using multicultural approach. (Formerly numbered Child and Family Development 671.)

CFD 671B. Seminar in Supporting Early Childhood Mental Health-Counseling and Psychotherapeutic Techniques and Theories (3)

Prerequisite: Classified graduate standing.

Ecological approach to child and family mental health interventions and overview of scientific literature on intervention effectiveness.

CFD 697A. Advanced Field Experiences A (3) Cr/NC

Prerequisite: Child and Family Development 670A, 670B, 671A, or 671B.

Human developmental theories and techniques in various community settings. Individual and group supervision. Maximum credit six units. (Formerly numbered Child and Family Development 697.)

CFD 697B. Advanced Field Experiences B (3) Cr/NC

Prerequisite: Child and Family Development 670A, 670B, 671A, or 671B.

Mental health and well-being of young children and families in culturally diverse communities. Multicultural theories and knowledge bases to clinical situations, strengths within diverse cultures, thoughts and feelings working with families from diverse cultures. Maximum credit six units.

CFD 698. On-Site Coaching and Consultation in a Clinical Setting (1-2) Cr/NC

Prerequisite: Consent of graduate adviser.

Professional competence, self-awareness, and understanding through on-site coaching experience. Working effectively with families, infants, and young children.

CFD 790. Research Methods and Program Development (3)

Prerequisite: Approval of graduate program adviser.

Research in child and family development: criteria and procedures for conducting research. Development of programs pertaining to children and families; literature review, proposal development, planning steps for implementation.

CFD 792. Advanced Clinical Experience and Group Supervision (3) Cr/NC

Prerequisite: Classified graduate standing in child development degree program.

Clinical field experience with individuals and groups. Advanced clinical supervision of group processes and working with young children and families experiencing trauma. Maximum credit three units applicable to master's degree in child development. Maximum credit six units applicable to master's degree in child development with concentration in early childhood mental health.

CFD 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Consent of staff; to be arranged with the chair and instructor and approval of graduate program adviser.

Individual study. Maximum credit six units applicable to a master's degree.



CFD 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis or project for the master's degree.

CFD 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university, also student must be registered in the course when the completed thesis is granted final approval.

CFD 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Counseling and School Psychology

IN THE COLLEGE OF EDUCATION

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Janice A. Ewing, Ph.D., Lecturer in Counseling and School Psychology

Sarah Z. Kahn, M.A., Lecturer in Counseling and School Psychology

Courses Acceptable for Master's Degree Programs in Counseling (CSP)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSE

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

CSP 600. Cross-Cultural Counseling Communication Skills (2)

Prerequisite: Concurrent registration in Counseling and School Psychology 600L.

Concepts underlying effective cross-cultural counseling practice and interpersonal communication. Development of skills basic to practice of counseling, consultation, and marriage-family therapy.

CSP 600L. Cross-Cultural Counseling Prepracticum (1) Cr/NC

Prerequisite: Credit or concurrent registration in Counseling and School Psychology 600.

Development of self-understanding. Cross-cultural communication skills needed for becoming an effective counselor. May be repeated with new content. Maximum credit three units applicable to a master's degree in counseling.

CSP 601. Theoretical Foundations of Counseling and Marriage and Family Therapy (3)

Prerequisites: Counseling and School Psychology 600 and 600L.

Counseling and marriage and family therapy theories and their impact on the practices of counselors, school counselors, school psychologists, marriage-family therapists and their clients. Approaches and applications for counseling and therapy. Research on counseling and marriage and family therapy.

CSP 606. Professional Issues in Mental Health Practice (3)

Prerequisites: Counseling and School Psychology 600 and 600L.

Legal, ethical, and professional issues in counseling and marriage and family therapy practice, research, and training. Cultural underpinnings and clinical implications of legal and ethical codes.

A. California Law and Ethics for Marriage and Family Therapy

B. Community-Based Block

CSP 609. Family Life Cycle Development (3)

Prerequisites: Counseling and School Psychology 600 and 600L.

Family development examined within sociocultural and temporal contexts. Addresses predictable and crisis transitions and implications for family therapy treatment.

CSP 610. Determinants of Human Behavior (1-3)

Implications of theory and research in behavioral sciences for the understanding of human behavior.

B. Social and Cultural

C. Development

D. School Learning

E. Biological

CSP 615. Seminar in Multicultural Dimensions in Counseling (3)

Issues, insights, and techniques for improving effectiveness in working with culturally diverse populations.

CSP 618. Mental Health Recovery and the DSM: A Social Justice Perspective (3)

Prerequisite: Counseling and School Psychology 601.

Descriptions of mental health disorders within biological, individual, familial, and larger social contexts. Focus on Diagnosis and Statistical Manual of Mental Disorders classification system and relationship to family functioning.

CSP 619. Foundations in Ecosystemic Thinking and School Psychology (3)

Prerequisite: Admission to school psychology program.

Education and professional development of multiculturally competent, ecosystemic school psychologists involved in the lives of students, families, and schools.

CSP 620. Foundations of the Professional School Counselor Leader (3)

Prerequisite: Admission to school counseling program.

Comprehensive school counseling to include historical perspective of school counseling policies, practices, future leadership directions, role and function of professional school counselor leader. Current trends in school counseling.

CSP 621. Social Justice Democratic Theory, Processes, and Skills (2)

Prerequisite: Concurrent registration in Counseling and School Psychology 621L.

Multicultural community counseling and social justice practice, to include democratic processes, community-building, and professional communication skills. Social change through working with people in communities, increasing self- and other-awareness, and relationship building. Fulfills licensure requirements for LPCC.

CSP 621L. Social Justice Democratic Theory, Processes, and Skills Laboratory (1) Cr/NC

Prerequisite: Concurrent registration in Counseling and School Psychology 621.

Supervised practice in multicultural community counseling and social justice practice, to include democratic processes, community-building, and professional communication skills. Social change through working with people in communities, increasing self- and other-awareness, and relationship building. Fulfills licensure requirements for LPCC.

CSP 623. Ecobehavioral Assessment - Intervention (3)

Prerequisite: Concurrent registration in Counseling and School Psychology 730 or 740.

Theory and concepts underlying ecobehavioral assessment - intervention in multicultural schools. Functional assessment of individual student behavior in contexts of classroom and culture. Development of behavior support plans in collaboration with teachers. Implementing and evaluating ecobehavioral consultation.

CSP 624. Learning, Achievement, and Instruction for School Counselors (3)

Prerequisite: Counseling and School Psychology 620.

Classroom management strategies and techniques. Curriculum design, lesson plan development, assessment tools, and instructional strategies for delivering school counseling core curriculum (academic, college/career, personal/social) in diverse schools.

CSP 625. Marriage and Family Therapy Theories and Best Practices I (3)

Prerequisite: Counseling and School Psychology 601.

Historical and empirical foundations of marriage and family therapy. Classic systemic theoretical models of practice from vantage point of assessment. Related change strategies and techniques.

CSP 626. Marriage and Family Therapy Theories and Best Practices II (3)

Prerequisite: Counseling and School Psychology 625.

Contemporary marriage and family therapy theories including: post-modern ideas, such as narrative therapy and collaborative language systems, integrative and evidence-based approaches; alternative approaches to family therapy, such as coaching and mediation.

CSP 630. Social Justice and Holistic School Systems for School Counselors (3)

Prerequisite: Counseling and School Psychology 620.

Historical and current holistic school systems and role of professional school counselor. Ecosystemic and social justice theory and models; practical implications for providing school counseling services for individual students in multicultural schools.

CSP 635. Sexuality and Intimacy in Couple and Family Therapy and Counseling (1-2)

Prerequisites: Counseling and School Psychology 621 and 621L or 625, or consent of instructor.

Approaches to understanding sexual functioning and intimacy through multicultural, historical, and relational clinical theory frameworks. Specific sexual issues presented in therapy, treatment planning, and intervention. Fulfills marriage and family therapy and LPCC licensure requirements.

CSP 640. Testing and Assessment for Marriage and Family Therapists (2)

Prerequisite: Education 690.

Theory and application of individual and relationship assessment instruments in marriage and family therapy practice. Test development processes. Cultural factors in testing and interpretation. Current uses of tests in mental health, educational, and legal institutions. (Formerly offered as Counseling and School Psychology 640, Theories and Process of Appraisal, 3 units.)

CSP 642. Multicultural Assessment in Individual and Community Counseling (2)

Prerequisite: Education 690.

Theory and practice of individual assessment measures from a multicultural and social justice perspective in community counseling. Test development processes. Social justice and cultural factors in testing and interpretation. Current uses of tests in community settings. Fulfills licensure requirements for LPCC.

CSP 642L. Multicultural Assessment in Individual and Community Counseling Laboratory (1) Cr/NC

Prerequisite: Education 690.

Supervised practice and application of individual assessment measures from a multicultural and social justice perspective in community counseling. Test development processes. Social justice and cultural factors in testing and interpretation. Current uses of tests in community settings. Fulfills licensure requirements for LPCC.

CSP 643. Psychoeducational Evaluation Techniques (1) Cr/NC

Prerequisite: Counseling and School Psychology 641.

Theories and concepts underlying psychoeducational evaluation in multicultural schools. Administration and interpretation of instruments and techniques for psychoeducational evaluation of children and adolescents.

B. English – Learners

CSP 644. Academic Assessment - Intervention (3)

Prerequisite: Concurrent registration in Counseling and School Psychology 730 or 740.

Current concepts of prevention and intervention strategies for students placed at risk for academic difficulties in multicultural schools. Skills in assessment of academic achievement (standardized and authentic), linked to empirically supported intervention strategies, evaluation of intervention effectiveness.

CSP 645. College Planning and Career Development P-16 (3)

Prerequisite: Counseling and School Psychology 620.

College planning, career readiness, and career technical education P-16. Technology promoting equity, access, and opportunity for culturally diverse populations to post secondary options.

CSP 650. Trauma and Crisis Counseling in Multicultural Community Context (1-3)

Prerequisites: Counseling and School Psychology 601; 621 and 621L or 625, or consent of instructor.

Multicultural and social justice; crisis and trauma counseling and therapy to include historical and philosophical origins of current theories and practices and implications for multidisciplinary treatment. Trauma and diversity.

CSP 662. Counseling Interventions with Children and Adolescents (3)

Prerequisites: Counseling and School Psychology 601 and 610C.

Counseling theories, processes and approaches appropriate to children and adolescents in multicultural school and community settings. Application of theories and research for individual, group, family and larger systems interventions.

A. Marriage and Family Therapy

B. School Counseling and School Psychology

CSP 663. Response to Intervention: Assessment-Intervention for Learning I (3)

Prerequisites: Admission to school psychology program and a psychometrics course approved by faculty.

Foundational assessment skills in authentic and curriculum-based approaches for intervention for school-age students. Standardized assessment as a bridge to part II.

CSP 664. Response to Intervention: Assessment-Intervention for Learning II (3)

Prerequisite: Counseling and School Psychology 663.

Implement Response to Intervention (RTI) in psychoeducational assessment and intervention. Academic and cognitive assessment-intervention of theories, assessment practices, and intervention.

CSP 670. Theory and Process of Group Counseling (2-3)

Prerequisites: Counseling and School Psychology 600 and 600L.

Group process, theories of group interaction, and group leadership techniques with children, adolescents, adults, couples, and families. Fulfills requirements for licensed professional clinical counselor and marriage and family therapy licensure.

CSP 670L. Group and Community Counseling Laboratory (1) Cr/NC

Prerequisite: Credit or concurrent registration in Counseling and School Psychology 670.

Supervised practice in group counseling, community counseling, group leadership. May be repeated with new content. Maximum credit three units applicable to master's degree in counseling.

CSP 680. Theory and Process of Consultation (3)

Prerequisites: Counseling and School Psychology 600 and 600L.

Consultation theory, process, and research for counselors and school psychologists. Emphasis on mental health and problem-solving consultation in multicultural education and mental health settings.

CSP 687. Family and Systemic Treatment of Substance Abuse (1-3)

Prerequisite: Counseling and School Psychology 621 and 621L or 625, or consent of instructor.

Systemic models of intervention for families, couples presenting problems related to substance abuse. Includes treatment issues of interdependence, power, intimacy, generational patterns, addition and relapse. Fulfills marriage and family therapy and LPCC requirements.

CSP 688. Family Systems Assessment of Child Abuse (1)

Prerequisite: Counseling and School Psychology 601.

Examines child abuse assessment within individual, family sociocultural, developmental and systemic frameworks. Treatment goals, issues and strategies derived from family systems therapies. Fulfills marriage and family therapy licensure requirement.

CSP 689. Family Counseling in the Schools (1)

Prerequisites: Counseling and School Psychology 600 and 600L.

Roles and approaches of family counselor in working with schools for children's school-based problems. Family systems theory and practice applied to family-school interface, cultural interaction, specific symptomology, and professional and ethical issues.

CSP 691. Violence in Couples' Relationships (1)

Prerequisite: Counseling and School Psychology 621 and 621L or 625, or consent of instructor.

Sociocultural, developmental, family and individual contexts of violence in couples' relationships. Assessment with a focus on systemic ideas and practices. Legal, ethical, and person-of-the-therapist influences on assessment. Fulfills marriage and family therapy and LPCC licensure requirements.

CSP 692. Seminar: Couples Therapy and Evidence-Based Relational Practices (3)

Prerequisites: Counseling and School Psychology 609 and 625.

Explores and applies theory and practice of therapy with couples in premarital, marital, non-marital, divorce, recoupling, and remarriage situations. Intra and intercultural issues and gender factors in coupling. Discussion of specific problems such as infidelity or depression.

CSP 693. Special Topics in Families and Larger Social Systems (1)

Prerequisite: Counseling and School Psychology 625.

Variable topics addressing issues of relationships between families and larger social systems relationships in marriage and family therapy. Examples include: home-based family therapy, immigrants and refugees in therapy, cultural trauma, larger systems change, spirituality, technology and therapy. May be repeated with new content. Maximum credit six units.

CSP 694. Psychopharmacology for Marriage and Family Therapists and Counseling (2-3)

Prerequisite: Counseling and School Psychology 618.

Medical, cultural, systemic perspectives on use of psychopharmacology in marriage and family therapy practice. Overview of most commonly used drugs in psychotherapeutic treatment. Fulfills marriage and family therapy and LPCC licensure requirements.

CSP 696. Selected Topics in Counseling and School Psychology (1-3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of counseling and school psychology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CSP 710A-710B. Professional Seminar (3-3)

Prerequisites: Education 690. Six units from Counseling and School Psychology 601, 640, and 670.

Study of selected areas in counseling, marriage and family therapy, school counseling, or school psychology culminating in a written project with emphasis on counseling as a profession. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit nine units applicable to a master's degree.

CSP 711. Intensive Study in School Psychology (1-6)

Prerequisite: Admission to the school psychology program.

Selected areas in school psychology theory and practice. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit eight units.

CSP 723. School-Based Mental Health Interventions (3)

Prerequisite: Counseling and School Psychology 623.

Mental health disorders in school-aged children. Factors that promote psychological healthy and safe schools. Psychological interventions to improve emotional, behavioral, and social functioning of children and adolescents in school settings.

CSP 726. School Psychology Models and Practices for Family-School Collaboration (3)

Prerequisites: Counseling and School Psychology 600, 600L, 619, 623.

Models, theory, research, and practice in school psychology roles in family-school collaboration in diverse schools. School-wide, group, and individual approaches for improving school climate, parent engagement, communication, and interventions involving families, school staff, school psychologists, and others.

CSP 730. Fieldwork in Counseling (2-6) Cr/NC

Prerequisite: Counseling and School Psychology 601 or 662 or 670.

Application of concepts and procedures of counseling, school counseling, or school psychology services in appropriate school or agency setting. Daily observation and practice. Weekly seminar sessions with university staff. Application to take the course must be made early during the preceding semester. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree in counseling.

CSP 733. Ethics and Law for Educators (3)

Prerequisite: Graduate standing in counseling and school psychology, special education, or teacher education.

Professional issues in school psychology, special education, applied behavioral analysis, and mental health. Professional ethics, dilemmas, legislation, and case law relevant to delivery of ethically and legally sound services.

CSP 740. Practicum (1-6) Cr/NC

Prerequisite: Counseling and School Psychology 601.

Supervised experience in counseling, school counseling, or school psychology. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit nine units applicable to a master's degree in counseling.

CSP 742. Policy, Politics, Law, and Ethics for School Counselors (1-3)

Prerequisite: Counseling and School Psychology 620.

Policies and politics influencing education, school counselors, and students. Legal mandates, ethical standards, practices of the school counseling profession, and how to apply to educational and counseling situations.

CSP 744. Cognitive Assessment - Intervention (3)

Prerequisite: Counseling and School Psychology 644.

Theories underlying cognitive assessment. Implications for school learning. Collaborative consultation with teachers regarding instructional and academic interventions in multicultural schools. Administration and interpretation of cognitive assessment techniques used by school psychologists. Design, implementation, and evaluation of interventions. Effective report writing.

CSP 750. Response to Intervention: Assessment and Instructional Support for Culturally and Linguistically Diverse Learners (3)

Prerequisite: Counseling and School Psychology 644 or 663.

Effective assessment and instructional support strategies for culturally and linguistically diverse students within Response to Intervention (RTI) framework. Language and culture, disproportionality in special education, non-biased assessment practices and interventions, and report writing.

CSP 751. Response to Intervention: Advanced Assessment-Intervention: Special Populations (3)

Prerequisites: Counseling and School Psychology 664 and 750.

Response to Intervention (RTI) and instructional support strategies for special populations to include autism, preschool, and low incidence disabilities. Developmental and play-based assessment, individual differences, and diversity.

CSP 752. Seminar and Practicum: School Psychology (3-6) Cr/NC

Nine hours of practicum for three units.

Prerequisite: Counseling and School Psychology 730.

School psychology in multicultural school settings; implications for standard and innovative school psychology practices. Maximum credit six units applicable to the Ed.S. degree.

CSP 755. Practicum I: Marriage and Family Therapy (3) Cr/NC

Prerequisite: Counseling and School Psychology 625.

Supervised experience in relationship and family therapy under live supervision. Application of assessment methods and basic techniques. Clinical hours may be counted toward 500 clinical hours and marriage and family licensure eligibility requirement. May be repeated for additional clinical training experience. Maximum credit nine units applicable to a master's or Ed.S. degree.

CSP 760. Advanced Seminar in School Psychology (3)

Prerequisites: Counseling and School Psychology 710A and 752.

Study of selected areas in school psychology which culminates in a written project with emphases on research, problems and/or issues. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CSP 761. Dynamic Cognitive Assessment and Intervention (3)

Prerequisite: Advancement to candidacy.

Theory and practice of cognitive modifiability and knowledge construction; role of culture and second language acquisition in cognitive development. Proficiency in identifying and assessing modifiable cognitive functions; administer and interpret multiple assessment tools; report to parent and teacher.

CSP 762. Prevention, Crisis Intervention, and Conflict Resolution in Schools (3)

Prerequisite: Counseling and School Psychology 662.

Examination, design, implementation, and evaluation of wellness, prevention, intervention, and other mental health programs at individual, group, and system levels in schools. Focus on roles for school support personnel in promoting wellness and resiliency and intervening in school settings.

CSP 764. Advanced Educational Psychology: Developmental and Biological Bases of Behavior (3)

Prerequisite: Counseling and School Psychology 723.

Human neuropsychology relevant to assessment and intervention practices within school settings; associated biological and cultural influences on human behavior. Brain-behavior relationships within context of cognitive and developmental psychology, learning, and education.

CSP 765. Practicum II: Marriage and Family Therapy (3) Cr/NC

Prerequisite: Counseling and School Psychology 755.

Advanced supervised experience in relationship and family therapy under live supervision. Advanced techniques and treatment planning. Clinical hours may be counted toward 500 clinical hours and marriage and family licensure eligibility requirement. May be repeated with additional clinical training experience. Maximum credit three units applicable to a master's degree.

CSP 769. The Achievement Gap: Leadership, Advocacy, and Systemic Change (3)

Prerequisite: Counseling and School Psychology 620.

Leadership, advocacy, systemic change theory, practice to disaggregate data, identify equity, and access issues. Create student and systems interventions to target opportunity, attainment, and achievement gaps in schools.

CSP 770. Advanced Seminar in Counseling (3)

Prerequisite: Advancement to candidacy or counseling experience.

Selected areas in counseling culminating in a written project with emphasis on research, problems, and issues. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

CSP 771. Advanced Learning and Multi-Tiered Mediated Interventions (3)

Prerequisite: Counseling and School Psychology 761.

Design and delivery of cognitively mediated interventions tiers 1, 2, and 3 of Response to Intervention (RTI). Incorporation of critical thinking, prior knowledge and cultural grounding, standards, depth of content, and progress monitoring.

CSP 775. ASCA Model I: Developing and Implementing a School Counseling Program (3)

Prerequisite: Counseling and School Psychology 620.

Part I of a two part sequence. Professional knowledge, skills, competencies, and abilities to create, implement, and evaluate school counseling program in K-12 schools. Program foundation, design, and implementation.

CSP 776. ASCA Model II: Evaluating and Improving School Counseling Programs (3)

Prerequisite: Counseling and School Psychology 620.

Part II of a two part sequence. Professional knowledge, skills, competencies, and abilities to create, implement, and evaluate school counseling program in K-12 schools. Program assessment, accountability, and evaluation.

CSP 780. Internship (2-12) Cr/NC

Prerequisite: Counseling and School Psychology 730.

Supervised internship experience in counseling or school psychology activities. Application to take the course must be made early during the preceding semester. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. Maximum credit 24 units applicable to the specialization in school psychology.

CSP 784. Advanced Consultation in Diverse Schools (3)

Prerequisites: Counseling and School Psychology 680, 723, 726.

Consultation research, theories, and expertise in cross-cultural and consultee-centered consultation. Clinical skills in advanced consultation challenges to include interrupting racism, promoting conceptual change, shifting perceptions, and development of sustainable interventions.

CSP 785. Marriage and Family Therapy Traineeship (1-10) Cr/NC

Prerequisite: Counseling and School Psychology 755.

Community-based clinical marriage and family therapy experience, with AAMFT approved supervisor or equivalent. Individual and group supervision at site and on campus. Clinical hours may be counted toward 500 clinical hours and marriage and family therapy licensure eligibility requirement. May be repeated with new content. Maximum credit ten units.



CSP 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the Master of Science degree in counseling.

CSP 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Thesis 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

CSP 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's or Ed.S. degree. Registration in 799C limited to two semesters.

Dual Language and English Learner Education

IN THE COLLEGE OF EDUCATION

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Sera J. Hernandez, Ph.D., Assistant Professor of Dual Language and English Learner Education
Saúl Isaac Maldonado, Ph.D., Assistant Professor of Dual Language and English Learner Education

Courses Acceptable for Master's Degree Programs in Education (DLE)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

DLE 515. Multilingual Education: Theory and Practice for Bilingual Teachers (3)

Pedagogical and programmatic practices for addressing linguistic and academic needs of multilingual learners. Historical and theoretical foundations of bilingual education as related to bilingual and dual language programs to include instruction, curriculum, and assessment. Taught in Spanish and English. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 515.)

DLE 523. Psychological Foundations for Biliteracy Teachers in K-6 Classrooms (3)

Major theories of learning and cognition as applied to bilingual students and their relation to child development, first and second language acquisition, and approaches to teaching in bilingual classroom. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 523 and 923.)

DLE 524. Psychological Foundations for Biliteracy Teachers in Grades 7-12 (1-4)

Bilingual learning theory as it affects adolescent growth, individualized instruction, classroom management and discipline, and methods of measuring and evaluating achievement. Taught in Spanish and English. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 524 and 924.)

DLE 532. Biliteracy Teaching in Language Arts for Elementary Students (3)

Prerequisites: Dual Language and English Learner Education 415 and 515.

Assessing language proficiency; selecting, designing, and evaluating learning experiences to develop biliteracy in K-6 classrooms in English language arts and Spanish, Arabic, or Mandarin. Taught bilingually in language of emphasis and English. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 532 and 932.)

DLE 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. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 553.)

DLE 596. Special Topics in Bilingual and Multicultural Education (1-3)

Prerequisite: Consent of instructor.

Selected topics in bilingual, cross-cultural education and policy studies. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

DLE 600A. Foundations of Democratic Schooling (3)

Prerequisite: Consent of instructor.

Analysis of relationships among ideology, culture, and power in educational context; key concepts in critical pedagogy applied to programs, curricula, and school restructuring. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 600A.)

DLE 600B. Foundations of Dual Language Programming for Critical Biliteracy Development (3)

Prerequisite: Bilingual authorization credential or score of 3 on SDSU Spanish examination.

Critical literacy and democratic schooling for dual language program models. Program models that apply to policies and practices that inform literacy curriculum and pedagogy in dual language-biliteracy settings. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 600B.)

DLE 601. Language Policies and Practices (3)

Prerequisite: Consent of instructor.

Formal and informal policies related to education of linguistically diverse students at micro/macro level and in school contexts; analysis of bilingual and cross-cultural issues in cognition and literacy. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 601.)

DLE 603. Community and Schools in a Diverse Society (3)

Prerequisite: Consent of instructor.

Linguistic and cultural diversity of school and community. Development of community sociocultural scan; home and school collaboration; effects of home and school collaboration on achievement; responsibility of parent caretaker, stakeholder for student success. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 603.)

DLE 604. Learning and Teaching Language in a Dual Language Setting (3)

Prerequisite: Bilingual authorization credential or score of 3 on SDSU Spanish examination.

Dual language instructional methods, modeling oral and written grammatical structures. Language acquisition strategies for English and Spanish in K-12 grades. Emphasis on written structures for academic literacy. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 604.)

DLE 650. Curriculum Development for Urban School Communities (3)

Prerequisites: Dual Language and English Learner Education 600A and 601.

Curriculum development through lens of critical theory. Principles of curriculum and instruction contextualized and with regard to particular educational institutions or work sites from a social justice perspective. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 650.)

DLE 651. Curriculum, Teaching, and Assessment: ELD and SDAIE (1-3)

Prerequisite: Dual Language and English Learner Education 915A or 915B.

English language development and delivery of comprehensive instruction for English learners. Strategies for implementing state adopted instruction programs for ELD in language and content. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 651.)

DLE 652. Literacy and Language: Critically Examining Curriculum for Teaching and Learning (3)

Prerequisite: Dual Language and English Learner Education 650. Research in literacy and multi-cultural curriculum theories, methods, and teaching connected to community, school, and personal literacies. Literacy practices for educating diverse students; varying definitions of literacy and social-political contexts of literacy curriculum.

DLE 653. Language Development in K-12 Multilingual Classrooms (3)

Prerequisite: Admission to bilingual authorization credential program.

Dual language and multilingual classrooms, universals and differences in language structure, transfer, and use (including basic linguistics). First and additional language development; related factors (political/sociocultural aspects of bilingualism). Taught in English and Spanish. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 653 and 953.)

DLE 686. Seminar in Multicultural Education (1-6)

Prerequisite: Consent of instructor.

Topics dealing with current issues in multicultural education. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 686.)

DLE 798. Special Study (1-6) Cr/NC/RP

Prerequisite: Consent of instructor; to be arranged with department chair and instructor.

Individual study. May involve fieldwork. Maximum credit six units applicable to a master's degree.

CREDENTIAL COURSES

DLE 910. Teaching Mathematics to Bilingual Students (1-3)

Prerequisite: Admission to Bilingual 2042 Multiple Subject credential program.

Underlying learning theories for teaching mathematical concepts, computation, and problem-solving skills to bilingual students. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 910.)

DLE 911. Teaching Social Studies to Bilingual Students (1-3)

Prerequisite: Admission to Bilingual 2042 Multiple Subject credential program.

Conceptual approaches for teaching bilingual social studies curriculum, incorporating sociocultural characteristics of multicultural community, social concepts, and community social issues. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 911.)

DLE 912. Teaching Science to Bilingual Students (1-3)

Prerequisite: Admission to Bilingual 2042 Multiple Subject credential program.

Strategies for development of process skills and concept acquisition. Methodology for teaching activity-oriented science class bilingually. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 553 and 912.)

DLE 915. Teaching and Learning in the Content Area: English Language Development/SDAIE (1-3)

Prerequisites: Education 451, Dual Language and English Learner Education 515, and admission to Bilingual 2042 Single Subject credential program.

Teaching strategies in content specific fields from second language acquisition perspective taken concurrently with student teaching. See *Class Schedule* for specific content. May be repeated with new content. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 914 and 915.)

- A. Multiple Subjects
- B. Single Subjects
- C. Special Education

DLE 925. Intern Seminar: Teaching English Learners (1)

Prerequisite: Admission to an internship program in dual language and English learner education, special education, or teacher education.

Research-based instruction to meet the needs of diverse language learners in a variety of classroom settings. Maximum credit six units.

DLE 931. Skills in Teaching Reading to Bilingual Elementary Students (1-3)

Prerequisite: Admission to Bilingual 2042 Multiple Subject credential program.

Teaching reading in English, including methods, strategies, assessment, materials, and techniques of transition for implementing reading programs in the bilingual classroom. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 931.)

DLE 933. Skills in Teaching Reading to Bilingual Secondary Students (3)

Prerequisites: Upper division standing. Admission to Bilingual 2042 Single Subject credential program.

Methods for developing reading skills in Spanish and English across subject areas. Includes comprehension, academic vocabulary, concept development, reading strategies, and assessment. Taught in Spanish and/or English. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 933.)

DLE 954. Classroom Organization for Democratic Teaching in Bilingual Classrooms (1-4)

Prerequisites: Dual Language and English Learner Education 400; concurrent registration in Dual Language and English Learner Education 524 and 963; admission to single subject bilingual 2042 program.

Teaching practices to include democratic processes for classroom management in bilingual classrooms. Classroom teaching, classroom discipline, and curriculum management. Social-cultural and political contexts of teaching to include overview of teacher performance assessment tasks. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 954.)

DLE 960. Professional Seminar for Bilingual Teacher Candidates (1-4) Cr/NC

Prerequisite: Dual Language and English Learner Education 954.

Lesson planning and organization for bilingual elementary and secondary teacher candidates. Meeting needs of diverse learners in biliteracy settings. Maximum credit eight units. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 960.)

DLE 961. Practicum in Elementary Bilingual Classroom (1-12) Cr/NC

Prerequisite: Admission to Bilingual 2042 Multiple Subject credential program.

Field experience at two grade levels in a multicultural setting and a bilingual elementary classroom; student teacher assumes responsibility for planning and instruction for specified time to comply with State requirements. Maximum credit 12 units. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 961.)



DLE 962. Student Teaching for Elementary Bilingual Students II (1-12) Cr/NC

Prerequisite: Dual Language and English Learner Education 961.

Field experience in a multicultural setting or a bilingual elementary classroom. Student must provide own transportation to student teaching site. Maximum credit 12 units. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 962.)

DLE 963. Practicum in Secondary Bilingual Classroom (3-4) Cr/NC

Prerequisites: Dual Language and English Learner Education 400; concurrent registration in Dual Language and English Learner Education 524 and 954; admission to the single subject bilingual emphasis program. Students must provide own transportation to student teaching site.

On-site, part-time experience to implement bilingual teacher competencies introduced in Dual Language and English Learner Education 515, 524, and 954. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 963.)

DLE 964. Student Teaching for Bilingual Secondary Students II (8-12) Cr/NC

Prerequisites: Dual Language and English Learner Education 524 and 963. Students must provide own transportation to student teaching site.

On-site, full-day experience in State approved bilingual and nonbilingual classes to implement teacher competencies as developed in the total professional sequence. Maximum credit 12 units. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 964.)

Educational Leadership

IN THE COLLEGE OF EDUCATION

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Ian R. Pumpian, Ph.D., Professor of Educational Leadership

Cheryl M. James-Ward, Ed.D., Associate Professor of Educational
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James M. Marshall, Ph.D., Associate Professor of Educational
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concentration in PreK-12 School Leadership

Courses Acceptable for Master's and Doctoral Degree Programs in Education (EDL)

*Refer to Courses and Curricula and Regulations of the Division
of Graduate Affairs sections of this bulletin for explanation of the
course numbering system, unit or credit hour, prerequisites, and
related information.*

UPPER DIVISION COURSE

EDL 596. Topics in Educational Leadership (1-3)

Selected problems in educational leadership. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

EDL 600. Organizational and Systems Leadership (3)

Prerequisites: Admission to Preliminary Administrative Services Credential program and classified graduate standing.

Educational administration and leadership as a profession. Related organizational concepts and management theories. Principles and competencies for leadership and administrative practice as each relates to the aspiring school administrator.

EDL 610. Visionary Leadership (3)

Prerequisites: Admission to Preliminary Administrative Services Credential program and classified graduate standing.

Concepts and techniques of leadership, analysis of factors and practice in procedures of individual and group leadership as applied to preK-12 educational environments.

EDL 620. Seminar in Educational Facility Community Engagement and Master Planning (2)

Prerequisite: Admission to Certificate in Educational Facility Planning.

Models of community partnership processes, methods for determining accurate enrollment projections, and stages, timelines, and processes for designing and implementing a school facility project.

EDL 621. Seminar in Designing Schools to Support Diverse Learning Style Needs (2)

Prerequisite: Admission to Certificate in Educational Facility Planning.

Linking school design to learning and teaching styles, enhancing opportunities for differentiated instruction within classrooms.

EDL 624. Seminar in Educational Facility Implementation (2)

Prerequisite: Admission to Certificate in Educational Facility Planning.

School facility capital project management from initial conception through planning, design, construction, and post-occupancy phases, presenting various project delivery models and defining role of stakeholders in each phase.

EDL 625. Seminar in Educational Facility Assessment and Maintenance (2)

Prerequisite: Admission to Certificate in Educational Facility Planning.

Purpose and methods of school facility life cycle assessment, indicators of quality, assessment instruments, maintenance programs as an assessment tool, and procedures and policies for institutionalizing assessment.

EDL 630. School Improvement Leadership (3)

Prerequisites: Admission to Preliminary Administrative Services Credential program and classified graduate standing.

Analyzing data to identify opportunities for school improvement. Appropriate and effective school improvement theories and strategies. Communication skills and leading others in improvement and monitoring of these efforts.

EDL 640. Community Leadership (3)

Prerequisites: Admission to MA degree or tier 1 credential program; Educational Leadership 600 and 610.

Increasing family and community involvement in schools. Improving student achievement through using educational leadership strategies and resources.

EDL 650. Professional Learning and Growth Leadership (3)

Prerequisites: Admission to Preliminary Administrative Services Credential program and classified graduate standing.

Model professional growth development. Principles of adult learning; identify and facilitate appropriate professional growth opportunities for staff. Collaboration with others to achieve mission of improving teaching and learning.

EDL 652. Seminar in Instructional Leadership (3)

Prerequisites: Admission to Preliminary Administrative Services Credential program and classified graduate standing.

Improvement of instruction through application of principles and practices in assessment of teaching competency; development of teaching profiles; leadership skills in working with teachers to improve performance.

EDL 655. Communication, Problem Solving, and Decision Making in PK12 (3)

Prerequisites: Admission to Preliminary Administrative Services Credential program and classified graduate standing.

Educational leadership principles and practices for communication, problem solving, and decision making in preK-12 schools and educational organizations.

EDL 660. Field Experience in Educational Leadership (1-6) Cr/NC/RP

Prerequisite: Admission to Preliminary Administrative Services Credential program.

Supervised field experience in schools or other educational settings. Monthly sessions with university faculty. Application to take this course must be made during preceding semester. Maximum credit 10 units of which 4 units are applicable to a master's degree.

EDL 680. Seminar in PreK-12 Educational Administration (2-6) Cr/NC

Prerequisite: Consent of instructor.

Educational administration in preK-12 schools and school districts. Field experience when appropriate. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

EDL 696. Advanced Topics in Educational Leadership (1-3)

Intensive study in specific areas of educational leadership. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

**EDL 707. Educational Law and Finance (3)**

Prerequisites: Completion of a graduate degree and approval of department.

Legal and financial aspects of educational administration including implications for policy formulation in the areas of personnel, instruction, and resource management.

EDL 720. Human Resource Development in PreK-12 Educational Organizations (3)

Prerequisites: Completion of a graduate degree and approval of department.

Human resource management in preK-12 educational administration including selection and evaluation of staff, contract management, and staff development. Personnel managerial styles, staff leadership, and motivation techniques as to morale and productivity. Analysis of educational personnel systems and employee assistance programs.

EDL 755. Governance and Policy Development in PreK-12 Learning Organizations (3)

Prerequisites: Completion of a graduate degree and approval of department.

Development of preK-12 educational policy and impact of politics in governance and administration; control functions of federal, state, and local agencies; influence of lay citizens and special interest groups; roles of judiciary, employee organizations and students.

EDL 760. Practicum in PreK-12 Educational Organizations (2-6) Cr/NC/RP

Prerequisite: Consent of instructor.

Internship for preK-12 educational administrators. Application to take this course must be made in the preceding semester by preregistration with the credential program coordinator. Released time may be required. May be repeated. Maximum credit 12 units applicable to the Professional Administrative Services Credential.

EDL 798. Special Study (1-6) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor. May involve fieldwork.

Individual study. Maximum credit six units applicable to a master's degree.

DOCTORAL COURSES**EDL 830. Leadership for Learning (3)**

Prerequisite: Admission to educational leadership doctoral program.

Models of curriculum, instruction, and school organization. The leader's role and responsibility in developing evidence-based decision making cultures that promote student achievement.

EDL 880. Seminar in Topics in Educational Leadership (3)

Prerequisite: Admission to educational leadership doctoral program.

Topical issues in field of educational leadership that have broad implications for research and practice in educational leadership. Maximum credit six units applicable to Ed.D. in educational leadership.

EDL 899. Doctoral Dissertation (1-15) Cr/NC/RP

(Offered only in the College of Extended Studies)

Prerequisites: Advancement to candidacy and an officially constituted dissertation committee.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved. No unit credit allowed toward advanced degree.

Special Education

IN THE COLLEGE OF EDUCATION

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Courses Acceptable for Master's Degree Programs in Education (SPED)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

SPED 500. Human Exceptionality (3)

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) Cr/NC

Three hours of observation/participation per week.

Prerequisite: 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 524. Characteristics of Students with Mild/Moderate Disabilities (3)

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)

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: Admission to credential program.

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 (3)

Prerequisite: Admission to credential program.

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)

Prerequisite: Admission to credential program.

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)

Prerequisite: Admission to credential program.

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 596. Selected Topics in Special Education (1-4)

Specialized study of selected topics in special education. May be offered as either a workshop or lecture/discussion. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

SPED 600. Classroom Adaptations for Special Populations (2)

Prerequisite: Preliminary multiple or single subject credential.

Strategies for adapting curriculum, differentiating instruction, meeting social and behavioral needs. Modifying assessments for students with disabilities and students with gifts and talents in general education classrooms. Applicable to Induction Program for the California Professional Clear Credential.

SPED 605. Advanced Behavioral and Health Supports (1)

Prerequisite: Admission to clear credential or M.A. program in special education or related area.

Advanced approaches to dealing with behavioral crises and health issues in classroom, to include working with mental health specialists and school nurses.

SPED 635. Assessment: Early Childhood Special Education and Moderate/Severe Disabilities (3)

Prerequisite: Admission to credential program.

Models of assessment emphasizing observation and interviewing, performance-based approaches, transdisciplinary teaming, family-professional collaboration, and adaptations for specific disabilities, cultural, and linguistic diversity. Communicating and using assessment data for individualized program planning.

SPED 643. Educational Programs and Services for Young Children with Disabilities (3)

Prerequisites: Admission to credential program and concurrent registration in approved fieldwork.

Developing, implementing, and evaluating educational programs and services for young children with disabilities. Selecting and adapting curriculum and instructional approaches, collaborating with families from diverse cultural/linguistic backgrounds, and monitoring program effectiveness. Both Special Education 643A and 643B required. Maximum credit six units.

A. Preschoolers

B. Infants/Toddlers

SPED 644. Working with Gifted and Talented Students and Their Families (3)

Research-based instructional strategies to promote higher level and creative thinking; counseling approaches; services to families; issues in differentiating learning experiences.

SPED 645. Issues in Curriculum and Instruction for Students with Severe Handicaps (3)

Prerequisite: Special Education 525.

Design and implementation issues of instructional programs for students with severe handicaps; approaches which foster school and community integration and active family involvement will be analyzed.

SPED 647. Special Education Adaptations of Basic Skills Instruction (3)

Prerequisites: Admission to credential program and concurrent registration in Special Education 970.

Adaptations in curriculum and instruction in language development, reading, language arts, and mathematics for students with disabilities. Current research and practices related to linguistic, cultural, and ability differences.

SPED 648. Advanced Special Education Adaptations (3)

Prerequisites: Special Education 647 and concurrent registration in Special Education 980.

Advanced adaptations in curriculum and instruction in content areas, study skills, organizational strategies, and social and transition skills. English-as-a-second language approaches for students with disabilities. Research and practices related to linguistic, cultural, and ability differences.

SPED 649. Curriculum Models for Students Who Are Gifted and Talented (3)

Prerequisite: Credit or concurrent registration in Special Education 644.

Theory, research, and practice in curriculum design and program implementation for developing high potential.

SPED 650. Special Topics in Special Education (1-4)

Prerequisites: Special Education 500, 501.

Instructional sequences (mini-courses) 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. Maximum credit of six units applicable to a master's degree.

A. Consultant Skills/Multidisciplinary Teams

SPED 651. Legislation, Leadership, and Management for Special Education Services (3)

Prerequisite: Admission to clear credential or M.A. program in special education or related area.

Implementation of laws, regulations, and compliance requirements in special education. Leadership approaches for managing school related services within a multidisciplinary context.

SPED 653. Advanced Instruction, Collaboration, and Consultation in Special Education (3)

Prerequisite: Admission to clear credential or M.A. program in special education or related area.

Advanced instruction, collaboration, consultation skills, and strategies for working with students, teachers, paraprofessionals, school personnel, other service providers, parents, and representatives from the community.

SPED 657. Facilitating Transition Across Environments in Special Education (3)

Facilitating transition for individuals with disabilities across activities, instructors, and settings including transition to employment. Instructional planning, assessment, and transition from school to work including postsecondary education.

SPED 662. Collaboration, Legislation, and Educational Planning in Special Education (3)

Prerequisites: Admission to credential program and credit or concurrent registration in Special Education 980.

Collaboration, legislation, and individualized special education program planning skills for working with school personnel, parents, and community resources. Listening and questioning techniques, interpersonal processes, family systems, conflict resolution, decision-making, team functions, goals, objectives, outcomes, legal and ethical issues.

SPED 676. Advanced Applied Behavior Analysis (3)

Prerequisite: Special Education 553.

Ethical application of research-based strategies based on behavior analysis. Emphasis on arranging learning opportunities to increase student skills and data collection.

SPED 681. Advanced Studies in Special Education (3)

Prerequisite: Special Education 524 or 525 or 528.

Educational theories, philosophies, research findings, issues and trends in area of exceptionality. Application of research to solution of educational problems. May be taken in each area of exceptionality:

A. Mild/Moderate Disabilities

B. Autism, Early Childhood, and Moderate/Severe Disabilities

SPED 685. Single Case Research Design (3)

Prerequisite: Special Education 553.

Single-case research designs focused on interventions with individuals with disabilities.

SPED 696. Advanced Topics in Special Education (3)

Prerequisites: Twelve units in special education.

Intensive study in specific areas of special education. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

SPED 771. Directed Internship: Special Education (1-4) Cr/NC

Prerequisite: Permission of graduate adviser. Application to be made during previous semester.

Extensive daily participation or teaching in public schools and preparation for teaching of exceptional individuals. May be repeated with new content. Maximum credit six units applicable to a master's degree.



SPED 798. Special Study (1-6) Cr/NC/RP

Prerequisites: Consent of staff; to be arranged with department chair and instructor.

Individual study. May involve fieldwork. Maximum credit six units applicable to a master's degree.

CREDENTIAL COURSES

SPED 970. Practicum: Students with Disabilities in General and Special Education (2-4) Cr/NC

Fifteen hours of observation/participation per week.

Prerequisites: Special Education 502 and consent of credential adviser.

Participation in general and special education programs for students with disabilities; supervised by a special educator. Integration and application of skills and knowledge gained in credential coursework. May be repeated in other specialties. Maximum credit four units applicable to each credential program. May be taken only once for credit.

- A.** Mild/Moderate Disabilities
- B.** Moderate/Severe Disabilities

SPED 980. Advanced Practicum in Special Education (1-12) Cr/NC

Prerequisite: Consent of credential adviser.

Culminating practicum for Education Specialist Credential. Participation supervised by a special educator. May be repeated in other specialties.

- A.** Mild/Moderate Disabilities
- B.** Moderate/Severe Disabilities
- D.** ECSE: Infant/Preschool

SPED 985. Professional Development: Reflections on Practice (1) Cr/NC

Prerequisite: Completion or concurrent registration in Clear Professional Induction Specialist Credential coursework.

Professional Clear Induction Plans (PCIP); engage in reflective practice including goal setting; prepare portfolio with entries representing Clear Professional Induction Specialist Credential courses and experiences.

Teacher Education

IN THE COLLEGE OF EDUCATION

OFFICE: Education and Business Administration 255
TELEPHONE: 619-594-6131 / **FAX:** 619-594-7828
WEBSITE: <http://go.sdsu.edu/education/ste/>

Faculty

Alexander W. Chizhik, Ph.D., Professor of Teacher Education,
Interim Director of School
Nadine S. Bezuk, Ph.D., Professor of Teacher Education and
Associate Dean of the College of Education
Marva G. Cappello, Ph.D., Professor of Teacher Education
Ronald W. Evans, Ed.D., Professor of Teacher Education
Margaret A. Gallego, Ph.D. Professor of Teacher Education
Sharan A. Gibson, Ph.D., Professor of Teacher Education, Emeritus
Lisa L. Clement Lamb, Ph.D., Professor of Teacher Education
Valerie O. Pang, Ph.D., Professor of Teacher Education
Cynthia Darche Park, Ph.D., Professor of Teacher Education
Randolph A. Philipp, Ph.D., Professor of Teacher Education
André J. Branch, Ph.D., Associate Professor of Teacher Education
Estella W. Chizhik, Ph.D., Associate Professor of
Teacher Education
Luke S. Duesbery, Ph.D., Associate Professor of
Teacher Education
Donna L. Ross, Ph.D., Associate Professor of Teacher Education
Rafaela M. Santa Cruz, Ph.D., Associate Professor of Teacher
Education, Emeritus
Cristian R. Sterling Aquino, Ph.D., Associate Professor of
Teacher Education
Meredith E. Vaughn, Ph.D., Associate Professor of
Teacher Education
Katie Sciorba, Assistant Professor of Teacher Education
Melissa M. Soto, Ph.D., Assistant Professor of Teacher Education

Courses Acceptable for Master's Degree Programs in Education (TE)

*Refer to Courses and Curricula and Regulations of the Division
of Graduate Affairs sections of this bulletin for explanation of the
course numbering system, unit or credit hour, prerequisites, and
related information.*

UPPER DIVISION COURSES

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 530. Children's/Adolescents' Literature (3)

Survey of children's/adolescents' literature and its incorporation into the classroom curriculum.

TE 596. Topics in Teacher Education (1-3 or 6) RP*

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

*Specified sections.

GRADUATE COURSES

TE 600. Curriculum Development in Education (3)

Prerequisite: Consent of instructor.

Advanced study of the research in curriculum development, construction and evaluation.

TE 602A. Seminar: California Clear Teaching Credential (1) Cr/NC

Prerequisite: Preliminary multiple or single subject credential.

Develop professional growth plans designed to provide guidance for inquiry and action research. Applicable to Induction Program for the California Professional Clear Credential.

TE 602B. Seminar: Formative Assessment (3) Cr/NC

Prerequisites: Preliminary multiple or single subject credential and Teacher Education 602A.

Advanced professional development to meet the California Standards for the Teaching Profession. Summative assessment applying Plan, Instruct, Assess, Reflect, and Apply (PIARA). Applicable to Induction Program for the California Professional Clear Credential.

TE 605. Innovations in Instruction (1-3)

Prerequisite: Teaching experience.

Exploration of innovative instructional practice in the public and private schools, with emphasis on innovative teaching strategies. An evaluation of the motivational effect and structural validity of promising instructional practices. See *Class Schedule* for specific content. Maximum credit three units applicable to a master's degree.

TE 610C. Seminar in Science in Elementary Education (3)

Prerequisite: Consent of instructor.

Advanced study of the problems of teaching science in the elementary school with emphasis on the literature of science education.

TE 615. Teaching Critical Thinking Using Technology (3)

Prerequisite: Admission to Master of Arts in Teaching program.

Critical thinking and educational technology. Educating diverse learners.

TE 626. Advanced Educational Psychology (3)

Prerequisite: Teacher Education 923 or valid teaching credential.

Advanced study of the research in educational psychology and its application to learning and human growth.

TE 630. Seminar in Literacy and Language Arts (3)

Prerequisite: Education 690.

Trends in reading instruction to include developmental sequences in reading skills and abilities, reading in the content fields, individual differences and interests.

TE 631. Seminar in Language Arts (3)

Advanced study of problems in teaching language arts. The study of the scientific research and application in the field.

TE 633. Leadership in Literacy Education (3)

Prerequisite: Teacher Education 637.

Planning, presenting, and evaluating professional development activities in literacy education for teachers at the K-12 level.

TE 635. Assessment of Reading and Language Arts (3)

Prerequisites: Valid teaching credential; course in methods and materials for teaching reading.

Theoretical knowledge and practical skill in assessing reading and language arts using both formal and informal measures.

TE 637. Instructional Strategies for Reading and Language Arts (4)

Three lectures and two hours of activity.

Prerequisites: Valid teaching credential; course in methods, materials for teaching reading.

Supervised teaching experience utilizing instructional activities in individual and small group settings.

Teacher Education

TE 638. Topics in Reading Education (1-6)

Prerequisite: California Teaching Credential.

A variety of instructional sequences (mini-courses), each focusing on a single topic or competency dealing with reading instruction. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

TE 639. Literacy and Language (3)

Prerequisite: Teacher Education 930 or 933.

Theories of literacy and methods for developing literacy in language, reading and writing. Instructional methods and assessment techniques for children and adults.

TE 640. Planning for Teaching and Assessment in Writing (3)

Prerequisite: Teaching experience.

Comprehensive writing instruction in context of the interactive language arts. Development of plans for curriculum and instruction in diverse classrooms. Examination of multiple assessments and how they inform instruction in K-12 classrooms.

TE 651. History of Social Studies Reform (3)

Prerequisite: Graduate standing.

History and current status of social studies curricula in American schools, K-12. Emphasis on issues, controversies, competing philosophies, historical trends, and applications.

TE 652. Change in Education (3)

Prerequisite: Valid teaching credential.

Examination of the process of change in education, analysis of recent major changes and study of techniques for effecting change.

TE 655. Sociocultural Foundations of American Education (2 or 3)

Prerequisite: Admission to teacher education.

Historical and philosophical nature of American schools as it relates to equity, pedagogy, and curriculum. Issues of equity, race, culture, gender, ethnicity, sexual preference, and social issues as they impact the classroom.

TE 677. Research-Based Pedagogy for Diverse Learners (3)

Prerequisite: Admission to Master of Arts in Teaching program.

Research-based pedagogy for diverse learners. Instructional strategies applicable across disciplines.

TE 680. Foundations of Linked Learning (3)

(Offered only in the College of Extended Studies)

Prerequisite: Teaching credential.

Principles of linked learning and key components and instructional strategies that are part of the approach. Explore research on linked learning and examine key legislation that support linked learning and related high school improvement approaches.

TE 681. Linked Learning Pathway Design and Delivery (3)

(Offered only in the College of Extended Studies)

Prerequisite: Teaching credential.

Concepts and efforts for building high-quality linked learning pathways. Development of a pathway vision, mission, theme, and student learning outcomes. Effective instructional practices; interventions including academic, behavioral, and health supports; and college and career readiness.

TE 682. Integrated Curriculum Design, Implementation, and Assessment (3)

(Offered only in the College of Extended Studies)

Prerequisite: Teaching credential.

Planning, creating, and implementing integrated curriculum and assessment for linked learning environments, including defining quality integrated curriculum, best practices in problem-based learning, integration of career technical education, and work-based learning.

TE 683. Work-based Learning: Core Linked Learning Instructional Strategy (3)

(Offered only in the College of Extended Studies)

Prerequisite: Teaching credential.

Work-based learning, a key component and instructional strategy of the linked learning approach to high school improvement. Work-based learning and key features. Integrate authentic work-based learning experiences into courses and projects.

TE 684. Rethinking Teacher Roles in Linked Learning Pathways (3)

(Offered only in the College of Extended Studies)

Prerequisite: Teaching credential.

Key elements and principles associated with the linked learning field that are transforming the role of the teacher. How those roles affect pathway continuous improvement and achievement and success for all students.

TE 693. Measuring and Assessing Student Achievement in Schools (3)

Prerequisite: Admission to Master of Arts in Teaching program.

Development of assessments and tests common in instructional and research contexts. Uses and interpretation of assessment data in given differential social/political contexts. Implications for research and instruction.

TE 696. Selected Topics in Teacher Education (1-3)

Prerequisite: Valid teaching credential.

Intensive study in specific areas of teacher education. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

TE 709. Inclusive Education (3)

One lecture and four hours of activity.

Prerequisite: Graduate standing.

Research, theory, and practice of inclusive education to include examination of the politics of disability in the public schools and American society.

TE 779. Action Research in Learning Environments (3)

Prerequisites: Teacher Education 693 and successful completion of 24 units of Master of Arts in Teaching coursework.

Capstone course for Master of Arts in Teaching degree. Action research conducted in students' own teaching environments.

TE 790. Seminar in Teacher Education (3-6)

Prerequisite: Advancement to candidacy.

Intensive consideration of selected topics of current importance in teacher education. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. For collaborative induction programs with school districts: May be taken prior to advancement to candidacy for six units; up to 12 units applicable to a master's degree.

TE 798. Special Study (1-6) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. May involve fieldwork. Maximum credit six units applicable to a master's degree.

CREDENTIAL COURSES

TE 902. Classroom Management Skills (1-2)

Prerequisite: Provisional or complete admission to multiple subject credential program.

Skills in interpreting the legal aspects of education, identifying various kinds of school and classroom organization, and using instructional media and verbal stimuli to facilitate learning.

TE 903. Secondary School Student Teaching Seminar (1-2) Cr/NC

Prerequisites: Teacher Education 922, 933, 954, 963. To be taken concurrently with Teacher Education 964.

To plan and organize instruction in relation to all competencies acquired and to be implemented in an on-site, full-time student teaching assignment. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

TE 910A. Teaching Mathematics in the Elementary School (1-3)

Prerequisite: Admission to multiple subject credential program, education specialist credential program, or possession of a teaching credential.

Instructional methods for development of children's conceptual understanding, computational, and problem-solving skills in mathematics, including use and development of materials and programs.

TE 910B. Teaching Social Studies in the Elementary School (1-3)

Prerequisite: Admission to multiple subject credential program or possession of a teaching credential.

Developing curriculum, principles and materials of instruction, including instructional media and participation in elementary social studies education.

TE 910C. Teaching Science in the Elementary School (1-3)

Prerequisite: Admission to multiple subject credential program or possession of a teaching credential.

Developing research-based science curriculum, principles and materials of instruction, including instructional media and participation in elementary science education.

TE 914. Teaching and Learning in the Content Area: Major (3)

Prerequisite: Admission to teacher education credential program.

Teaching strategies in content specific fields of study taken concurrently with student teaching. May be repeated with new content. See *Class Schedule* for specific content.

TE 922. Behavioral and Psychological Aspects of Teaching (1-4)

Prerequisites: Admission to single subject credential program. To be taken concurrently with Teacher Education 954 and 963.

Teacher competencies as they relate to learning theories, adolescent growth, self-assessment, measurement and evaluation. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

TE 923. Psychological Foundations of Education (1-3)

Prerequisites: Psychology 101 and admission to multiple subject credential program.

Implementing learning process through interactive skills, using instructional principles to facilitate learning and changes in behavior and techniques used in assessing instruction and pupil growth.

TE 930. Teaching Reading and Language Arts in the Elementary School (1-6)

Prerequisite: Admission to multiple subject credential program, education specialist credential program, or possession of a teaching credential.

Selecting, designing, and evaluating appropriate learning experiences to assure children's growth in reading and language arts. Includes nature of reading and language arts as a human behavior, various approaches, materials, and techniques used in teaching reading and language arts. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

TE 933. Teaching of Reading in the Secondary School (3)

Teacher competencies as they relate to the teaching of reading/writing and diagnosing needs in the content areas. For students completing a credential at SDSU, this course must be taken concurrently with enrollment in first or second semester single subject credential program.

TE 954. Humanistic and Social Aspects of Teaching (1-4)

Prerequisites: Admission to single subject credential program and concurrent registration in Teacher Education 922 and 963.

Teacher competencies as they relate to values, awareness, self-concept, rights and responsibilities. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

TE 960. Basic Student Teaching Seminar (1-2) Cr/NC

Prerequisites: Admission to multiple subject credential program and concurrent registration in Teacher Education 965.

Discussion of immediate problems in student teaching with emphasis on children's growth and development.

TE 961. Advanced Student Teaching Seminar (1-2) Cr/NC

Prerequisites: Satisfactory completion of Teacher Education 960, 965; and concurrent registration in Teacher Education 966.

Discussion of immediate problems in student teaching with emphasis on the influence of philosophical, social and cultural factors on learning.

TE 963. Secondary School Student Teaching I (1-6) Cr/NC/RP

Prerequisites: Admission to single subject credential program. To be taken concurrently with Teacher Education 922 and 954. Teacher Education 933 is highly recommended to be taken at this time. Student must provide own transportation to student teaching site.

On-site, part-time experience to implement teacher competencies developed in Teacher Education 922 and 954. Maximum credit six units.

TE 964. Secondary School Student Teaching II (1-12) Cr/NC/RP

Prerequisites: Teacher Education 922, 933, 954, 963. To be taken concurrently with Teacher Education 903. Student must provide own transportation to student teaching site.

On-site, full-day experience to implement teacher competencies as developed from the total professional sequence. Maximum credit 12 units.

TE 965. Basic Student Teaching in Elementary Schools (1-12) Cr/NC/RP

Prerequisites: Admission to multiple subject credential program and concurrent registration in Teacher Education 960.

Day-to-day teaching experiences including selected instructional activities for which a teacher in a classroom is normally responsible.

TE 966. Advanced Student Teaching in Elementary Schools (1-12) Cr/NC/RP

Prerequisites: Satisfactory completion of Teacher Education 960, 965, and concurrent registration in Teacher Education 961.

Teaching experiences including all the instructional activities for which a teacher in a classroom is normally responsible.

TE 967. Elementary School Student Teaching (15) Cr/NC (Offered only at IVC)

Prerequisites: Admission to multiple subject credential program and concurrent registration in Teacher Education 960 and 961.

On-site, full-day teaching experiences. Two consecutive eight week assignments at two different broad levels of schooling. Each eight week assignment will provide typical responsibilities of teachers through a graduated series of experiences, such as class preparation, instruction of students, maintaining accurate student records, attending faculty meetings and parent conferences.

TE 968. Secondary School Student Teaching (15) Cr/NC (Offered only at IVC)

Prerequisites: Admission to single subject credential program and concurrent registration in Teacher Education 903.

On-site, full-day teaching experiences. Two consecutive eight week assignments in single subject content area; one in junior high school and one in senior high school. Each eight week assignment will provide typical responsibilities of teachers through a graduated series of experiences, such as class preparation, instruction of students, maintaining accurate student records, attending faculty meetings and parent conferences.

TE 969. Clinical Practice for Induction (4) Cr/NC

Prerequisite: Admission to College of Education induction program.

Mentor-supported field experience for novice teachers in fully-accredited K-12 schools. Practicing advanced teaching strategies. Assessment of teacher performance based on evidence of student learning and outcomes. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit 16 units.

Educational Technology

Refer to "Learning Design and Technology" in this section of the bulletin.

Electrical and Computer Engineering

Refer to "Engineering" in this section of the bulletin.

Engineering

IN THE COLLEGE OF ENGINEERING

OFFICE: Engineering 203
TELEPHONE: 619-594-6061
E-MAIL: info@engineering.sdsu.edu
WEBSITE: <http://www.engineering.sdsu.edu/>

Associateships

Graduate teaching associateships and graduate assistantships in engineering are available to a limited number of qualified students. Application forms and additional information may be secured from the chair of the appropriate department.

General Information

The College of Engineering offers graduate study leading to the Ph.D. degrees in engineering sciences (bioengineering; electrical and computer engineering; mechanical and aerospace engineering; structural engineering) and Master of Science degrees in bioengineering, aerospace, civil, electrical, and mechanical engineering. The Ph.D. degree programs are offered jointly with the University of California, San Diego. These curricula are designed to augment the student's undergraduate training by advanced study in one of the various fields of engineering. Recognizing the increasing importance in modern technology of the engineer-scientist team, San Diego State University has developed an academic program which offers to individuals holding a first degree in engineering, an opportunity to pursue advanced study in a specialized area of knowledge. The graduate degree may also prepare students for a teaching career.

Section I. Master's Degree Programs

Master of Science Degree

Admission to Graduate Study

All students must satisfy the general requirements for admission to the Division of Graduate Affairs with classified graduate standing as described in Part Two of this bulletin. Candidates for admission to aerospace engineering, civil engineering, electrical engineering and mechanical engineering programs must have attained a grade point average of at least 2.85 (where A equals 4) in the last 60 semester (90 quarter) units of technical study attempted in the undergraduate degree program. In addition, applicants must have a bachelor's degree in a field of engineering appropriate to the field in which they desire to earn an advanced degree or in a field closely related thereto from an institution acceptable to the College of Engineering and the Division of Graduate Affairs. If undergraduate preparation is deemed insufficient, the student will be required to take specified courses for the removal of the deficiency. Such courses may be in addition to the minimum of 30 units for the master's degree in engineering. Students graduating from foreign universities need a cumulative grade point average of 3.0 or better.

Students should contact their specific engineering department for GRE test requirements. Letters of recommendation for graduate study are helpful but optional.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the College of Engineering (refer to the appropriate department section for the address to submit additional information).

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

College of Engineering

The following materials should be mailed or delivered to the appropriate address listed in each department section:

1. Personal statement of graduate program goals;
2. Letters of recommendation (optional).

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degrees

In addition to meeting the requirements for classified graduate standing as stated above, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin. With the approval of the appropriate department, the student working toward the master of science degree may elect either Plan A, requiring a thesis and an oral defense, or Plan B, requiring a comprehensive written examination.

Students shall arrange their coursework, in conference with their graduate adviser, according to the following requirements for the specific degree.

Aerospace Engineering

(Major Code: 09021) (SIMS Code: 441001)

General information: The Department of Aerospace Engineering offers graduate study leading to the Master of Science degree in aerospace engineering.

Students are encouraged to engage in thesis research or special study projects. Available areas of research include experimental, theoretical and computational aerodynamics and fluid mechanics, structural analysis and design, composite materials and structures, fluid-structure interactions, structural dynamics, aeroelasticity, and aircraft and spacecraft stability and control.

The following materials should be mailed or delivered to:

Dr. Satchi Venkataraman, Graduate Adviser
Department of Aerospace Engineering
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1308

1. Personal statement of graduate program goals;
2. Letters of recommendation (optional).

Specific requirements for the degree: The student's program prepared in conference with and approved by the graduate adviser, must satisfy the following requirements:

1. Twenty-one units of 600-700 numbered courses in aerospace engineering. At least six units must be taken in the Aerospace Engineering specialization. At least one course must be taken outside the student's area of specialization.
2. Nine additional units of 500-, 600- and 700-numbered courses approved by the graduate adviser.

Areas of Specialization in Aerospace Engineering**1. Aerodynamics/Astronautics****(Major Code: 09021) (SIMS Code: 441003)**

A E 601	Computational Fluid Mechanics	3
A E 612	Compressible Fluid Flow	3
A E 620	Incompressible Aerodynamics	3
A E 644	Turbulent Flow	3

2. Structural Mechanics**(Major Code: 09021) (SIMS Code: 441070)**

A E 600	Seminar.....	1-3
A E 611	Vibration of Elastic Solids.....	3
A E 621	Theory of Elasticity.....	3
A E 641	Structural Optimization.....	3
A E 651	Theory of Elastic Stability.....	3
A E 731	Aeroelasticity.....	3

Bioengineering**(Major Code: 09051) (SIMS Code: 446001)**

General information: The College of Engineering offers graduate study leading to the Master of Science degree in bioengineering. The M.S. in bioengineering seeks to provide both an advanced degree for students to enter the biotechnology and medical device industries as well as preparation for further study in bioengineering or medicine. Current areas of specialization are biomechanics, biomaterials, and bioinstrumentation.

The following materials should be mailed or delivered to:

Bioengineering Graduate Adviser

College of Engineering, Room 326
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1323

1. Personal statement of graduate program goals;
2. Letters of recommendation (optional).

Specific requirements for the degree: The student's program will be prepared in conference with and approved by the bioengineering graduate adviser. Students take a "core" of courses required for their specialization, and additional courses and electives as listed below. Students without prerequisites for the required courses may need to take additional courses outside the 30 units needed for the degree. The student's program of study must satisfy the following requirements:

1. Students select a specialization in biomechanics, biomaterials, or bioinstrumentation in consultation with the bioengineering graduate adviser.
2. A total of 30 units, consisting of five required 500-, 600-, and 700- level core courses (15-16 units) corresponding to the specialization, 6-9 units of Research (M E 797/E E 797), Thesis (M E 799A/E E 799A), or Special Study (M E 798/E E 798), and electives selected from the list below.
3. A thesis project is required.
4. Demonstration of prior coursework equivalent to a core course will enable substitution of an elective chosen in consultation with the bioengineering graduate adviser.
5. At least 15 units of coursework (excluding 797, 798, 799 courses) must be from Engineering.
6. At least 12 units of coursework (excluding 797, 798, 799 courses) must be 600- or 700-level courses.

Core Courses:**Biomechanics****(Major Code: 09051) (SIMS Code: 446002)**

BIOL 590	Physiology of Human Systems.....	4
M E 580	Biomechanics.....	3
M E 610	Finite Element Methods in Mechanical Engineering.....	3
M E 681	Biomaterials	3
M E 685/		
E E 685	Micro-Electro-Mechanical Systems (MEMS) Design and Applications.....	3

Biomaterials**(Major Code: 09051) (SIMS Code: 446003)**

BIOL 585	Cellular and Molecular Immunology.....	3
M E 540	Nonmetallic Materials	3

M E 681	Biomaterials	3
M E 685/		
E E 685	Micro-Electro-Mechanical Systems (MEMS) Design and Applications.....	3

Bioinstrumentation**(Major Code: 09051) (SIMS Code: 446004)**

BIOL 590	Physiology of Human Systems.....	4
E E 503	Biomedical Instrumentation	3
M E 685/		
E E 685	Micro-Electro-Mechanical Systems (MEMS) Design and Applications.....	3
M E 580	Biomechanics.....	3

Electives:

A E 601	Computational Fluid Mechanics	3
A E 621	Theory of Elasticity.....	3
BIOL 585	Cellular and Molecular Immunology	3
BIOL 590	Physiology of Human Systems.....	4
BIOL 597A	Univariate Statistical Methods in Biology	3
CHEM 712	Chemical Kinetics	3
CHEM 751	Separations Science.....	3
E E 502	Electronic Devices for Rehabilitation	3
E E 503	Biomedical Instrumentation	3
ENS 610	Biomechanics: Measurement Techniques I-Kinematics	3
ENS 611	Biomechanics: Measurement Techniques II-Kinetics.....	3
ENS 612	Biomechanics: Measurement Techniques III-EMG.....	3
ENS 613	Motor Control and Rehabilitation Science.....	3
ENV E 554	Process Fundamentals of Environmental Systems	3
ENV E 648	Biological Processes and Bioremediation Engineering.....	3
M E 540	Nonmetallic Materials	3
M E 580	Biomechanics.....	3
M E 585	Fundamentals of Micro-Electro-Mechanical Systems (MEMS).....	3
M E 610	Finite Element Methods in Mechanical Engineering.....	3
M E 645	Mechanical Behavior of Engineering Materials.....	3
M E 656	Conduction Heat and Transfer.....	3
M E 681	Biomaterials	3
M E 683	Design of Medical Devices	3
PHYS 670A	Medical Physics I.....	3
PHYS 670B	Medical Physics II.....	3

B.S. in Mechanical Engineering and M.S. in Bioengineering BS/MS 4+1 Degree Program**(Major Code: 09051) (SIMS Code: 446005)**

Students must complete 158 units to be simultaneously awarded the Bachelor of Science degree in mechanical engineering and the Master of Science degree in bioengineering. Students can apply for admission to the BS/MS 4+1 degree program (B.S. in mechanical engineering and M.S. in bioengineering) when they have successfully completed a minimum of 90 units or a maximum of 115 units. These units must count towards one or the other of the two SDSU degree programs (BS or MS) that will ultimately be awarded in the dual degree program. All students must have a satisfactory score [minimum of 308 for combined verbal and quantitative on the Graduate Record Examination (GRE) General Test] and a minimum overall GPA of 3.0.

To satisfy the requirements for the BS/MS 4+1 degree program (B.S. in mechanical engineering and M.S. in bioengineering), students must achieve at least a 3.0 average in the 30 units of courses used to satisfy the graduate program of study. Of the 30 units, a maximum of nine units may be in 500-numbered mechanical engineering electives and all other program requirements must be satisfied. Three 500-level courses may be used to fulfill the elective requirements for the BS/MS 4+1 degree program at the same time as serving as prerequisite courses for graduate

Engineering

study. For the BS/MS 4+1 degree program (B.S. in mechanical engineering and M.S. in bioengineering), students must take M E 580 and 585 for the biomechanics specialization; M E 580, 540 or 543, and 585 for the biomaterials specialization. The bio-instrumentation specialization is not open to students in the BS/MS 4+1 degree program (B.S. in mechanical engineering and M.S. in bioengineering). Upon successful completion of the BS/MS 4+1 degree program, students will receive the B.S. degree in mechanical engineering with an emphasis in bioengineering and M.S. degree in bioengineering.

Civil Engineering

(Major Code: 09081) (SIMS Code: 442001)

General information: The Department of Civil, Construction, and Environmental Engineering offers graduate study leading to the Master of Science degree in civil engineering. Available areas of study include a concentration in environmental engineering and specializations in construction engineering, geotechnical engineering, structural engineering, transportation engineering, and water resources engineering. Programs of study may also include combinations of the above areas and related courses from other disciplines subject to the approval of the graduate adviser. Selected students in the program may be offered graduate teaching associateships. Experience as a graduate teaching associate can help prepare students for part-time or full-time teaching careers.

Applicants with a bachelor's degree in an approved non-engineering curriculum must make up the deficiencies in biology, calculus, chemistry, computer skills, differential equations, fluid mechanics and hydraulics, physics, statics and dynamics, statistics, and thermodynamics, as determined by the graduate adviser. The following materials should be mailed or delivered to:

Dr. Thais da Costa Alves, Graduate Adviser

Department of Civil, Construction, and Environmental Engineering
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1324

1. Personal statement of graduate program goals;
2. Letters of recommendation (optional).

Specific requirements for the degree: The student's program, prepared in conference with and approved by the graduate adviser, must satisfy the following requirements:

1. General requirements: 21 units of coursework.
 - a. A minimum of 12 units selected from one of the areas of specialization in civil engineering; in exceptional cases, this requirement may be waived at the discretion of the graduate adviser, provided the substitute course is in the College of Engineering and enhances a coherent program in a specific professional area.
 - b. Eighteen units of 600- and 700-level courses in civil engineering and/or construction engineering. No more than three units from courses numbered 797, 798, and 799 may be used to satisfy this requirement.
2. Culminating experience (nine additional units):
 - a. Thesis students: Three units of 797, three units of 798, and three units of 799A.
 - b. Non-thesis students: Six units of 500-, 600-, or 700-level courses and three units of 797 or 798 (additional units of 797 or 798 may be completed with approval of graduate adviser).
3. The total number of 500-, 600-, or 700-level units may not exceed 12 units outside the department.

Areas of Specialization in Civil Engineering

1. Construction Engineering

(Major Code: 09081) (SIMS Code: 442030)

CON E 650	Construction Labor Productivity.....	3
CON E 651	Project Production System Design in Construction.....	3
CON E 652	Construction Operations Modeling and Technology.....	3
CON E 654	Construction Claims	3
CON E 655	Project Design and Portfolio Management.....	3

2. Geotechnical Engineering

(Major Code: 09081) (SIMS Code: 442025)

CIV E 640	Advanced Soil Mechanics.....	3
CIV E 641	Advanced Foundation Engineering	3
CIV E 642	Groundwater Seepage and Earth Dams	3
CIV E 644	Soil Dynamics.....	3

3. Structural Engineering

(Major Code: 09081) (SIMS Code: 442075)

CIV E 605	Prestressed Concrete Structures.....	3
CIV E 607	Dynamics of Structures	3
CIV E 608	Earthquake Engineering	3
CIV E 610	Finite Element Analysis of Structures	3
CIV E 612	Advanced Concrete Materials	3

4. Transportation Engineering

(Major Code: 09081) (SIMS Code: 442085)

CIV E 620	Traffic Flow and Control.....	3
CIV E 621	Transportation Demand Analysis.....	3
CIV E 622	Mass Transit Engineering	3
CIV E 781	Seminar in Transportation Engineering.....	2 or 3

5. Water Resources Engineering

(Major Code: 09081) (SIMS Code: 442096)

CIV E 631	Spatial Hydrology (3	3
CIV E 632	Computational Hydraulics and Hydrology	3
CIV E 633	Environmental Hydrology.....	3
CIV E 634	Surface Water Hydrology	3
CIV E 638	Sedimentation Engineering.....	3

Concentration in Environmental Engineering

(Major Code: 09221) (SIMS Code: 442005)

Specific requirements for the concentration: The student's program, prepared in conference with and approved by the graduate and environmental engineering adviser, must satisfy the following requirements:

1. General requirements: 21 units of coursework.
 - a. Fifteen units selected from the required courses listed below; in exceptional cases, this requirement may be waived at the discretion of the graduate adviser, provided the substitute course is in the College of Engineering and enhances a coherent program in a specified professional area.
 - b. Eighteen units of 600- and 700-level courses in civil engineering and environmental engineering. No more than three units in Environmental Engineering 797 and no more than three units in Environmental Engineering 798.
2. Culminating experience (nine additional units):
 - a. Thesis students: Three units of Environmental Engineering 797, three units of Environmental Engineering 798, and three units of Environmental Engineering 799A.
 - b. Non-thesis students: Six units of 500-, 600-, or 700-level courses and three units of Environmental Engineering 797 or 798 (additional units of Environmental Engineering 797 or 798 may be completed with approval of graduate adviser).
3. The total number of 500-, 600-, or 700-level units may not exceed 12 units outside the department.

Required courses (15 units):

ENV E 554	Process Fundamentals of Environmental Systems	3
ENV E 645	Aquatic Chemistry for Environmental Engineers.....	3
ENV E 647	Physical and Chemical Processes of Water Pollution Control.....	3
ENV E 648	Biological Processes and Bioremediation Engineering.....	3

Prescribed Electives (six units):

ENV E 556	Air Pollution Engineering	3
ENV E 558	Solid and Hazardous Waste Engineering	3
ENV E 637	Process Design for Industrial and Hazardous Waste Treatment.....	3

ENV E 797	Independent Research.....	1-3 (Cr/NC/RP)
ENV E 798	Special Study.....	1-3 (Cr/NC/RP)
CIV E 631	Spatial Hydrology	3
CIV E 632	Computational Hydraulics and Hydrology	3
CIV E 633	Environmental Hydrology.....	3
CIV E 634	Surface Water Hydrology.....	3
CIV E 638	Sedimentation Engineering.....	3

Electives: Nine units selected in consultation with the graduate adviser:

A statistics course equivalent to Civil Engineering 160 and an introductory course in environmental engineering equivalent to Environmental Engineering 355 must be taken before or during the early stages of the program.

Electrical Engineering

(Major Code: 09091) (SIMS Code: 443001)

General information: The Department of Electrical and Computer Engineering offers graduate study leading to a Master of Science degree in Electrical Engineering. The program provides balanced opportunities to study practical engineering design and do research.

Specific requirements for the degree: Completion of 30 units of 500-, 600-, or 700-level courses to include Electrical Engineering 601 or 602 (depending on depth area selected, as directed by the graduate adviser) and one of two options: Plan A (Thesis) or Plan B (Project). Students cannot use more than 12 units of 500-level courses. Students are required to plan their program of study and have it approved by the graduate adviser to satisfy the depth and breadth course requirements.

1. Depth Requirement: Students are required to select their depth area and complete a specific set of approved courses. The depth areas include but are not limited to communication systems, computer networks, digital signal processing, electromagnetic systems, embedded systems, energy systems and controls, and VLSI systems.
2. Breadth Requirement: Students are required to complete a specific number of approved courses from areas other than the declared depth area.
3. Requirements for Plan A (Thesis): Students are required to take six units of Electrical Engineering 797 (Research) and three units of Electrical Engineering 799A (Thesis). The remaining 21 units can be taken from the selected depth area or from breadth courses, subject to the approval of the thesis adviser and graduate adviser. Credit for Electrical Engineering 797 will be given only after completing the thesis. Credit cannot be given for Electrical Engineering 798 for students in Plan A.
4. Requirements for Plan B (Project): Students are required to complete 18 units selected from a depth area to include a minimum of nine units of breadth courses and three units of Electrical Engineering 798. Students may enroll in the project course, Electrical Engineering 798, after completion of 21 units, but must do so in the semester immediately following completion of 27 units. The evaluation process of the project will be determined by the department and enforced by the graduate adviser.

For the availability of the courses, research areas, and other information related to the graduate program, refer to the Department of Electrical and Computer Engineering website at <http://electrical.sdsu.edu>.

Mechanical Engineering

(Major Code: 09101) (SIMS Code: 447001)

General information: The Department of Mechanical Engineering offers graduate study leading to the Master of Science degree in mechanical engineering.

Available opportunities for thesis research and special study projects include heat transfer, thermodynamics, fluid mechanics, mechanics of materials, vibration, controls, CAD/CAM and robotics, materials, optimization and bioengineering.

The following materials should be mailed or delivered to:

Mechanical Engineering Graduate Adviser

Department of Mechanical Engineering, Room 326
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1323

1. Personal statement of graduate program goals;
2. Letters of recommendation (optional).

Specific requirements for the degree: The student's program, prepared in conference with and approved by the graduate adviser, must satisfy the following requirements:

1. Twenty-one units of coursework:
 - a. Twelve units in one area of specialization (designated as Group A,B,C, or D), with no more than six units of 500-level courses.
 - b. Nine additional units of 500-, 600-, or 700-level courses (excluding M E 797, 798, 799A, 799B, 799C) selected in consultation with the graduate adviser.
 - c. At least 15 units of coursework (excluding M E 797, 798, 799A, 799B, 799C) from mechanical engineering.
2. Nine additional units:
 - a. Thesis students: Six units of M E 797 and three units of 799A or 799B (thesis).
 - b. Non-thesis students: Three units of M E 797 and six units of 500-, 600-, or 700-level courses from mechanical engineering.
3. The total number of units from 500-level courses should not exceed nine.

Group A: Design and Manufacturing

(Major Code: 09101) (SIMS Code: 447071)

M E 543	Powder-Based Manufacturing.....	3
M E 555	Energy and Thermal Systems Analysis and Design	3
M E 580	Biomechanics.....	3
M E 585	Fundamentals of Micro-Electro-Mechanical Systems (MEMS).....	3
M E 596	Advanced Mechanical Engineering Topics (related to Design and Manufacturing).....	3
M E 610	Finite Element Methods in Mechanical Engineering.....	3
M E 645	Mechanical Behavior of Engineering Materials.....	3
M E 646	Mechanics of Sintering.....	3
M E 683	Design of Medical Devices	3
M E 685/ E E 685	Micro-Electro-Mechanical Systems (MEMS) Design and Applications.....	3
M E 696	Advanced Topics in Mechanical Engineering (related to Design and Manufacturing).....	3
A E 621	Theory of Elasticity.....	3
A E 641	Structural Optimization.....	3

Group B: Dynamics and Control

(Major Code: 09101) (SIMS Code: 447072)

M E 520	Introduction to Mechanical Vibrations.....	3
M E 530	Automatic Control Systems	3
M E 596	Advanced Mechanical Engineering Topics (related to Dynamics and Control).....	3
M E 696	Advanced Topics in Mechanical Engineering (related to Dynamics and Control).....	3

Group C: Energy and Thermofluids

(Major Code: 09101) (SIMS Code: 447073)

M E 555	Energy and Thermal Systems Analysis and Design	3
M E 556	Solar Energy Conversion.....	3
M E 596	Advanced Mechanical Engineering Topics (related to Energy and Thermofluids).....	3
M E 651	Advanced Thermodynamics.....	3
M E 653	Combustion.....	3
M E 656	Conduction Heat and Transfer.....	3

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ME 657	Convection Heat Transfer	3
ME 658	Radiation Heat Transfer	3
ME 661	Gas Dynamics	3
ME 696	Advanced Topics in Mechanical Engineering (related to Energy and Thermofluids).....	3
AE 601	Computational Fluid Mechanics	3
AE 612	Compressible Fluid Flow	3
AE 644	Turbulent Flow	3

Group D: Materials and Mechanics

(Major Code: 09101) (SIMS Code: 447074)

ME 520	Introduction to Mechanical Vibrations	3
ME 540	Nonmetallic Materials	3
ME 543	Powder-Based Manufacturing	3
ME 580	Biomechanics	3
ME 596	Advanced Mechanical Engineering Topics (related to Materials and Mechanics).....	3
ME 610	Finite Element Methods in Mechanical Engineering	3
ME 645	Mechanical Behavior of Engineering Materials	3
ME 646	Mechanics of Sintering	3
ME 681	Biomaterials	3
ME 696	Advanced Topics in Mechanical Engineering (related to Materials and Mechanics).....	3
AE 621	Theory of Elasticity	3
AE 641	Structural Optimization	3

Mechanical Engineering

BS/MS 4+1 Degree Program (Major Code: 09101)

Students must complete 155 units to be simultaneously awarded the Bachelor of Science degree in mechanical engineering and the Master of Science degree in mechanical engineering. Students can apply for admission to the BS/MS 4+1 degree program when they have successfully completed a minimum of 90 units or a maximum of 115 units. These units must count towards one or the other of the two SDSU degree programs (BS or MS) that will ultimately be awarded in the dual degree program. All students must have a satisfactory score [minimum of 308 for combined verbal and quantitative on the Graduate Record Examination (GRE) General Test] and a minimum overall GPA of 3.0.

To satisfy the requirements for the BS/MS 4+1 degree program (B.S. and M.S. in mechanical engineering), students must achieve at least a 3.0 average in the 30 units of courses used to satisfy the graduate program of study. Of the 30 units, a maximum of nine units may be in 500-level mechanical engineering electives and all other program requirements must be satisfied. Three 500-level courses may be used to fulfill the elective requirements for the BS/MS 4+1 degree program (B.S. and M.S. in mechanical engineering) at the same time as serving as prerequisite courses for graduate study. The BS/MS 4+1 degree program (B.S. and M.S. in mechanical engineering) allows students to use any three 500-level mechanical engineering courses toward their graduate degree. Students in the BS/MS 4+1 degree program (B.S. and M.S. in mechanical engineering) must follow the thesis option. Upon successful completion of the BS/MS 4+1 degree program, students will receive the B.S. degree in mechanical engineering and M.S. degree in mechanical engineering.

Master of Engineering Degree

(Major Code: 09134) (SIMS Code: 444050)

General Information

The Master of Engineering degree is a practice-oriented, interdisciplinary degree designed to meet the needs of students who are interested in furthering a career in engineering with a business/management emphasis. The student will select his/her own program in consultation with the program adviser of the respective department subject to the guidelines listed below. In addition to the course requirements, the student is required to complete a design project and a final written report. This phase of the program introduces the student to the problems and solutions faced by practicing engineers. The program is designed for both the industrial professional who is seeking a career enhancement and also to the new baccalaureate graduate who wants to continue to study in order to be able to enter the work force with well-defined and honed professional skills.

This program is administered by the graduate adviser. The faculty responsible for directing this program are:

Dr. Janusz C. Supernak, Professor and Interim Chair, Department of Civil, Construction, and Environmental Engineering

Dr. Chunting Mi, Chair, Department of Electrical and Computer Engineering

Dr. John Abraham, Chair, Department of Mechanical Engineering

Dr. Ping Lu, Chair, Department of Aerospace Engineering

In addition to sending materials to Graduate Admissions, the following should also be mailed or delivered to:

Graduate Adviser

Master of Engineering Program
College of Engineering
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1326

1. Personal statement of graduate program goals;
2. Letters of recommendation (optional).

Admission to Graduate Study

All students must satisfy the general requirements for admission to the Division of Graduate Affairs with classified graduate standing as described in Part Two of this bulletin. Candidates must have attained an undergraduate grade point average of at least 2.85 (4 point scale) in the last 60 semester (90 quarter hours) of technical study. In addition, applicants must have a bachelor's degree in engineering or a closely related discipline. If undergraduate preparation is deemed insufficient, the student will be required to take specified undergraduate courses to remove this deficiency. Such courses may be in addition to the 36 units required. Admission to the program will be limited to applicants whose background, interest, and expertise are consistent with the demands of the design projects.

Specific Requirements for Master of Engineering Degree

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin. The student must also complete a graduate program of 36 units to include 18 units of graduate engineering courses, 12 units of graduate business courses, and six units of project registered under Engineering 798. The courses in engineering and business administration are selected in consultation with the graduate adviser. With the consent of the adviser, one unit of 798, with appropriate content, may be substituted for one unit in business administration. No more than a total of seven units of 798 will be accepted for credit towards the degree.

The industry-oriented design project is to be selected in cooperation with the graduate adviser in the area of interest. Typically, the students take this project at the end of the program of study as a culminating experience integrating engineering and business knowledge attained through coursework and experience. A formal written report of project findings will be submitted and approved by a committee of two engineering faculty members and one faculty member from business administration.

Section II. Doctoral Programs

WEBSITE: http://www.engineering.sdsu.edu/engineering/joint_doctoral_program.aspx

Engineering Sciences

(Bioengineering)

(Major Code: 09051) (SIMS Code: 446006)

(Electrical and Computer Engineering)

(Major Code: 09095) (SIMS Code: 443050)

(Mechanical and Aerospace Engineering)

(Major Code: 19020) (SIMS Code: 444021)

(Structural Engineering)

(Major Code: 09084) (SIMS Code: 442501)

The cooperating faculties of the College of Engineering at San Diego State University and the Jacobs School of Engineering at the University of California, San Diego offers joint doctoral programs in bioengineering, electrical and computer engineering, mechanical and aerospace engineering, and structural engineering. The Doctor of Philosophy degree is awarded jointly by the Trustees of the California State University and the Regents of the University of California in the names of both cooperating institutions.

The Ph.D. degree is a research degree and represents both attainment of advanced knowledge and demonstration of research skills. It is not awarded solely for the fulfillment of technical requirements such as academic residence and coursework. A typical student with an appropriate bachelor of science degree in engineering may complete the joint program in five to six years of full-time study and research. A student with advanced standing may complete the program in a shorter period of time.

The joint Doctor of Philosophy degree allows research specialties in the following: bioengineering (molecular biomechanics and cell/tissue engineering with a focus in cell-matrix engineering); electrical and computer engineering (communication theory and systems; computer engineering; electronic circuits and systems; intelligence systems, robotics and control; photonics; and signal and image processing); mechanical and aerospace engineering (applied mechanics, materials science, materials processing, computational fluid mechanics, combustion, experimental fluid mechanics); structural engineering (finite element methods in structural analysis, soil mechanics).

Program Administration

San Diego State University:

Program Director: Eugene A. Olevsky

University of California, San Diego:

Program Director: Enrique Luco

Financial Support

Students admitted to the program will be eligible for teaching associateships and graduate assistantships. It is the policy of SDSU College of Engineering to support doctoral students during their entire tenure as long as they are in good standing, are making satisfactory progress toward their degree, and are in residence at one of the two institutions.

For further information, the student should write to the director of the Engineering Sciences Joint Doctoral Program at the College of Engineering, San Diego State University, San Diego, CA 92182-1326.

Program

Preparation for Admission

Applicants must have an acceptable bachelor's degree or master's degree and must meet the requirements for admission to both SDSU and UCSD. A minimum grade point average of 3.0 in the major field for students with the B.S. degree or 3.5 for students with the M.S. degree is required. Students are expected to have engineering degrees in the classical engineering sciences/applied mechanics areas (i.e. aerospace, chemical, civil, environmental, mechanical). Students with degrees in one of the allied fields (i.e., physics, mathematics, and engineering physics) will be

required to remove any academic deficiencies by completing a series of courses normally required of the students who have academic degrees in the applied mechanics areas.

APPLICATIONS FOR THE PH.D. PROGRAM IN ENGINEERING SCIENCES MUST BE RECEIVED NO LATER THAN FEBRUARY 15.

Application

The faculty of the joint doctoral program on each campus will recommend admission of acceptable applicants to the graduate deans at SDSU and UCSD. Entry occurs when the student is formally accepted by both graduate deans and the student is officially notified of the acceptance.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the College of Engineering.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
1. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 2. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

College of Engineering

The following materials should be mailed or delivered to:

Director, Engineering Joint Doctoral Program

College of Engineering
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1326

1. Three letters of recommendation.

Residency Requirements

The student must spend at least one academic year in full-time residence at each of the two institutions. The definition of such residence must be in accord with the regulations of the Divisions of Graduate Affairs of SDSU and UCSD.

Advising Committee

When a student is admitted to the joint doctoral program, the director of the joint doctoral programs in engineering at UCSD and the director of the joint doctoral programs in engineering at SDSU will appoint a three-member advising committee consisting of at least one member from each institution. It is the responsibility of this committee to develop in consultation with the student a course of study and a plan of preparation for the doctoral qualifying examination, which should be taken as soon as possible after the two years of study at the two institutions. Students with advanced standing may be capable of taking the examination earlier. Upon the student's successful completion of the examination, the advising committee will recommend to the director of the joint doctoral program at UCSD and the director of the joint doctoral program at SDSU, the membership of the student's doctoral committee. Upon appointment, this committee will supersede the advising committee and be responsible for the student's program of study and dissertation research.

Course Requirements

The Doctor of Philosophy degrees in engineering sciences (bioengineering; electrical and computer engineering; mechanical and aerospace engineering; structural engineering) are

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research degrees and represent both attainment of advanced knowledge and demonstration of research skills. Therefore, no specific course requirements for the joint doctoral programs exist; however, the doctoral qualifying examination is based on a certain level of competence in the general areas of each degree. Preparation for the examination is normally done through coursework in these areas.

Qualifying Examinations

Joint Qualifying Committee

The doctoral program qualifying examination is administered by the student's advising committee supplemented, if appropriate, by faculty appointed by the director of the joint doctoral programs in engineering at UCSD and the director of the joint doctoral programs in engineering at SDSU. The examination will be oral and will be at the level and content of the SDSU and UCSD graduate courses. The specific areas will be approved in advance by the director of the joint doctoral programs in engineering at UCSD and the director of the joint doctoral programs in engineering at SDSU. One of the areas may be satisfied by completing a series of courses in the area with at least a B grade in each course.

Joint Doctoral Committee

Upon successful completion of the doctoral qualifying examination, a doctoral committee shall be appointed by the graduate deans of SDSU and UCSD upon the recommendation of the director of the joint doctoral programs in engineering at UCSD and the director of the joint doctoral program in engineering at SDSU. The doctoral committee shall supervise the continued study and research programs of the student. The chair of the committee is the primary adviser of the student's dissertation research. The dissertation committee will consist of three members from each institution; one of the three will be from outside of the respective UCSD department and one from outside the student's major area.

Senate Qualifying Examination

The major requirement for the doctorate is the completion of a dissertation based on original research, which contributes new knowledge to the fields. The Senate Qualifying Examination consists of a presentation of initial dissertation results and plans for future research. The chair of the doctoral committee will determine in consultation with the student when the Senate Qualifying Examination will be held. Approval of a student's dissertation topic by the doctoral committee implies that the committee believes that the work will contain the potential for one or more articles publishable in refereed journals.

Dissertation

The doctoral committee will administer the final examination, which will consist of the student's presentation and defense of the dissertation, with particular emphasis on the principal findings and areas of future research. The first part of this examination is open to the public; a concluding portion involves appropriate questioning of the student by the committee.

The detailed requirements concerning the preparation of the dissertation, the number of copies, the editorial style, etc., are set forth in the UCSD document entitled "Instructions for the Preparation and Submission of Doctoral Dissertations and Masters' Theses." Acceptance of the dissertation by the University Librarian at UCSD and the Division of Graduate Affairs at SDSU represents the final step in completion of the student's degree requirements.

Satisfactory Progress

The students admitted to this program are expected to make continuous, satisfactory progress and to remain in good standing at both institutions.

Award of the Degree

The Doctor of Philosophy degrees in engineering sciences/applied mechanics, bioengineering, electrical and computer engineering, and structural engineering will be awarded jointly by the Trustees of the California State University and the Regents of the University of California in the names of both cooperating institutions.

Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral programs in engineering and are available for direction of research and as members of joint doctoral committees.

San Diego State University:

Program Director: Eugene A. Olevsky

Committee Members, Mechanical and Aerospace Engineering:

L. Demasi, G. Jacobs, J. Katz, X. Liu, A. Plotkin, S. Venkataraman (Aerospace Engineering), J. Abraham, A. Beyene, S. Bhattacharjee, K.A. Hamed, S. Kassegne, P. Katira, R. Kline, K. May-Newman, F. Miller, K. Moon, K. Morsi, P. Naseradinmousavi, E. Olevsky, W. Xu, G. Youssef (Mechanical Engineering).

Committee Members, Bioengineering: S. Kassegne, P. Katira, K. May-Newman.

Committee Members, Electrical and Computer Engineering:

A. Ashrafi, E. Engin, M. Gupta, f. harris, K. Huang, S. Kumar, C. Mi, S. Nagaraj, Y. Ozturk, M. Sarkar, S. Seshagiri, S. Sharma, A. Szeto, L. Tummala

Committee Members, Structural Engineering:

Z. Bayasi, L. Demasi, R. Dowell, T. Garoma, G. Jacobs, J. Katz, A. Plotkin, V. Ponce, J. Valdes, S. Venkataraman.

University of California, San Diego:

Program Director: Enrique Luco

Committee Members, Mechanical and Aerospace Engineering:

R. Bitmead, J. Goddard, S. Krashennikov, X. Markenscoff, J. McKittrick, M. Meyers, C. Pozrikidis, J. Talbot, F. Williams (Mechanical and Aerospace Engineering).

Committee Members, Bioengineering: J. Hasty, M. Heller, A. McCulloch, R. Sah, J. Watson.

Committee Members, Electrical and Computer Engineering:

P. Asbeck, P. Cosman, R. Cruz, T. Javidi, L. Larson, B. Rao, G. Rebeiz, C. Schurgers, P. Yu.

Committee Members, Structural Engineering: S. Ashford, D. Benson, T. Hutchinson, J. Kosmatka, Q. Zhu.

Section III. Certificate Program

Rehabilitation Technology Certificate

(SIMS Code: 444070)

The purpose of this certificate is to train interested engineers and non-engineers in the field of rehabilitation technology using formal classroom instruction, project design and fabrication, and internship. Enrollment in this certificate program will provide interested engineering students exposure to rehabilitation technology. For non-engineering rehabilitation professionals (e.g. vocational rehabilitation counselors, special education teachers, transition and supported employment specialists), the certificate program will provide specialty training in the application of rehabilitation technology. Specifically, the certificate program will do the following:

1. Expose graduate engineering students to the problems and promises of rehabilitation engineering as a field of specialization.
2. Provide a number of interrelated training activities that will improve the professional competence of employed rehabilitation workers.
3. Provide opportunities for extensive training, in the form of extended internships with knowledgeable rehabilitation professionals whose backgrounds are in such specializations as biomechanics, physical and occupational therapy, prosthetics and orthotics, rehabilitation counseling, rehabilitation electronics, rehabilitation engineering, special education, speech, language, and hearing sciences, etc.
4. Offer both formal classroom instruction and guided problem solving opportunities in designing, building, customizing, and delivering rehabilitation technology for enhancing the integration of individuals with disabilities into school, residential, community, and employment settings.

This is an advanced trans-disciplinary academic certificate at the postbaccalaureate level. Admission requirements include a bachelor's degree in engineering, rehabilitation, or special

education, or a related allied health field. Students admitted into the program must maintain a minimum grade point average of 3.0 in all certificate coursework with no less than a grade of C in all courses. Depending on the background and work experience, students may be required to remove deficiencies through additional coursework as part of the certificate requirements.

Students in the certificate program will complete 12 units of formal coursework and one semester of internships as described below unless alternative courses are approved by the program advisers.

Electrical Engineering 502 (Electronic Devices for Rehabilitation - 3 units) will acquaint students with the design and application of electronic devices used in rehabilitation; explain the problems of the disabled; and present possible solutions for some of their needs. This is a non-traditional and practical electrical engineering course that requires student involvement in the collaborative assessment (with students in Speech, Language, and Hearing Sciences 676) of disabled persons for their cognitive, communicative, and physical abilities at the SDSU Communications Clinic.

Administration, Rehabilitation and Postsecondary Education 607 (Applications of Rehabilitation Technology - 3 units) will provide an overview of assistive technology in the areas of assessment, accessibility, mobility, communication, employment, and more. Students will collaborate on transdisciplinary teams to design and construct an adaptation or modification which will enable a person with disabilities to participate more fully in school, work and/or community environments.

Administration, Rehabilitation and Postsecondary Education 685A or 685B (Medical and Psychological Aspects of Disability - 3 units) will cover the impact of different disabilities (e.g. visual and sensory impairments, orthopedic impairments, burns, amputation, chronic pain, cancer, developmental and learning disabilities, traumatic brain injuries, and spinal cord injuries) in terms of functional limitations, rehabilitative services needed, and environmental adjustments required.

Electrical Engineering 798 (Special Study in Rehabilitation Technology Design - 3 units) will provide students hands-on opportunities to work with rehabilitation professionals, occupational and physical therapists, and other non-engineers on technology teams in the design and fabrication of customized adaptations for persons with disabilities.

Internships (one semester) will provide guided field experience through placement with knowledgeable practicing rehabilitation professionals in settings as the Sharp Rehabilitation Center, Assistive Device Assessment Program within the SDSU Communications Clinic-Alvarado, Access Center of San Diego, and San Diego schools.

For application and additional information, contact the program adviser Dr. Andrew Szeto in the Department of Electrical and Computer Engineering or Dr. Caren L. Sax in the Department of Administration, Rehabilitation and Postsecondary Education.

Courses Acceptable for Master's and Doctoral Degree Programs in Engineering (ENGR)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

NOTE: In addition to the courses listed below, a number of other graduate level courses are acceptable for the doctoral degree. For a description of these courses, see individual department listings (e.g., aerospace, civil, construction, and environmental, or mechanical), and contact the director of the doctoral program.

ENGR 795. Internship/Practicum (1) Cr/NC

Prerequisites: Twenty-seven units of graduate level coursework in the Master of Engineering program and consent of graduate adviser.

Supervised internship or practicum experience with approval of graduate adviser. Not applicable to an advanced degree. Maximum credit three units.

ENGR 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of instructor.

Research in engineering. Maximum credit six units applicable to a master's degree.

ENGR 798. Special Study (1-6) Cr/NC/RP

Prerequisites: Graduate standing and consent of Associate Dean of College of Engineering.

Individual study. Maximum credit six units applicable to Master of Engineering degree.

ENGR 799A. Project (3) Cr/NC/RP

Prerequisites: An officially appointed project committee and advancement to candidacy.

Preparation of a project for the master's degree.

ENGR 799B. Project Extension (0) Cr/NC

Prerequisite: Prior registration in Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed project is granted final approval.

ENGR 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree.

DOCTORAL COURSES

ENGR 800. Seminar (1) Cr/NC

Prerequisite: Admission to the doctoral program.

Doctoral students are expected to attend a weekly seminar dealing with current topics in different areas of applied mechanics. Course is to be taken every semester.

ENGR 810. Colloquium in Engineering Sciences (1) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Discussions on advances in research in engineering science/applied mechanics conducted by SDSU and UCSD faculty.

ENGR 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent research in general areas of applied mechanics. Content to be determined after consultation with adviser.

ENGR 898. Doctoral Special Study (1-3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Individual study leading to study and research required for doctoral dissertation.

ENGR 899. Doctoral Dissertation (3-15) Cr/NC/RP

Prerequisites: An officially constituted joint doctoral committee and successful completion of Senate Qualifying Examination.

Final research and preparation of dissertation for doctoral degree. Enrollment required during term in which dissertation is approved.

Aerospace Engineering

IN THE COLLEGE OF ENGINEERING

OFFICE: Engineering 308

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WEBSITE: <http://aerospace.sdsu.edu>

Chair of Department: Ping Lu, Ph.D.

Faculty

Luciano Demasi, Ph.D., Professor of Aerospace Engineering

Gustaaf B. Jacobs, Ph.D., Professor of Aerospace Engineering

Joseph Katz, D.Sc., Professor of Aerospace Engineering

Balbir S. Narang, Ph.D., Professor of Aerospace Engineering

Allen Plotkin, Ph.D., Professor of Aerospace Engineering

Satchi Venkataraman, Ph.D., Professor of Aerospace Engineering
(Graduate Adviser)

Xiaofeng Liu, Ph.D., Assistant Professor of Aerospace Engineering

Courses Acceptable for Master's Degree Program in Aerospace Engineering (A E)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

A E 510. Finite Element Methods in Aerospace Structures (3)

Prerequisite: Aerospace Engineering 410.

Static and dynamic analysis of aerospace structures utilizing finite element methods. (Formerly numbered Engineering Mechanics 510.)

A E 515. Methods of Analysis (3)

Prerequisite: Aerospace Engineering 280 with minimum grade of C.

Selected topics from vector calculus, partial differential equations, and complex analysis, with engineering applications. (Formerly numbered Engineering 510.)

A E 520. Spacecraft Attitude Dynamics and Control (3)

Prerequisite: Aerospace Engineering 320 or graduate standing. Spacecraft rigid-body attitude dynamics and feedback control.

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 535. Mechanics of Composite Structures (3) (Same course as Mechanical Engineering 535)

Prerequisites: Aerospace Engineering 280 and Aerospace Engineering 310 or Mechanical Engineering 314.

Micro- and macro-mechanics of composite materials, classical lamination theory, initial failure prediction and progressive failure analysis of laminates, analysis of beam and plate structures, stiffness and strength based design of composites. Not open to students with credit in Mechanical Engineering 540. (Formerly numbered Engineering Mechanics 530.)

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 546. Aerospace Guidance and Navigation (3)

Prerequisite: Aerospace Engineering 320 with a grade of C (2.0) or better or graduate standing.

Principles and theories of navigation for aerospace vehicles. Aerospace guidance for entry vehicles, launch vehicles, missiles, and spacecraft. Classical and advanced guidance designs.

A E 550. Viscous Flow (3)

Prerequisites: Aerospace Engineering 340 and credit or concurrent registration in Aerospace Engineering 515.

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. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit of six units for any combination of Aerospace Engineering 496, 499, and 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

A E 600. Seminar (1-3)

Prerequisites: Consent of the graduate adviser and instructor.

Intensive study of one of the following topics: Nonlinear vibrations, random vibrations, continuum mechanics, anisotropic elasticity, energy methods, plasticity, and other areas of engineering mechanics. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. (Formerly numbered Engineering Mechanics 600.)

A E 601. Computational Fluid Mechanics (3)

Prerequisites: Credit or concurrent registration in Aerospace Engineering 302 and Aerospace Engineering 515.

Finite difference method of solving general fluid mechanics problems. Study of stability, convergence, compatibility, dissipation, and dispersion. A project is required.

A E 611. Vibration of Elastic Solids (3)

Prerequisites: Aerospace Engineering 410 or Mechanical Engineering 520, and Aerospace Engineering 515.

Vibrational characteristics of elastic media. Vibration of plates. Longitudinal and transverse wave motion in infinite, semi-infinite and finite thickness media. (Formerly numbered Engineering Mechanics 611.)

A E 612. Compressible Fluid Flow (3)

Prerequisites: Aerospace Engineering 302 and credit or concurrent registration in Aerospace Engineering 515.

Theory of flow at supersonic speeds. Linearized theory, three-dimensional wings in steady flight, slender-body theory, methods of characteristics.

A E 620. Incompressible Aerodynamics (3)

Prerequisites: Aerospace Engineering 301 and Aerospace Engineering 515.

Theory of incompressible aerodynamics; airfoil and wing theory; computational methods.

A E 621. Theory of Elasticity (3)

Prerequisites: Civil Engineering 301 (or Mechanical Engineering 304) and credit or concurrent registration in Aerospace Engineering 515.

Analysis of stress and strain: stress-strain relations; the equations of elasticity; uniqueness theorem; compatibility conditions; flexure and torsion. (Formerly numbered Engineering Mechanics 621.)

A E 631. Analysis of Elastic Plates (3)

Prerequisites: Aerospace Engineering 310 and 515.

Elasticity, energy principles, variational methods, classical theory, bending, and vibration of rectangular plates with various boundary conditions, shear deformation plate theories.

A E 641. Structural Optimization (3)

Prerequisites: Aerospace Engineering 310 and 510.

Analytical and numerical methods for structural optimization. Optimization problem formulation; optimization using calculus of variations; linear programming; nonlinear optimization; global optimization; generalized optimality criteria and dual methods; sensitivity analysis; multilevel and decomposition techniques; shape and topology optimization. (Formerly numbered Engineering Mechanics 641.)

A E 644. Turbulent Flow (3)

Prerequisites: Aerospace Engineering 515 and 550.

Nature of turbulence based on simple flow observations and a theoretical basis for interpreting and predicting the behaviors of specialized turbulent flow problems.

A E 651. Theory of Elastic Stability (3)

Prerequisites: Aerospace Engineering 310 and graduate standing in aerospace engineering.

Stability of elastic systems. Differential equations of stability by summation of forces and moments, and by the variational method. Applications. (Formerly numbered Aerospace Engineering 727 and Engineering Mechanics 727.)

A E 670. Optimal Control (3)

Prerequisite: Aerospace Engineering 320, Electrical Engineering 420, or Mechanical Engineering 330.

Applications in aerospace engineering to include Hamilton-Jacobi-Bellman equation, maximum principle, optimal control of dynamic systems, and parameter optimization. Fuel-optimal, linear quadratic optimal control, and time-optimal problems.

A E 696. Advanced Topics in Aerospace Engineering (1-3)

Advanced topics in aerospace structural mechanics and design to include non-linear elasticity, plasticity, analysis of plates and shells, fracture mechanics, thermal stress analysis, fatigue analysis, non-linear aeroelasticity, advanced topics in finite element methods, structural optimization and reliability analysis. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

A E 731. Aeroelasticity (3)

Prerequisites: Aerospace Engineering 611 and 620.

Fluid-structure interaction and its static and dynamic effects on airplanes. Unsteady aerodynamics, static aeroelastic instability (divergence), aileron reversal, sweep effects, doublet lattice method, dynamic aeroelastic instability (flutter), computational dynamic aeroelasticity using NASTRAN. (Formerly numbered Engineering Mechanics 731.)

A E 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Research in engineering. Maximum credit six units applicable to a master's degree.

A E 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit three units applicable to a master's degree.

A E 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

A E 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

A E 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Civil, Construction, and Environmental Engineering

IN THE COLLEGE OF ENGINEERING

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Faculty

Janusz C. Supernak, Ph.D., Professor of Civil, Construction, and Environmental Engineering, The AGC Paul S. Roel Chair in Construction Engineering and Management, Interim Chair of Department

M. Ziad Bayasi, Ph.D., P.E., Professor of Civil, Construction, and Environmental Engineering

Fatih Buyuksonmez, Ph.D., P.E., Professor of Civil, Construction, and Environmental Engineering.

Temesgen Garoma Ararso, Ph.D., P.E., Professor of Civil, Construction, and Environmental Engineering, The Blasker Chair in Environmental Engineering

Victor M. Ponce, Ph.D., Professor of Civil, Construction, and Environmental Engineering

Julio R. Valdes, Ph.D., Professor of Civil, Construction, and Environmental Engineering [Senate Distinguished Professor]

Thais da Costa Alves, Ph.D., Associate Professor of Civil, Construction, and Environmental Engineering (Graduate Adviser)

Robert K. Dowell, Ph.D., P.E., Associate Professor of Civil, Construction, and Environmental Engineering

Panagiotis Mitropoulos, Ph.D., P.E., Associate Professor of Civil, Construction, and Environmental Engineering

Natalie Mladenov, Ph.D., Associate Professor of Civil, Construction, and Environmental Engineering, The William E. Leonhard, Jr. Chair in Civil, Construction, and Environmental Engineering

Sahar Ghanipoor Machiani, Ph.D., Assistant Professor of Civil, Construction, and Environmental Engineering

Alicia M. Kinoshita, Ph.D., Assistant Professor of Civil, Construction, and Environmental Engineering

Matthew E. Verbyla, Ph.D., Assistant Professor of Civil, Construction, and Environmental Engineering

The Associated General Contractors (AGC) Paul S. Roel Chair in Construction Engineering and Management

The AGC Paul S. Roel Chair in Construction Engineering and Management is funded with an endowment established by generous gifts from members of the Associated General Contractors in San Diego Chapter. Recognizing the need for expert construction professionals, the local construction community has invested considerable resources in this new degree program. In particular, the endowment is funded by a significant gift from Roel Construction, in honor of Paul S. Roel, the son of the company's founder and the man responsible for moving the family business to San Diego in 1959. Interim Chair, Dr. Janusz C. Supernak, has extensive construction site experience.

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 current appointee to the Chair, Dr. Temesgen Garoma Ararso, is an accomplished scholar with teaching and research emphasis on renewable energy, resource recovery, and water and wastewater treatment.

The William E. Leonhard, Jr. Chair in Civil, Construction, and Environmental Engineering

The William E. Leonhard, Jr. Chair in Civil, Construction, 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 current chair, Dr. Natalie Mladenov, promotes excellence in undergraduate education, research in environmental engineering, and conducts scholarly activities on the topic of water quality in environmental engineering.

Courses Acceptable for Master's Degree Programs in Civil, Construction and Environmental Engineering (CIV E) (CON E) (ENV E)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin 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.

Civil Engineering (CIV E) UPPER DIVISION COURSES

CIV E 521. Structural Analysis II (3)

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 523. Design of Light Framed Structures (3)

Prerequisite: Civil Engineering 321.

Material properties for wood and metal studs. Loads and structural forces for buildings. Design of beams, columns, bearing stud walls. Seismic forces and lateral force resisting systems. Roof, floor, and shear wall design. Composite beams.

CIV E 525. Design of Steel Structures (3)

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)

Prerequisite: Civil Engineering 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)

Two lectures and three hours of laboratory.

Prerequisite: Civil Engineering 444.

Principles of open channel flow. Analysis and problems of critical, uniform, gradually-varied, and rapidly-varied flows. Flow over weirs and spillways. Bridge, culvert and multiple openings hydraulics and modeling. Channel transitions. Design and environmental problems. Workshops on river analysis system (HEC-RAS 4.0).

CIV E 531. Pipe Flow and Water Distribution Systems (3)

Prerequisite: Civil Engineering 444.

Principles of pressurized pipe flow. Estimation and management of water demand and water supply systems. Analysis of network distribution elements and network modeling. Design of distribution systems, their operation and maintenance, asset management, and financial appraisal.

CIV E 545. Field Methods in Hydrology (3)

Two lectures and two hours of laboratory.

Prerequisites: Civil Engineering 220 and 445 with a grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript

Equipment, field methods, and techniques used to study hydrologic systems and water resources, to include local streams and watersheds in California. Tools provided to design and implement field studies and interpret data.

CIV E 580. Traffic Engineering Design (3)

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)

Prerequisite: Consent of instructor.

Modern developments in civil engineering. May be repeated with new content. 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Construction Engineering (CON E)**UPPER DIVISION COURSES****CON E 520. Environmentally Conscious Construction (3)**

Two lectures and three hours of laboratory.

Prerequisite: Construction Engineering 312 for construction engineering majors; Civil Engineering 444 for civil engineering majors; concurrent registration in Civil Engineering 495 for environmental engineering majors.

Design and design processes to target a sustainable structure. Construction practices associated with protection of environment. Application of industry standards for environmental and energy performance of buildings. Impacts on selection of methods, materials, and equipment for construction. Design of procurement and management systems to support environmentally conscious building. Commissioning and startup. (Formerly numbered Construction Engineering 420.)

CON E 590. Construction Management and Safety (3)

Prerequisites: Construction Engineering 330 and 401.

Management and control of critical project processes for construction projects. Definition, planning, and execution of projects based on plan, estimate, and bid documentation. Fundamentals of construction safety planning, design, and requirements. (Formerly numbered Construction Engineering 490.)

Environmental Engineering (ENV E)**UPPER DIVISION COURSES****ENV E 554. Process Fundamentals of Environmental Systems (3)**

Prerequisites: Environmental Engineering 355 with a grade of C (2.0) or better, Aerospace Engineering 340, Civil Engineering 444, and Mechanical Engineering 350.

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. Sustainable Water and Sanitation Systems (3)

Two lectures and two hours of technical activity and laboratory.

Prerequisite: Environmental Engineering 355.

Design and selection of technologies for water delivery, reuse, sanitation, and treatment in developed and developing communities.

ENV E 556. Air Pollution Engineering (3)

Prerequisites: Senior standing and 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)

Prerequisites: Senior standing and Environmental Engineering 355.

Municipal solid and hazardous solid wastes from an environmental engineering perspective, including waste minimization and recycling. Engineered volume reduction through composting, incineration, mechanical compaction, and other methods. Ultimate disposal, landfill design and legislative regulations.

ENV E 596. Advanced Environmental Engineering Topics (1-3)

Prerequisite: Consent of instructor.

Modern developments in environmental engineering. May be repeated with new content. 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Civil Engineering (CIV E)**GRADUATE COURSES****CIV E 605. Prestressed Concrete Structures (3)**

Prerequisite: Civil Engineering 421 with minimum grade of C.

Fundamental concepts of prestressed concrete theory. Design applications to various types of structures.

CIV E 607. Dynamics of Structures (3)

Prerequisite: Civil Engineering 521 with minimum grade of C.

Dynamic disturbances, structures with variable degelastic beams; continuous beams, rigid frames, floor systems. Energy methods in structural dynamics.

CIV E 608. Earthquake Engineering (3)

Prerequisite: Civil Engineering 607.

Elements of seismology. Methods of analysis for earthquake loads. Procedures and code provisions for the design of earthquake-resistant structures.

CIV E 610. Finite Element Analysis of Structures (3)

Prerequisite: Civil Engineering 321 with minimum grade of C.

General procedure, various types of finite elements; analysis and design of isotropic and orthotropic plates and shells, deep beams, and shear walls using finite element technique; use of digital computers for solutions. Application to civil engineering structures.

CIV E 612. Advanced Concrete Materials (3)

Two lectures and three hours of laboratory.

Prerequisite: Civil Engineering 421.

Microstructure and cracking behavior of concrete. Theory and application of high strength and fiber reinforced concrete. Concrete durability additives and fiber reinforced plastic reinforcement for concrete. Innovative applications of advanced concrete materials. Includes a laboratory project.

CIV E 620. Traffic Flow and Control (3)

Prerequisite: Civil Engineering 481 or City Planning 625, with minimum grade of C.

Advanced treatment of traffic flow and control issues. Highway capacity and traffic flow characteristics, traffic flow modeling, intersection control, freeway control systems, intelligent transportation systems.

CIV E 621. Transportation Demand Analysis (3)

Prerequisite: Civil Engineering 481 or City Planning 625, with minimum grade of C.

Travel demand modeling with emphasis on application to growing metropolitan areas; four-step travel demand forecasting; disaggregate, behavioral, and activity-based approaches; recent methodological developments; transportation-land use interactions.

CIV E 622. Mass Transit Engineering (3)

Prerequisite: Civil Engineering 481 or City Planning 625, with minimum grade of C.

Transit system characteristics, analysis of demand for transit services, transit system planning, scheduling, analysis and design.

CIV E 631. Spatial Hydrology (3)

Prerequisite: Civil Engineering 445 with a minimum grade of C or graduate standing.

Integration of spatial data analysis and hydrologic modeling. Quantification of spatially distributed hydrologic characteristics. Decomposition of drainage network systems to support quasi-distributed hydrologic modeling. Quantification of hydrologic impacts due to model resolution, altered land use conditions, and modeling techniques.

CIV E 632. Computational Hydraulics and Hydrology (3)

Prerequisites: Civil Engineering 445 and 530.

Computational methods applied to hydraulics and hydrology. Explicit and implicit schemes for solving hyperbolic problems. Method of characteristics. One- and two-dimensional nonsteady open channel flow simulation.

CIV E 633. Environmental Hydrology (3)

Prerequisites: Civil Engineering 445 and Environmental Engineering 355.

Hydrosphere function, hydroclimatology, hydrographic characteristics, desertification, hydroecology, salinity modeling and management, stream and lake restoration, and case studies.

CIV E 634. Surface Water Hydrology (3)

Prerequisite: Civil Engineering 445.

Hydrologic systems. Physical hydrology. Kinematic wave theory. Diffusion and dynamic wave theories. Watershed and stream channel routing. Hydrologic simulation.

CIV E 638. Sedimentation Engineering (3)

Prerequisite: Civil Engineering 444 with minimum grade of C.

Hydraulics of sediment transport; erosion and sedimentation problems; river mechanics and morphology; mathematical modeling of river hydraulics; sediment transport and river channel changes. Design and environmental problems; erosion control and river training.

CIV E 640. Advanced Soil Mechanics (3)

Prerequisites: Civil Engineering 462 and 463 with minimum grades of C.

Advanced theories of soil mechanics applied to geotechnical and environmental engineering. Classification of terrestrial and marine soils, compaction, consolidation, expansion, stress distribution, strength, permeability and seepage, site improvement, and remediation.

CIV E 641. Advanced Foundation Engineering (3)

Prerequisites: Civil Engineering 462 and 463 with minimum grades of C.

Advanced theories of soil bearing capacity, settlement, and stress distribution applied to design of shallow and deep foundations and earth retaining structures. Subsurface exploration and dewatering methods.

CIV E 642. Groundwater Seepage and Earth Dams (3)

Prerequisites: Civil Engineering 462 and 463 with minimum grades of C.

Groundwater seepage and contaminant transport in saturated and unsaturated soils. Flow nets for homogeneous and layered soils. Design and stability analysis of embankments and earth dams.

CIV E 644. Soil Dynamics (3)

Prerequisites: Civil Engineering 462 and 463 with a minimum grade of C.

Behavior of soil and soil-structure systems under dynamic loading. Applications include dynamic earth bearing capacity and pressure, soil spring constants for machine foundation design, liquefaction analysis, site response spectra, and seismic stability of slopes. Case histories discussed.

CIV E 696. Advanced Topics in Civil Engineering (2-3)

Intensive study in specific areas of civil engineering. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

CIV E 697. Traffic Signal Systems Operations and Control (3)

Prerequisite: Graduate standing.

State-of-the-art traffic signal system control to include advanced traffic control strategies, incorporation of surface street systems into Intelligent Transportation Systems (ITS), signal system design and operations, and traffic simulation techniques.

CIV E 730. Advanced Topics in Water Engineering (3)

Prerequisites: Civil Engineering 530 and consent of instructor.

Advanced treatment of several fields in water engineering to include time series analysis, hydromodification, and online hydrologic modeling.

CIV E 781. Seminar in Transportation Engineering (2-3)

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

An intensive study in transportation engineering. Maximum credit six units applicable to a master's degree.

CIV E 797. Independent Research (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Independent research in civil and environmental engineering. Maximum credit three units applicable to a master's degree.

CIV E 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit three units applicable to a master's degree.

CIV E 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

CIV E 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

CIV E 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Construction Engineering (CON E) GRADUATE COURSES

CON E 650. Construction Labor Productivity (3)

Prerequisites: Construction Engineering 301 and 401.

Definition of productivity measures and factors that affect productivity of construction labor. Quantification techniques of labor productivity in construction.

CON E 651. Project Production System Design in Construction (3)

Prerequisites: Construction Engineering 650 or Construction Engineering 310, 401, and 490.

Theory of project production system design. Relation to production management theories, productivity improvement techniques, data gathering techniques to support process evaluation. Civil design and construction operations but also applicable to other industries.

CON E 652. Construction Operations Modeling and Technology (3)

Prerequisites: Construction Engineering 310, 401, 651, and Civil Engineering 220.

Modeling and optimizing construction projects and constructed works. Abstraction of projects, process mapping, and activity quantification. Theories of queuing and batching. Numerico-physical modeling of construction operations in time and space. Systems integration.

CON E 653. Construction Scheduling (3)

Prerequisites: Construction Engineering 301 and 401.

Construction planning, scheduling and evaluation of planning techniques, labor, and equipment leveling, expecting cost and crashing, resource loading, what if scenarios, and use of scheduling in delay analysis.

CON E 654. Construction Claims (3)

Prerequisite: Construction Engineering 301.

Basic foundations construction claims process starting with an understanding of contractual basis for construction claims through final resolution of claims. Clauses that form the basis for claims; recognition of claims, communicating claims elements, pricing claims, and methods for resolving claims.

CON E 655. Project Design and Portfolio Management (3)

Prerequisites: Construction Engineering 651 or Civil Engineering 495; and Environmental Engineering 320 or 355.

Techniques for project selection, definition, design management and value generation, including consideration of ROI, feasibility, and portfolio diversification. Incorporation of life-cycle considerations into all levels of design, including concepts of sustainability. Owner, designer, and contractor perspectives.

Environmental Engineering (ENV E) GRADUATE COURSES

ENV E 637. Process Design for Industrial and Hazardous Waste Treatment (3)

Prerequisites: Environmental Engineering 647 and 648.

Process design of physical, chemical, and biological methods for treatment of hazardous and industrial waste.

ENV E 645. Aquatic Chemistry for Environmental Engineers (3)

Prerequisite: Classified graduate standing.

Chemistry of natural and polluted water. Process chemistry for water and wastewater treatment.

ENV E 646. Microbiological Principles of Environmental Engineering (3)

Prerequisite: Graduate standing.

Relationships and significance of microorganisms to organic matter decomposition, mineral transformations, and environmental quality. Applied study in natural (water, sediments, wetlands) and disturbed ecosystems (landfills, contaminated sediments, and groundwater).

ENV E 647. Physical and Chemical Processes of Water Pollution Control (3)

Prerequisites: Environmental Engineering 554 and 645.

Engineering principles and design of physical and chemical processes used in water and wastewater treatment.

ENV E 648. Biological Processes and Bioremediation Engineering (3)

Prerequisite: Environmental Engineering 554.

Engineering principles and design of biological processes used in wastewater and bioremediation treatment technologies.

ENV E 696. Advanced Topics in Environmental Engineering (2-3)

Intensive study in specific areas of environmental engineering. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ENV E 797. Independent Research (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Independent research in civil and environmental engineering. Maximum credit three units applicable to a master's degree.

ENV E 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit three units applicable to a master's degree.

ENV E 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ENV E 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

ENV E 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Electrical and Computer Engineering

IN THE COLLEGE OF ENGINEERING

OFFICE: Engineering 426

TELEPHONE: 619-594-7013

WEBSITE: <http://electrical.sdsu.edu>

Chair of Department: Chunting C. Mi, Ph.D.

Faculty

Madhu S. Gupta, Ph.D., Professor of Electrical and Computer Engineering, The Radio Frequency Communication Systems Industry Chair

Sunil Kumar, Ph.D., Professor of Electrical and Computer Engineering

Yusuf Ozturk, Ph.D., Professor of Electrical and Computer Engineering

Satish Kumar Sharma, Ph.D., Professor of Electrical and Computer Engineering

Amirhossein Alimohammad, Ph.D., Associate Professor of Electrical and Computer Engineering

Ashkan Ashrafi, Ph.D., Associate Professor of Electrical and Computer Engineering (Graduate Adviser)

Arif Ege Engin, Ph.D., Associate Professor of Electrical and Computer Engineering

Santosh V. Nagaraj, Ph.D., Associate Professor of Electrical and Computer Engineering

Mahasweta Sarkar, Ph.D., Associate Professor of Electrical and Computer Engineering

Sridhar Seshagiri, Ph.D., Associate Professor of Electrical and Computer Engineering

Baris Aksanli, Ph.D., Assistant Professor of Electrical and Computer Engineering

Ke Huang, Ph.D., Assistant Professor of Electrical and Computer Engineering

Huu Ngoc Duy Nguyen, Ph.D. Assistant Professor of Electrical and Computer Engineering

Reza Sabzehgar, Ph.D., Assistant Professor of Electrical and Computer Engineering

Ying-Khai Teh, Ph.D., Assistant Professor of Electrical and Computer Engineering

The Radio Frequency Communication Systems Industry Chair

The Radio Frequency (RF) Communication Systems Industry Chair was established in recognition of the pervasiveness and vital role of radio frequency and wireless communications in modern society, and the emergence of San Diego as the world's leading center of research and development in the field of telecommunications and wireless engineering. The chair is sustained through generous contributions of Cubic Corporation and other corporations engaged in wireless communication technology, in appreciation of contributions of students trained in the field at SDSU. The RF Communication Systems Industry Chair is intended to promote excellence in education of RF and microwave engineers, and encourage significant professional activities in the field. Dr. Madhu S. Gupta, the first occupant of the chair, maintains a major involvement in professional work in the discipline and has received international recognition from his professional peers as a distinguished educator and scholar in the field of RF and microwave engineering.

Courses Acceptable for Master's Degree Program in Electrical and Computer Engineering (E E) (COMPE)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Electrical Engineering (E E)

UPPER DIVISION COURSES

NOTE: Prerequisites will be enforced in all 500-level courses. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

All courses 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 with the exception of Electrical Engineering 210, Computer Engineering 160, Mathematics 150, 151, Physics 195, 196, which requires a grade of C or better.

E E 502. Electronic Devices for Rehabilitation (3)

Two lectures and three hours of laboratory.

Prerequisite: Electrical Engineering 330 with a grade of C- (1.7) or better.

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: Aerospace Engineering 280 with a grade of C- (1.7) or better; Electrical Engineering 410 and 430 (or for Mechanical Engineering majors, Electrical Engineering 204 and Mechanical Engineering 330).

Instrumentation systems to monitor, image, control, and record physiological functions.

E E 522. Digital Control Systems (3)

Prerequisite: Electrical Engineering 420.

Digital controls systems; design algorithms including analog-invariance methods, direct digital techniques, and non-parametric approaches such as fuzzy control, neural networks, and evolutionary systems; implementation considerations.

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.

Energy bands and charge carriers in semiconductors; generation, recombination, and transport of excess carriers; semiconductor junctions; unipolar and bipolar transistors; high-frequency, high-power, and optoelectronic devices; integrated circuits.

E E 540. Microwave Devices and Systems (3)

Prerequisite: Electrical Engineering 440. Recommended: Aerospace Engineering 515.

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.

Microwave measurement equipment, simulation tools for designing microwave components, vector network analyzer calibration, design and measurement of planar microwave components, and a design project.

E E 558. Digital Communications (3)

Prerequisite: Electrical Engineering 458.

Design of baseband digital communication systems; noise characterization, sampling, quantization, matched filter receivers, bit-error performance, inter-symbol interference, link budget analysis.

E E 581. Power System Dynamics (3)

Prerequisite: Electrical Engineering 480.

Three-phase faults, symmetrical components, unsymmetrical faults, protective relay operating principles, economic dispatch of thermal power generation units, power system controls, voltage and power stability.

E E 584. Power Electronics (3)

Prerequisites: Electrical Engineering 380 and 430 with a grade of C- (1.7) or better in each course.

Design and analysis of power electronic devices. Permanent-magnet and pulse-width modulation ac-to-ac converters, dc-to-ac inverters, power electronics applications, power semiconductor switches, and switch-mode power supplies. (Formerly numbered Electrical Engineering 484.)

E E 584L. Power Electronics Laboratory (3)

Prerequisite: Credit or concurrent registration in Electrical Engineering 584.

Experimental design of dc-dc converters (boost, buck, buck-boost), flyback and forward converters, voltage and current mode control design and implementation. Basic photovoltaics and maximum-power-point-tracking (MPPT) design and battery charge control using switched-mode dc-dc converters.

E E 596. Advanced Electrical Engineering Topics (1-3)

Prerequisite: Consent of instructor.

Modern developments in electrical engineering. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit of nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Electrical Engineering 596 and 696 applicable to a 30-unit master's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Computer Engineering (COMPE)**UPPER DIVISION COURSES**

NOTE: Prerequisites will be enforced in all 500-level courses. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

All courses 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 with the exception of Computer Engineering 160, Electrical Engineering 210, Mathematics 150, 151, Physics 195, 196, which requires a grade of C or better.

COMPE 560. Computer and Data Networks (3)

Prerequisites: Computer Engineering 271 and Electrical Engineering 410 with a grade of C- (1.7) or better in each course.

Wide area and local area networks, multi-layered protocols, telephone systems, modems, and network applications.

COMPE 561. Windows Database and Web Programming (3)

Prerequisite: Computer Engineering 361 with a grade of C- (1.7) or better.

Programming applications involving file systems, relational databases, Structured Query Language (SQL), ADO.NET, client-server architecture, multithreading sockets, web servers, web browsers, web services, ASP.NET, Hypertext Markup Language (HTML), and Extensible Markup Language (XML).

COMPE 565. Multimedia Communication Systems (3)

Prerequisite: Credit or concurrent registration in Computer Engineering 560.

Design and implementation of multimedia communication systems. Image compression, JPEG, VQ, cell-B standards. Video and audio compression standards, MPEG, MPEG-2, H.26X, G.72X. Data storage systems and multimedia requirements. Networking requirements and networks as multimedia carriers. Transport and network protocols for carrying multimedia over data networks. Multimedia system design, scheduling, congestion control, traffic shaping, buffer management.

COMPE 571. Embedded Operating Systems (3)

Prerequisites: Computer Engineering 260 with a grade of C- (1.7) or better. Computer Engineering 475.

Real-time kernel, basic kernel services, threading and synchronization, preemptive multithreading, mutexes, spin locks, critical sections, priority scheduling, interrupts, RTOS implementation, memory management, task management, intertask communications.

COMPE 572. VLSI Circuit Design (3)

Prerequisites: Computer Engineering 271 with a grade of C- (1.7) or better. 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)

Prerequisite: Consent of instructor.

Modern developments in computer engineering. May be repeated with new content. 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Electrical Engineering (E E)

GRADUATE COURSES

NOTE: All listed prerequisite courses or their equivalent for computer engineering and electrical engineering courses must be satisfied with a grade of C– or better.

E E 600. Seminar (1-3)

Prerequisite: Consent of instructor.

An intensive study in advance electrical engineering. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

E E 601. Linear System Theory and Design (3)

Prerequisite: Electrical Engineering 420.

State models and solutions of the state equations, stability, controllability and observability, realizability and minimal realizations, linear state and output feedback control, introduction to linear optimal control.

E E 602. Stochastic Signals and Systems (3)

Prerequisite: Electrical Engineering 410.

Random signals, correlation functions, power spectral densities, the Gaussian process, narrow band processes. Applications to communication systems.

E E 631. RF Electronic Circuits (3)

Prerequisites: Electrical Engineering 410, 430, 602.

Distinguishing characteristics of RF circuits; analysis of noise and nonlinearity in circuits; frequency-selective and impedance-matching networks. RF amplifiers, oscillators and frequency conversion circuits. Phase-locked loops and their applications.

E E 634. RF Circuit Design (3)

Prerequisite: Electrical Engineering 540.

RF component and circuit design in frequency domain and scattering parameter terms. Linear amplifiers, stability considerations, unilateralization, matching techniques, low-noise amplifiers, wide-band designs, power amplifiers, linearity considerations, oscillators, and mixers.

E E 641. RF Wireless Systems (3)

Prerequisites: Electrical Engineering 440, 558, 602.

Characteristics and performance measures of RF subsystem in wireless communication systems: wireless channel, antenna, modulators and demodulators, low-noise and power amplifiers, oscillators, ADC and DAC; receiver architectures, system-level design of RF front-end.

E E 645. Antennas and Propagation (3)

Prerequisite: Electrical Engineering 440.

Antenna radiation mechanism, antenna types, fundamental antenna parameters, microstrip patch antennas, theory and design of various array and wire antennas, antenna measurement techniques and radio wave propagation in different propagation environments to include mobile communications, multiple input multiple output (MIMO) communications, and satellite communications.

E E 650. Modern Communication Theory (3)

Prerequisites: Electrical Engineering 558 and 602.

Wireless digital communication; bandpass modulation and demodulation, multiple access techniques, broadband signaling techniques, spread spectrum techniques; applications include CDMA and OFDM.

E E 652. Principles and Applications of Information Theory (3)

Prerequisites: Electrical Engineering 558 and 602.

Information measure of data sources; Shannon's theorem and capacity of communication links; rate-distortion theory and performance of source codes.

E E 653. Coding Theory (3)

Prerequisite: Electrical Engineering 558.

Error control for digital information; arithmetic of Galois fields; block, cyclic, convolutional and turbo encoding and decoding; applications in digital communication and computer systems.

E E 654. Adaptive Algorithms (3)

Prerequisite: Electrical Engineering 450.

Adaptive DSP algorithms. Time varying, data dependent filters, adaptive predictors, cancelers, equalizers. LMS and RLS algorithms, tapped delay line, lattice, and decision feedback structures. Adaptive beam forming and beam steering.

E E 655. Modem Design (3)

Prerequisites: Electrical Engineering 450 and 558.

System level and DSP design of modems for wireless and wire-line communications. Study modems for QAM, OFDM, CDMA, and T-1 modulation.

E E 656. Multirate Signal Processing (3)

Prerequisite: Electrical Engineering 450.

DSP techniques for sample rate changes in digital filters. Decimation and interpolation, aliasing as a processing option in resampling filters. Applications in communication and entertainment media systems.

E E 657. Digital Image Processing (3)

Prerequisite: Electrical Engineering 450.

Theory of two-dimensional signals and systems, image transforms, image enhancement, restoration and compression, image analysis and computer vision.

E E 658. Advanced Digital Signal Processing (3)

Prerequisites: Electrical Engineering 450 and 602.

Advanced topics in FIR and IIR filter design. Quantization effects in digital filters. Sigma-delta modulation. Signal modeling. Parametric and non-parametric spectral estimation. Frequency estimation.

E E 660. High Speed Networks: Design Principles and Recent Advances (3)

Prerequisite: Computer Engineering 560.

Provides students with knowledge of recent developments in area of computer networks. Current research in high speed computer networks.

E E 662. Wireless Sensor Networks (3)

Prerequisite: Computer Engineering 560.

Sensor platforms, wireless channel characteristics, time synchronization, medium access control, topology control, routing protocols, localization, coverage and placement, detection and tracking, query processing.

E E 665. Multimedia Wireless Networks (3)

Prerequisite: Computer Engineering 565.

Multimedia source characteristics, compressed bitstreams, error resiliency, quality of service, cellular video telephony, multimedia QoS-aware WLAN, peer to peer networks, and multimedia broadcast multicast services.

E E 670. Digital ASIC Design (3)

Prerequisite: Computer Engineering 572.

High-performance and low-power digital application-specific integrated circuit (ASIC) chips.

E E 672. VLSI System Design (3)

Prerequisite: Computer Engineering 470.

VLSI systems at the architectural level for digital signal processing applications: feedforward and feedback systems, fixed-point and floating-point representations, folding, iteration bound, parallel architectures, pipelining, retiming, unfolding, wave and asynchronous pipelining.

E E 674. Signal and Power Integrity (3)

Prerequisites: Electrical Engineering 440 and Computer Engineering 572.

Interconnect and power distribution network design in very-large-scale integration systems packaging. High-speed transmission lines and crosstalk, macromodeling of interconnects. Switching noise, decoupling, numerical methodologies in power integrity design.

E E 685. Micro-Electro-Mechanical Systems (MEMS) Design and Applications (3)

(Same course as Mechanical Engineering 685)

Prerequisite: Mechanical Engineering 585.

Design and manufacturing technology for micro- and nano-scale devices. Topics include solid state transducers, microscale physics, biomedical microelectronics, microfluidics, biosensors, and hybrid integration of microfabrication technology. Emphasis on biomedical applications.

E E 740. Advanced Topics in Physical Electronics (1-3)

Prerequisites: Graduate level coursework in the area and consent of instructor.

Selected topics in electromagnetic fields and waves, optoelectronics, and semiconductor devices. May be repeated with new content and consent of graduate adviser. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

E E 795. Internship/Practicum (1) Cr/NC

Prerequisites: Eighteen units of graduate level coursework in electrical engineering and consent of adviser.

Supervised internship or practicum experience with approval of graduate adviser. Not applicable to an advanced degree. Maximum credit three units.

E E 797. Research (1-6) Cr/NC/RP

Prerequisites: Consent of department chair. Open only to students in Plan A Thesis.

Research in engineering. Maximum credit six units applicable to a master's degree for students in Plan A only.

E E 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of department chair.

Individual study. Maximum credit three units applicable to a master's degree for students in Plan B study.

E E 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

E E 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

E E 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required for all students taking the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Mechanical Engineering

IN THE COLLEGE OF ENGINEERING

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WEBSITE: <http://mechanical.sdsu.edu>

Chair of Department: John Abraham, Ph.D.

Faculty

Asfaw Beyene, Ph.D., Professor of Mechanical Engineering

Subrata Bhattacharjee, Ph.D., Professor of Mechanical Engineering

Samuel K. Kassegne, Ph.D., Professor of Mechanical Engineering (Bioengineering Graduate Adviser)

Karen D. May-Newman, Ph.D., Professor of Mechanical Engineering

Kee S. Moon, Ph.D., Professor of Mechanical Engineering

Khaled B. Morsi, Ph.D., Professor of Mechanical Engineering

Eugene A. Olevsky, Ph.D., Albert W. Johnson Distinguished Professor of Mechanical Engineering Associate Dean for Graduate Studies and Research of the College of Engineering, and Interim Dean of the College of Engineering

Fletcher J. Miller, Ph.D., Associate Professor of Mechanical Engineering (Mechanical Engineering Graduate Adviser)

Kaveh Akbari Hamed, Ph.D., Assistant Professor of Mechanical Engineering

Joaquin Camacho, Ph.D., Assistant Professor of Mechanical Engineering

Parag Katira, Ph.D., Assistant Professor of Mechanical Engineering

Peiman Naseradinmousavi, Ph.D., Assistant Professor of Mechanical Engineering

Wenwu Xu, Ph.D., Assistant Professor of Mechanical Engineering

George Youssef, Ph.D., Assistant Professor of Mechanical Engineering

Courses Acceptable for Master's Degree Program in Mechanical Engineering (M E)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NOTE: Proof of Completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript.

M E 520. Introduction to Mechanical Vibrations (3)

Prerequisites: Mechanical Engineering 304 (or Civil Engineering 301) and Mechanical Engineering 330.

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 330.

Dynamic characteristics of control components and systems. Stability and response of closed loop systems. Design of control systems.

M E 535. Mechanics of Composite Structures (3) (Same course as Aerospace Engineering 535)

Prerequisites: Aerospace Engineering 280 and Aerospace Engineering 310 or Mechanical Engineering 314.

Micro- and macro-mechanics of composite materials, classical lamination theory, initial failure prediction and progressive failure analysis of laminates, analysis of beam and plate structures, stiffness and strength based design of composites. Not open to students with credit in Mechanical Engineering 540.

M E 540. Nonmetallic Materials (3)

Prerequisites: Mechanical Engineering 314.

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. Not open to students with credit in Mechanical Engineering 535 [or Aerospace Engineering 535].

M E 543. Powder-Based Manufacturing (3)

Prerequisite: Mechanical Engineering 240.

Manufacturing of micro and nano-structured engineering components and composites starting with metal and/or ceramic powders. Powder production methods, characterization, powder shaping and compaction, sintering, hot consolidation, design considerations, and finishing operations.

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.

M E 555. Energy and 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.

M E 556. Solar Energy Conversion (3)

Prerequisites: Mechanical Engineering 351, 452, and Aerospace Engineering 340.

Application of thermodynamics, fluid mechanics and heat transfer to the thermal design of solar energy conversion systems. Computer simulations utilized.

M E 580. Biomechanics (3)

Prerequisites: Mechanical Engineering 304 (or Civil Engineering 301) and Aerospace Engineering 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.

M E 585. Fundamentals of Micro-Electro-Mechanical Systems (MEMS) (3)

One lecture and four hours of laboratory.

Prerequisites: For aerospace engineering majors: Mechanical Engineering 220 [or Aerospace Engineering 220], Electrical Engineering 204, and Mechanical Engineering 240. For electrical engineering majors: Electrical Engineering 330 and Mechanical Engineering 240. For mechanical engineering majors: Mechanical Engineering 240 and Mechanical Engineering 220 [or Aerospace Engineering 220].

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.

M E 596. Advanced Mechanical Engineering Topics (1-3)

Prerequisite: Consent of instructor.

Modern developments in mechanical engineering. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit of nine units for any combination of Mechanical Engineering 496, 499 and 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

M E 610. Finite Element Methods in Mechanical Engineering (3)

Prerequisite: Aerospace Engineering 280 with a grade of C or better.

Development of finite elements and an introduction to solution methods. Problems from various fields of study in mechanical engineering such as stress analysis, vibrations and heat transfer. Introduction to finite element programs such as NASTRAN.

M E 640. Nanomaterials (3)

Prerequisite: Mechanical Engineering 543.

Nanomaterials compared with conventional materials. Nanomaterials synthesis, characterization, properties, and applications.

M E 645. Mechanical Behavior of Engineering Materials (3)

Prerequisites: Mechanical Engineering 314 and 350.

Elastic and plastic deformation of monolithic engineering materials and composites. Dislocation theory and plasticity of crystalline solids. Linear elastic and elastic-plastic fracture mechanics. Failure analysis of engineering components. Design optimization based on materials and service environment variables.

M E 646. Mechanics of Sintering (3)

Prerequisite: Classified graduate standing.

Practical aspects and conceptual models and mechanisms associated with sintering of ceramic and metal powders.

M E 651. Advanced Thermodynamics (3)

Prerequisites: Aerospace Engineering 280 with a grade of C or better and Mechanical Engineering 351.

Advanced concepts of macroscopic thermodynamics are developed including entropy generation, irreversibility, effectiveness, exergy, and chemical exergy of fuels. Concepts applied to power and refrigeration cycles using computer software.

M E 653. Combustion (3)

Prerequisite: Mechanical Engineering 351.

Thermodynamics of combustion, chemical equilibrium, chemical kinetics, combustion of gaseous, liquid and solid fuels, and their application.

M E 656. Conduction Heat and Transfer (3)

Prerequisites: Mechanical Engineering 452 and Aerospace Engineering 515.

Conduction heat transfer analysis of multi-dimensional and transient processes using both classical analysis and numerical methods.

M E 657. Convection Heat Transfer (3)

Prerequisites: Mechanical Engineering 452 and Aerospace Engineering 515.

Convection heat transfer processes under laminar and turbulent conditions. Mass transfer. Scaling arguments, analytical and numerical modeling.

M E 658. Radiation Heat Transfer (3)

Prerequisites: Mechanical Engineering 452 and Aerospace Engineering 515.

Radiation heat transfer processes. Radiative properties of surfaces and gases. Absorption, emission, and scattering phenomena. Numerical modeling.

M E 661. Gas Dynamics (3)

Prerequisites: Mechanical Engineering 351 and Aerospace Engineering 515.

Thermodynamics of high velocity compressible fluid flow. Adiabatic and diabatic flow; shock phenomena; imperfect gases; multidimensional flow. Applications to the propulsive duct and turbomachinery.

M E 681. Biomaterials (3)

Prerequisites: Mechanical Engineering 240 and 580.

Structure and properties of metallic, ceramic, and polymer biomaterials. Chemical interaction with physiological environment. Thrombosis and hemostasis on synthetic surfaces. Sterilization and packaging. Ethics and regulatory approval process. Applications discussed in cardiovascular, pulmonary, renal, orthopedic and dental medicine.

M E 683. Design of Medical Devices (3)

Prerequisites: Mechanical Engineering 314 and 580.

Device design, including biomaterials, human factors engineering, reliability, and manufacturing. Topics relevant to industry reviewed include regulatory, documentation, quality, and legal.

M E 685. Micro-Electro-Mechanical Systems (MEMS) Design and Applications (3)

(Same course as Electrical Engineering 685)

Prerequisite: Mechanical Engineering 585.

Design and manufacturing technology for micro- and nano-scale devices. Topics include solid state transducers, microscale physics, biomedical microelectronics, microfluidics, biosensors, and hybrid integration of microfabrication technology. Emphasis on biomedical applications.

M E 696. Advanced Topics in Mechanical Engineering (2 or 3)

Intensive study in specific areas of mechanical engineering. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

M E 797. Research (1-3) Cr/NC/RP

Prerequisites: Consent of graduate adviser and advancement to candidacy.

Research in engineering. Maximum credit six units applicable to a master's degree.

M E 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser; to be arranged with department chair and instructor.

Individual study or internship. Maximum credit three units applicable to a master's degree.

M E 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

M E 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

M E 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

English

IN THE DEPARTMENT OF ENGLISH AND COMPARATIVE LITERATURE
IN THE COLLEGE OF ARTS AND LETTERS

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M.F.A. Program Director

Joanna Brooks, Ph.D., Professor of English and
Comparative Literature

Laurie Champion, Ph.D., Professor of English, Imperial Valley
Campus

Laurie D. Edson, Ph.D., Professor of English and
Comparative Literature

Peter C. Herman, Ph.D., Professor of English and
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Harold Jaffe, Ph.D., Professor of English

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Clare E. Colquitt, Ph.D., Associate Professor of English

Kathryn R. Farris, M.F.A., Associate Professor of English and
Comparative Literature

Yetta Howard, Ph.D., Associate Professor of English and
Comparative Literature

Jessica Pressman-Lupien, Ph.D., Associate Professor of English
and Comparative Literature

Phillip R. Serrato, Ph.D., Associate Professor of English and
Comparative Literature

Barry G. Stampfl, Ph.D., Associate Professor of English, Imperial
Valley Campus

Angel D. Matos, Ph.D., Assistant Professor of English

Associateships and Scholarships

Graduate teaching associateships and graduate assistantships are available to a limited number of qualified students. Teaching associates teaching English 100 and 200 must have completed Rhetoric and Writing Studies 609, attend Rhetoric and Writing Studies 796A during the first semester of their associateship, and have the consent of the RWS GTA program director. Applications and additional information are available from the graduate director and from the department office.

General Information

The Department of English and Comparative Literature offers graduate study leading to a Master of Arts in English and the Master of Fine Arts in creative writing. The M.A. student can choose one of five areas of specialization: American literature, British literature, children's literature, comparative literature, or rhetoric and writing. The M.A. is a 30-unit degree program particularly well-suited for students who anticipate further graduate work in a literature or rhetoric Ph.D. program or who intend to teach English in a community college or, after obtaining a credential, in a secondary school. The M.F.A. in creative writing is a 54-unit program which offers study in poetry or fiction with a balance between studio and academic, traditional and experimental, commercial and aesthetic approaches. The program has two stages – graduate seminars followed by intensive study with one or more professors in

tutorials and manuscript preparation. The M.F.A. is a professional program intended for full-time students who wish to receive a terminal degree in creative writing. Each year, in addition to the resident faculty, the department invites approximately twenty writers and editors to the campus for readings and residencies.

The department offers a wide range of courses and approaches to the study of literature and writing, many of which are outlined in English 600, Introduction to Graduate Study, required of all entering M.A. students. Faculty publications in literature and rhetoric are similarly diverse. They include major literary biographies, historical studies, critical analysis from various current perspectives, reviews of and interviews with contemporary writers, as well as a broad spectrum of original poetry and fiction. The department also sponsors the literary periodicals Fiction International, Poetry International, and The Pacific Review.

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of English and Comparative Literature.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Arts Degree in English

The following materials should be submitted by February 1 for the fall semester to:

Department of English and Comparative Literature

(Attention: M.A. Program)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-6020

1. Three letters of recommendation (in sealed and signed envelopes) from persons in a position to judge academic ability;
2. A 750-1000 word statement of purpose;
3. A 10-page writing sample from a previous literature course, preferably an analytical essay involving research.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of English and Comparative Literature.

Master of Fine Arts Degree in Creative Writing

The following materials should be submitted by February 1 for the fall semester to:

Department of English and Comparative Literature

(Attention: M.F.A. Program)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-6020

1. A sample of creative work (15 poems or 30 pages of prose) to enable the creative writing faculty to assess the candidate's suitability to pursue an M.F.A. in creative writing;
2. A 750-1000 word statement of purpose;
3. Three letters of recommendation.

Master of Arts Degree in English

Admission to the Degree Curriculum

Students will be admitted only in the fall semester. Submit applications by February 1.

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. Students may be admitted to the master's program in English in one of two categories:

1. **Classified Graduate Standing**
To be considered for admission, students must meet the following minimal requirements:
 - a. 24 units of upper division work in English. (Students choosing the comparative literature specialization may substitute foreign language literature or comparative literature courses.)
 - b. 2.85 overall on a 4.0 Grade Point Scale.
 - c. 3.0 grade point average in the English major. (Students choosing the comparative literature specialization must possess a 3.0 grade point average in either foreign language literature or comparative literature courses.)
 - d. The applicant normally must achieve a minimum score of 156 on the verbal section of the new Graduate Record Examination, and a minimum of 5.0 on the GRE analytical essay examination.
2. **Conditional Classified Graduate Standing**
 - a. Conditional acceptance may be granted if there is a deficiency in any of the above requirements. A student accepted conditionally must customarily achieve an average of 3.25 in nine units of English or comparative literature courses with no grade less than B– before proceeding to further study and is limited to 12 units. Any units taken above this quota will not count toward the 30 units for the master's degree in English.
 - b. English major unit deficiencies. Students who lack 24 units of credit in upper division courses in English or in foreign language literature or comparative literature courses will be considered for conditional standing if they meet the requirements of 2.85 overall and achieve a minimum score of 156 on the verbal section of the new Graduate Record Examination and a minimum of 5.0 on the GRE analytical essay examination. After the completion of 24 units for the undergraduate major, students will be considered for classified graduate standing if they meet the other requirements. Students choosing a comparative literature specialization may substitute 24 units of upper division coursework in foreign language literature or comparative literature courses for part of this requirement.

Advancement to Candidacy and Language Requirement

All students must satisfy the general requirements for advancement to candidacy, including the foreign language requirement, as stated in Part Four of this bulletin. Each candidate, with the approval of the graduate director, may fulfill the foreign language

requirement in one of several ways: (1) by passing a local examination administered by one of the university's foreign language departments, (2) by completing one three-unit upper division foreign language literature course with readings in the original language with a grade of C (2.0) or better, or (3) by passing an examination to be determined by the graduate adviser if the chosen language is one not taught in a department at San Diego State University.

Specific Requirements for the Master of Arts Degree

(Major Code: 15011) (SIMS Code: 112101)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a 30-unit program of study, approved by the department's director of graduate studies, with at least 27 units of 600- and 700-numbered courses. The major includes a specialization in one of five program areas: American literature, British literature, children's literature, comparative literature, or rhetoric and writing. Students specializing in literature may choose Plan A (thesis) or Plan B (portfolio assessment).

Specialization in American Literature

(Major Code: 15011) (SIMS Code: 112103)

Core Course (3 units):

ENGL 600 Introduction to Graduate Study.....3

American Literature Research Focus. With prior approval by the graduate adviser, a student will select nine units from the following:

ENGL 604A Seminar: Literary Period or Movement:
American Literature3

ENGL 606A Seminar: A Literary Type: American
Literature3

ENGL 625 Literature of the United States.....3

ENGL 700 Seminar: A Major Author or Authors.....3

ENGL 725 Seminar: Issues in Literature of the United
States.....3

(With the prior consent of the graduate adviser, English 798, with appropriate content, may be substituted for one of the above courses.)

Electives: Diversification in Literary and Writing Research.

With the approval of the graduate adviser, 15 units selected from other English and comparative literature departmental graduate offerings. At least six units of these elective units must be taken outside of specialization and from other specializations within the English M.A. program. A maximum of six units of courses acceptable for graduate credit in other departments (when appropriate) may be used toward satisfying this requirement.

Culminating Experience:

Plan A: (Thesis) – ENGL 799A (3 units)

Plan B: (Portfolio Assessment and Defense) – ENGL 790 or an additional three unit 700-level course in English with the approval of the graduate adviser.

Specialization in British Literature

(Major Code: 15011) (SIMS Code: 112104)

Core Course (3 units):

ENGL 600 Introduction to Graduate Study.....3

British Literature Research Focus. With prior approval by the graduate adviser, a student will select nine units from the following:

ENGL 604B Seminar: British Literary Period or
Movement.....3

ENGL 624 British Literature3

ENGL 700 Seminar: A Major Author or Authors.....3

ENGL 724 Seminar: Issues in British Literature3

(With the prior consent of the graduate adviser, English 798, with appropriate content, may be substituted for one of the above courses.)

Electives: Diversification in Literary and Writing Research.

With the approval of the graduate adviser, 15 units selected from other English and comparative literature departmental graduate offerings. At least six of these elective units must be taken outside

English

of specialization and from other specializations within the English M.A. program. A maximum of six units of courses acceptable for graduate credit in other departments (when appropriate) may be used toward satisfying this requirement.

Culminating Experience:

- Plan A: (Thesis) – ENGL 799A (3 units)
Plan B: (Portfolio Assessment and Defense) – ENGL 790 or an additional three unit 700-level course in English with the approval of the graduate adviser.

Specialization in Children's Literature

(Major Code: 15011) (SIMS Code: 112107)

Core Course (3 units):

ENGL 600 Introduction to Graduate Study.....3

Children's Literature Research Focus. With prior approval by the graduate adviser, a student will select nine units from the following:

- ENGL 604D Seminar: Children's Literature
Literary Period or Movement3
ENGL 606D Seminar: Children's Literature
Literary Type3
ENGL 700 Seminar: A Major Author or Authors3
ENGL 727 Seminar: Issues in Children's Literature.....3

(With the prior consent of the graduate adviser, English 798, with appropriate content, may be substituted for one of the above courses.)

Electives: Diversification in Literary and Writing Research. With the approval of the graduate adviser, 15 units selected from other English and comparative literature departmental graduate offerings. At least six of these elective units must be taken outside of specialization and from other specializations within the English M.A. program. A maximum of six units of courses acceptable for graduate credit in other departments (when appropriate) may be used toward satisfying this requirement.

Culminating Experience:

- Plan A: (Thesis) – ENGL 799A (3 units)
Plan B: (Portfolio Assessment and Defense) – ENGL 790 or an additional three unit 700-level course in English with the approval of the graduate adviser.

Specialization in Comparative Literature

(Major Code: 15011) (SIMS Code: 112115)

Core Course (3 units):

ENGL 600 Introduction to Graduate Study.....3

Comparative Literature Research Focus. With prior approval by the graduate adviser, a student will select nine units from the following:

Three units acceptable for graduate credit, in a foreign language literature read in the original language.

Six units from the following:

- ENGL 626 Comparative Literature.....3
ENGL 700 Seminar: A Major Author or Authors3
ENGL 726 Seminar: Issues in Comparative Literature.....3

(With the prior consent of the graduate adviser, English 798, with appropriate content, may be substituted for one of the above courses.)

Electives: Diversification in Literary and Writing Research. With the approval of the graduate adviser, 15 units selected from other English and comparative literature departmental graduate offerings. At least six of these elective units must be taken outside of specialization and from other specializations within the English M.A. program. A maximum of six units of courses acceptable for graduate credit in other departments (when appropriate) may be used toward satisfying this requirement.

Culminating Experience:

- Plan A: (Thesis) – ENGL 799A (3 units)
Plan B: (Portfolio Assessment and Defense) – ENGL 790 or an additional three unit 700-level course in English with the approval of the graduate adviser.

Specialization in Rhetoric and Writing

(Major Code: 15011) (SIMS Code: 112160)

Core Course (3 units):

ENGL 600 Introduction to Graduate Study (3)

Rhetoric and Writing Research Focus. With prior approval by the graduate adviser, a student will select nine units from the following:

- RWS 600 Reading and Writing Rhetorically.....3
RWS 601A History of Rhetoric I.....3
RWS 602 Modern Rhetoric and Composition Studies...3
RWS 640 Research Methods in Rhetoric and
Writing Studies.....3

Electives: Diversification in Literary and Writing Research.

With the approval of the graduate adviser, 15 units selected from other English and comparative literature departmental graduate offerings. At least six of these elective units must be taken outside of specialization and from other specializations within the English M.A. program. A maximum of six units of courses acceptable for graduate credit in other departments (when appropriate) may be used toward satisfying this requirement.

Culminating Experience:

- Plan A: (Thesis) – ENGL 799A (3 units)
Plan B: (Portfolio Assessment and Defense) – ENGL 790 or an additional three unit 700-level course in English with the approval of the graduate adviser.

Master of Fine Arts Degree in Creative Writing

Admission to the Degree Curriculum

STUDENTS WILL BE ADMITTED TO THE M.F.A. IN CREATIVE WRITING ONLY IN THE FALL SEMESTER AND COMPLETE APPLICATIONS MUST BE RECEIVED NO LATER THAN FEBRUARY 1.

In addition to meeting the general requirements for admission to San Diego State University with classified graduate standing, as described in Part Two of this bulletin, a student must satisfy the following requirements before being recommended for classified graduate standing.

The applicant must possess a baccalaureate degree in creative writing, or in English with a focus in creative writing, or an approved affiliated field, with a grade point average of not less than 3.0 overall in the last 60 units of study attempted, with a 3.25 undergraduate grade point average in the major, and a 3.5 average in those courses considered prerequisite for the M.F.A. focus the student elects.

If deficient, the applicant must complete undergraduate requirements commensurate with the proposed focus in the M.F.A. program.

The applicant normally must achieve a minimum score of 300 on the Graduate Record Examination, with a minimum of 156 on the verbal section.

Students who submit especially compelling samples of creative work, but who have not met certain criteria or who demonstrate deficiencies in undergraduate preparation or basic skill development may be granted conditional classified admission to the program. The graduate adviser shall specify the conditions for such admission with the proviso that any prerequisite coursework assigned must be completed with a minimum grade point average of 3.0 and no grade less than a B-.

A student holding an M.A. degree in English from San Diego State University, or any other acceptable accredited institution of higher learning, must formally apply for admission to the M.F.A. program. Applicants holding an M.A. or pursuing an M.F.A. may transfer up to 18 units of certified graduate credit from an accredited institution upon review and recommendation by the M.F.A. graduate adviser and the approval of the dean of the Division of Graduate Affairs. Students unable to satisfy the requirements for the M.F.A. degree will not automatically be considered for an M.A. degree.

Students already accepted into the M.F.A. program at San Diego State University who request a change of focus (poetry or fiction) at a later date will be required to notify the M.F.A. graduate adviser and reapply to the creative writing committee.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. Candidates for the M.F.A. degree must have completed a minimum of 34 units within their official program of study, including transfer credit, with a minimum grade point average of 3.25 and have no grade less than B-. Students will be permitted to repeat only one course to achieve these levels. After a student has filed an official program of study and advanced to candidacy, the student must enroll in English 797 and 799A if pursuing thesis option (Plan A) or must enroll in six units of manuscript preparation (English 791) if pursuing manuscript option (Plan B).

If the student chooses to pursue thesis option (English 797 and 799A) instead of enrolling in six units of manuscript preparation (English 791), the student is required to have the approval of the M.F.A. graduate adviser. The M.F.A. creative writing committee must have approved a thesis topic and must recommend the appointment of a thesis adviser from the student's area of focus (fiction or poetry). After advancement to candidacy, the student must enroll in and complete English 797 and 799A if pursuing Plan A or six units of English 791 if pursuing Plan B.

In addition, the M.F.A. graduate committee must have recommended appointment of a thesis adviser from the student's area of focus (poetry, fiction) and the creative writing committee must have approved a thesis topic. Applicants for advancement should submit a portfolio of their creative work to the creative writing committee for a recommendation for advancement. Aspects to be reviewed include artistic achievement, ability to function in situations that writers and teachers usually encounter, and demonstration of skills in the focus area.

After advancement to candidacy, a student must enroll in and complete a minimum of 24 units from the official program to include English 797 and 799A.

Specific Requirements for the Master of Fine Arts Degree in Creative Writing

(Major Code: 15071) (SIMS Code: 112121)

In addition to meeting the requirements for classified graduate standing, candidates for the M.F.A. in creative writing must complete a 54-unit graduate program, 39 of which must be in courses numbered 600 and above as follows:

1. **Creative Writing Research Focus.** Student to select one 24-unit research focus as follows:
 - a. Fiction
 - 18 units of ENGL 750F.
 - Six units in another genre of creative writing.
 - b. Poetry
 - 18 units of ENGL 750P.
 - Six units in another genre of creative writing.
2. **Literature Research.** An 18-unit literature research component divided as follows:
 - a. Three units selected from the following:
 - ENGL 630 Form and Theory of Poetry.....3
 - ENGL 631 Form and Theory of Fiction3
 - b. Nine units in American, British, or comparative literature, or an appropriate modern language literature selected with the approval of the M.F.A. adviser.
 - c. Six units selected from the following:
 - ENGL 700 Seminar: A Major Author or Authors.....3
 - ENGL 724 Seminar: Issues in British Literature3
 - ENGL 725 Seminar: Issues in Literature of the United States3
 - ENGL 726 Seminar: Issues in Comparative Literature.....3
 - ENGL 727 Seminar: Issues in Children's Literature.....3
 - ENGL 784 Seminar: Creative Non-Fiction.....3
 - ENGL 796 Internship3 (Cr/NC)

OR

ENGL 798 Special Study (3) Cr/NC/RP with consent of instructor.

3. Six units of electives selected with consent of adviser.
4. **Thesis.** Six units in preparation of the thesis; a book-length creative work. Select A. Thesis or B. Manuscript:
 - a. Thesis
 - ENGL 797 Thesis Research.....3
 - ENGL 799A Thesis..... 3 (Cr/NC/RP)
 - b. Manuscript
 - ENGL 791A Seminar in MFA Manuscript: Poetry.....3
 - ENGL 791B Seminar in MFA Manuscript: Fiction.....3

Advanced Certificate in Children's/Adolescent Literature

(SIMS Code: 112109)

The Department of English and Comparative Literature offers an Advanced Certificate in Children's/Adolescent Literature for those who may already have M.A. or Ph.D.s in other fields, for those who wish to undertake a shorter schedule of study than required for the M.A., for those wishing to update their knowledge (parents, teachers, librarians), and for postbaccalaureate students interested in children's and adolescent books. Teachers and other professionals will use the certificate for advancement in employment; other students will find it to be an excellent professional entree or upgrade in publishing, editing, writing, or selling children's books.

A 3.0 grade point average is required of matriculated students. Non-matriculated students' applications will be reviewed for relevant and sufficient preparation.

The advanced certificate requires 12 units selected from English 604D, 606D, 700, 727, and three to six units of the 12 units selected from English 501, 502, 503. Units taken to complete the advanced certificate may be applied to an M.A. degree in English or Comparative Literature with approval of the graduate adviser. Contact the director of the children's literature program for additional information.

Courses Acceptable for the Master's Degree Programs in Creative Writing and English (ENGL) (C LT)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

English (ENGL)

UPPER DIVISION COURSES

ENGL 501. Literature for Children (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Critical analysis of literature intended for children. Study of texts and illustrations. This course cannot be used in place of English 401 to satisfy General Education requirements.

ENGL 502. Adolescence in Literature (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Placement Assessment with a score of 8 or higher (or earned a grade of C (2.0) or better in Rhetoric and Writing Studies 280, 281 [or Linguistics 281] if score on WPA was 6 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 510A. Earlier Histories of British and American Literature (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Historical movements and developments in English language literature before 1800. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 510B. Later Histories of British and American Literature (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Historical movements and developments in English language literature after 1800. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 519. Ethnic Literatures of the United States (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Works from United States ethnic literatures, with emphasis on formerly excluded traditions as African-American, Hispanic and Chicano, Asian-American, and American Indian.

ENGL 521. Early American Literature (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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. See *Class Schedule* for specific content.

ENGL 522. Literature of the United States, 1800-1860 (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Representative works by United States writers from 1800 to 1860; likely to include works by Emerson, Hawthorne, Melville, Poe, Stowe, Thoreau, Whitman, and others. See *Class Schedule* for specific content.

ENGL 523. Literature of the United States, 1860-1920 (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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. See *Class Schedule* for specific content.

ENGL 524. Literature of the United States, 1920-1960 (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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. See *Class Schedule* for specific content.

ENGL 525. Literature of the United States, 1960 to Present (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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. See *Class Schedule* for specific content.

ENGL 526. Topics in Literature of the United States (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Topics in United States literature to include the literature of the South, Black writers in the U.S., the frontier and U.S. literature, the outcast in U.S. literature, the immigrant experience in U.S. literature. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 527. Genre Studies (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

Chaucer's works, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*.

ENGL 533. Shakespeare (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

Milton's writings, with emphasis on *Paradise Lost*.

ENGL 540A-540B. English Fiction (3-3)

Prerequisites: Six lower division units in literature and/or creative writing.

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. See *Class Schedule* for specific content.

ENGL 541A-541B. English Drama (3-3)

Prerequisites: Six lower division units in literature and/or creative writing.

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. See *Class Schedule* for specific content.

ENGL 542. British Literary Periods, 1660-1800 (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Six lower division units in literature and/or creative writing.

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 550. Queer Texts and Contexts (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Queer knowledge and identities as expressed in literature and culture, to include queer theory, history, and experience. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 556. Gothic Literary Tradition (3)

Prerequisites: Six lower division units in literature and/or creative writing or graduate standing.

Gothic literary tradition from its beginnings to the present day. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 562. Digital Methods in Literary Studies (3)

Prerequisite: Six lower division units in literature and/or creative writing or graduate standing.

Analyzing digitized literary texts and creating born-digital literature. Studying and creating literature digitally. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units.

ENGL 563. Literature and Culture (3)

Prerequisites: Six lower division units in literature and/or creative writing.

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)

Prerequisites: Three lower division units in literature and/or creative writing and English 280.

Techniques of poetry from the 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)

Prerequisites: Three lower division units in literature and/or creative writing and 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)

Prerequisites: Three lower division units in literature and/or creative writing and 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 576A. Literary Publishing and Editing Workshop A (3)

Prerequisites: Six lower division units in literature and/or creative writing.

Survey of literary publishing and editing industry. Practical experience in a variety of publishing and editing skills, interaction with industry professionals, and critical writing. See *Class Schedule* for specific content. (Formerly numbered English 576.)

ENGL 576B. Literary Publishing and Editing Workshop B (3)

Prerequisites: Six lower division units in literature and/or creative writing or graduate standing.

Practical experience in small-press literary publishing. Creating and running a press to publish print and digital texts. Tutorials and guest lectures. See *Class Schedule* for specific content.

ENGL 577. Techniques of Screenwriting (3)

Prerequisites: Six lower division units in literature and/or creative writing. 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)

Prerequisites: Three lower division units in literature and/or creative writing and 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)

Prerequisites: Six lower division units in literature and/or creative writing and English 570.

A creative writing workshop in poetry. Continuation of English 570. Maximum credit six units.

ENGL 581W. Writing of Fiction (3)

Prerequisites: Three lower division units in literature and/or creative writing and English 280. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Placement Assessment with a score of 8 or higher (or earned a grade of C (2.0) or better in Rhetoric and Writing Studies 280, 281 [or Linguistics 281] if score on WPA was 6 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 584W. Writing Informal Essays (3)

Prerequisites: Three lower division units in literature and/or creative writing and English 280. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Placement Assessment with a score of 8 or higher (or earned a grade of C (2.0) or better in Rhetoric and Writing Studies 280, 281 [or Linguistics 281] if score on WPA was 6 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 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 degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Comparative Literature (C LT)

UPPER DIVISION COURSES

C LT 513. Nineteenth Century European Literature (3)

Prerequisites: Six units in literature.

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 561. Fiction (3)

Prerequisites: Six units in literature.

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 570. Ecocriticism (3)

Prerequisites: Six units in literature and/or creative writing.

In-depth study of relationship between environment and literature to include ecocritical literary theory, history, and practice.

C LT 577. Major Individual Authors (3)

Prerequisites: Six units in literature.

In-depth study of the works of a major author, such as Dante, García Márquez, 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)

Prerequisites: Six units in literature.

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 584. Topics in Comparative Horror Studies (3)

Prerequisites: Six units in literature and/or creative writing or graduate standing.

Comparative study of horror literature and other media to include film, music, television, and video games. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 594. Topics in Literature and the Arts (3)

Prerequisites: 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)

Prerequisites: 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. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

English (ENGL)

GRADUATE COURSES

ENGL 600. Introduction to Graduate Study (3)

Prerequisites: Twelve upper division units in English.

Introduction to research methods and critical approaches common in the graduate study of literature and expository writing, with attention to basic reference works, bibliographical techniques, analytical strategies, scholarly frames of reference, and theory. Recommended for first-semester graduate students.

ENGL 604. Seminar: Literary Period or Movement (3)

Prerequisites: An appropriate upper division or graduate level background course; credit or concurrent registration in English 600.

Advanced study, through its literature, of a literary period such as the Renaissance, or a movement such as American modernism. May be repeated with new content. Maximum credit six units applicable to a master's degree.

A. American Literature

B. British Literature

D. Children's Literature

ENGL 606. Seminar: A Literary Type (3)

Prerequisite: Credit or concurrent registration in English 600.

Advanced study of a specific literary genre, such as the novel, tragic drama, lyric poetry, the personal essay, autobiography. May be repeated with new content. Maximum credit six units applicable to a master's degree.

A. American Literature

D. Children's Literature

ENGL 624. British Literature (3)

Prerequisites: Twelve upper division units in English.

Selected works of an author, period, or subject in English literature. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ENGL 625. Literature of the United States (3)

Prerequisites: Twelve upper division units in English, with courses in American literature strongly recommended.

Selected works of an author, period, or subject in literature of the United States. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

ENGL 626. Comparative Literature (3)

Prerequisites: Twelve upper division units in English, comparative literature, or a foreign language literature.

Comparative approaches to literature: study of a theme, geographical region, external relationship, or of selected authors. May be repeated with new content. Maximum credit six units applicable to a master's degree.

ENGL 630. Form and Theory of Poetry (3)

Prerequisites: Twelve upper division units in English.

Poetry as a literary form. May be repeated with new content. Maximum credit six units applicable to an M.F.A. degree in creative writing.

ENGL 631. Form and Theory of Fiction (3)

Prerequisites: Twelve upper division units in English.

Fiction as a literary form. May be repeated with new content. Maximum credit six units applicable to an M.F.A. degree in creative writing.

ENGL 696. Special Topics (3)

Prerequisites: Twelve upper division units in English.

Intensive study in specific areas of English. May be repeated with new content. See *Class Schedule* for specific content. Maximum combined credit of six units of 526 or 549 applicable to a 30-unit master's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ENGL 700. Seminar: A Major Author or Authors (3)

Prerequisite: English 600.

Critical study of a major author or authors such as William Shakespeare, Charles Dickens, Edith Wharton, Marcel Proust, Gabriel García Márquez, Toni Morrison and others. May be repeated with new content. Maximum credit six units applicable to a master's degree.

ENGL 724. Seminar: Issues in British Literature (3)

Prerequisite: English 600.

Advanced study of issues within the development of the novel in Great Britain, colonial literatures in English, the British lyrical tradition and others. May be repeated with new content. Maximum credit six units applicable to a master's degree.

ENGL 725. Seminar: Issues in Literature of the United States (3)

Prerequisite: English 600.

Advanced study of such issues as postmodernity, regionalism, ethnicity, the urban experience, gender, the political novel. May be repeated with new content. Maximum credit six units applicable to a master's degree.

ENGL 726. Seminar: Issues in Comparative Literature (3)

Prerequisite: English 600.

Advanced study of an issue such as translation, negritude, cultural studies, semiotics, deconstruction, or literature and censorship. May be repeated with new content. Maximum credit six units applicable to a master's degree.

ENGL 727. Seminar: Issues in Children's Literature (3)

Prerequisites: Six units of approved 500- or 600-level courses.

Issues and topics of special interest to children's literature, such as gender depictions, commodification, cross-over writing, and regionalism. Maximum credit six units applicable to a master's degree.

ENGL 750F. M.F.A. Seminar: Fiction Writing (3)

Prerequisite: Open only to students admitted to M.F.A. in creative writing.

Advanced seminar in fiction writing. May include readings in contemporary fiction and narrative theory. Students in fiction focus must take course six times, generating new work each time with various instructors. Maximum credit 18 units applicable to a master's degree.

ENGL 750P. M.F.A. Seminar: Poetry Writing (3)

Prerequisite: Open only to students admitted to M.F.A. in creative writing.

Advanced seminar in poetry writing. May include readings in contemporary poetry and theory. Students in poetry focus must take course six times, generating new work each time with various instructors. Maximum credit 18 units applicable to a master's degree.

ENGL 784. Seminar: Creative Non-Fiction (3)

Prerequisites: Six units of graduate level creative writing courses.

Advanced approach to writing book reviews and short critical essays. Professional focuses necessary for these forms. Emphasis on writing, reading, research, and direct function of these processes.

ENGL 790. Seminar: Portfolio/Examination**Preparation (3) Cr/NC**

Prerequisites: Twenty-four units of graduate coursework that counts toward the M.A. in English. Student must be in final semester of study for the master's degree.

Preparation, with close faculty supervision, of scholarly essays for portfolio assessment and oral defense. Advanced study of critical approaches, development of sophisticated research methodology, and close attention to scholarly writing.

ENGL 791A. Seminar in M.F.A. Manuscript: Poetry (3) Cr/NC

Prerequisite: Completion of two years of study in the MFA program.

Techniques of manuscript construction from a poet's point of view. Students work on draft of a manuscript of poetry to include discussion of first books by major authors and a creative writing workshop. Maximum credit six units in English 791A applicable to a master's degree.

ENGL 791B. Seminar in M.F.A. Manuscript: Fiction (3) Cr/NC

Prerequisite: Completion of two years of study in the MFA program.

Techniques of manuscript construction from a fiction writer's point of view. Students work on draft of a manuscript of fiction to include discussion of first books by major authors and a creative writing workshop. Maximum credit six units in English 791B applicable to a master's degree.

ENGL 796. Internship (3) Cr/NC

Prerequisites: Advancement to candidacy for the Master of Arts degree in English and comparative literature or admission to the Master of Fine Arts program and consent of the graduate adviser and supervising professor.

Work experience with a practicing professional or company in the community, such as working as editorial assistant or teacher intern. Maximum credit nine units applicable to an M.F.A. degree with approval of graduate adviser.

ENGL 797. Thesis Research (3) Cr/NC/RP

Prerequisite: Advancement to candidacy in the M.F.A. degree in creative writing.

Independent work in general field of candidate's thesis project.

ENGL 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

ENGL 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the master's degree.

ENGL 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

ENGL 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Exercise Physiology

IN THE SCHOOL OF EXERCISE AND NUTRITIONAL SCIENCES
IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Exercise and Nutritional Sciences 351

TELEPHONE: 619-594-5541

WEBSITE: <https://ens.sdsu.edu>

Faculty

Matthew T. Mahar, Ed.D., Professor of Exercise and Nutritional Sciences, Director of School

Michael J. Buono, Ph.D., Professor of Exercise and Nutritional Sciences

Larry S. Verity, Ph.D., Professor of Exercise and Nutritional Sciences and Associate Dean for Academic Affairs of the College of Health and Human Services

Daniel T. Cannon, Ph.D., Assistant Professor of Exercise and Nutritional Sciences

Jochen Kressler, Ph.D., Assistant Professor of Exercise and Nutritional Sciences

Associateships and Assistantships

Graduate teaching associateships are available for a limited number of qualified students. These provide essential education, technical training, and creative experience necessary for future professional and scholarly activity or college-level teaching. Graduate assistantships are also available in some cases to aid faculty research. Applications and additional information on graduate programs may be obtained from the School of Exercise and Nutritional Sciences website at <http://ens.sdsu.edu>.

General Information

The School of Exercise and Nutritional Sciences offers graduate study leading to the Master of Science degree in exercise physiology and a concurrent graduate program leading to a Master of Science degree in nutritional science and Master of Science degree in exercise physiology. The major objective of the concurrent graduate program is to offer preparation in the interrelated fields of nutritional science and exercise physiology. In order to be granted permission to enroll in coursework leading to completion of the didactic program in dietetics (accredited by the Accreditation Council for Education in Nutrition and Dietetics), students admitted to the Master of Science degree in nutritional sciences, or the concurrent Master of Science degree in nutritional science and Master of Science degree in exercise physiology, must have completed all of the following (or equivalent courses) with a GPA of 3.1 or better: Biology 100, 100L, 211, 211L, 212, 336; Chemistry 100, 130, 160; and a statistics course (e.g. Psychology 280).

The Master of Science degree in exercise physiology has strong theoretical and practical components that provide a basis for students who anticipate employment in the field of rehabilitative and/or preventive exercise, as well as for those who intend to pursue a doctoral degree in exercise science. The faculty includes researchers who are professionally active in areas of study such as thermoregulation, nutrition and metabolism, exercise and aging, cardiac and metabolic pathophysiology, and environmental physiology. The school provides the students an opportunity to gain exercise-related experience under the close supervision of faculty. Graduate students learn pragmatic skills, such as physiological testing, exercise training, and participant education in the field of preventive and clinical exercise programming.

Admission to Graduate Study

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Exercise and Nutritional Sciences.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services

San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Science Degree in Exercise Physiology

General Information

The Master of Science degree in exercise physiology provides students with science courses in exercise physiology along with clinical application. The faculty are active researchers in areas of study to include thermoregulation and environmental physiology, fatigue and exercise intolerance, nutrition and metabolism, and respiratory control in healthy and diseased populations. Students learn laboratory skills and the physiological explanation of responses to exercise, and are provided the opportunity to gain exercise-related research experience under close faculty supervision.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, a student applying for admission to the graduate program in exercise physiology must meet the following requirements.

1. A bachelor's degree. Applicants who do not have an undergraduate major in kinesiology or related discipline may be admitted to conditionally classified graduate standing on the recommendation of the graduate adviser of the school. Students will be required to complete or have equivalent preparation in Biology 212, 336, Exercise and Nutritional Sciences 303, 304, 304L, and an undergraduate statistics course.
2. A grade point average (GPA) of at least 3.0 in the last 60 units of coursework.
3. A minimum score of 475 (old GRE score) or 151 (new GRE score) on the verbal and 475 (old GRE score) or 142 (new GRE score) on the quantitative sections of the GRE General Aptitude Test.

Students will be admitted ONLY in the fall semester.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 08355) (SIMS Code: 556521)

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree, as described in Part Four of this bulletin. The 36-unit program includes a minimum of 29 units of 500-, 600-, 700-, and 800-level coursework in the School of Exercise and Nutritional Sciences. No more than six units of 500-level coursework with the approval of the graduate adviser will apply to the program of study. The remaining units must be selected from courses listed in this bulletin as acceptable for master's degree programs. Students complete the degree by choosing either Plan A or Plan B. If students select Plan A, Exercise and Nutritional Sciences 799A (Thesis) is required for completion of the degree, accompanied by a final oral examination in the field of the thesis and on the implications of the thesis research for the broader field of exercise physiology. If students select Plan B, Exercise and Nutritional Sciences 790 (Seminar in Directed Readings) is required for completion of the degree.

Students are required to develop and sign a formal plan of study which must be approved by both a faculty adviser and the graduate adviser. This official program of study is developed when the student has completed between 12 and 21 units of study, and must be filed with the Division of Graduate Affairs as a prerequisite for advancement to candidacy.

The school expects the student to complete the degree within seven years. Failure to complete the degree requirements within seven years will result in dismissal from the program.

Required courses (36 units):

DPT 750	Concepts in Physiology, Pathophysiology, and Pharmacology	4
DPT 830	Cardiopulmonary Therapeutics	4
ENS 601	Experimental Methods in Exercise and Nutritional Sciences	3
ENS 602	Research Evaluation in Exercise and Nutritional Sciences	3
ENS 632	Physiological Chemistry of Exercise	3
ENS 661	Seminar in Advanced Physiology of Exercise	3
ENS 662	Advanced Exercise Physiology Laboratory	3
ENS 796	Exercise Specialist Internship	1-3 (Cr/NC)
ENS 799A	Thesis or Project	3 (Cr/NC/RP)
OR		
ENS 790	Seminar in Directed Readings	3 (Cr/NC)
Electives:	Seven units to be selected with approval of graduate adviser.	

Master of Science Degree in Nutritional Science and Master of Science Degree in Exercise Physiology

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, a student applying for admission to the concurrent program in nutritional science and exercise physiology must meet the following requirements.

1. A grade point average (GPA) of at least 3.0 overall or at least 3.0 in the last 60 units of baccalaureate coursework.
2. A bachelor's degree in foods and nutrition, exercise science, kinesiology, physical education, or related fields. Students will be required to complete or have equivalent preparation in Biology 212, 336, Chemistry 100, 130, 160, Nutrition 201, 302, 302L, and Exercise and Nutritional Sciences 303, 304, 304L, and an undergraduate statistics course.

3. A minimum score of 475 (old GRE score) or 151 (new GRE score) on the verbal and 475 (old GRE score) or 142 (new GRE score) on the quantitative sections of the GRE General Aptitude Test.

Students will be admitted ONLY in the fall semester.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science in Nutritional Science and Master of Science in Exercise Physiology

(Major Code: 08356) (SIMS Code: 552990)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 48 units as outlined below. Also, students complete their degree by choosing either Plan A or Plan B. In Plan A, students will include Nutrition 799A (thesis) or Exercise and Nutritional Sciences 799A (thesis) for completion of their degree, accompanied by a final oral examination on the field of the thesis and on the implications of the thesis research for the broader field of exercise and nutritional sciences. If students select Plan B, Exercise and Nutritional Sciences 790 (Directed Readings) is required for completion of the degree.

DPT 750	Concepts in Physiology, Pathophysiology, and Pharmacology	4
DPT 830	Cardiopulmonary Therapeutics	4
ENS 601	Experimental Methods in Exercise and Nutritional Sciences	3
ENS 602	Research Evaluation in Exercise and Nutritional Sciences	3
ENS 661	Seminar in Advanced Physiology of Exercise. 3	
ENS 662	Advanced Exercise Physiology Laboratory	3
ENS 796	Exercise Specialist Internship	3 (Cr/NC)
NUTR 600	Seminar: Foods and Nutrition	3
NUTR 607	Child Nutrition	3
NUTR 608	Geriatric Nutrition	3
NUTR 610	Nutrition and Energy	3
NUTR 700	Seminar in Nutrition	3
Plan A		
NUTR 799A	Thesis	3 (Cr/NC/RP)
OR		
ENS 799A	Thesis	3 (Cr/NC/RP)
or Plan B		
ENS 790	Seminar in Directed Readings	3 (Cr/NC)
Electives:	Seven units to be selected with approval of graduate adviser.	

If a student, after entering the concurrent program leading to a Master of Science degree in nutritional science and a Master of Science degree in exercise physiology returns to a single degree program, all the requirements for the single degree program must then be met.

The school expects the student to complete the degree requirements within seven years. Failure to complete the degree requirements within seven years will result in dismissal from the program.

Courses Acceptable for Master's Degree Programs (ENS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Exercise and Nutritional Sciences (ENS) UPPER DIVISION COURSE

ENS 596. Selected Topics in Exercise and Nutritional Sciences (1-3)

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 degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Exercise and Nutritional Sciences (ENS) GRADUATE COURSES

ENS 601. Experimental Methods in Exercise and Nutritional Sciences (3)

Prerequisite: Undergraduate statistics course.
Experimental methods in exercise and nutritional science.

ENS 602. Research Evaluation in Exercise and Nutritional Sciences (3)

Prerequisite: Exercise and Nutritional Sciences 601.
Techniques in designing, conducting, and reporting research in exercise and nutritional science. Qualitative and quantitative paradigms examined. Ethical consideration of human research.

ENS 632. Physiological Chemistry of Exercise (3)

Prerequisite: Exercise and Nutritional Sciences 661.
Biochemical and metabolic responses of the human body to acute and chronic exercise. Neuroendocrine control of fuel regulation during exercise.

ENS 659. Exercise Cardiology and Pathology (3)

Prerequisites: Exercise and Nutritional Sciences 304 and 304L.
Interpretation of resting and exercise electrocardiograms with cardiopulmonary pathologies that skew interpretations.

ENS 661. Seminar in Advanced Physiology of Exercise (3)

Prerequisites: Exercise and Nutritional Sciences 303 and 304.
Advanced aspects of the physiology of exercise. Effects of exercise on human beings in relation to health, longevity, morphology and performance.

ENS 662. Advanced Exercise Physiology Laboratory (3)

Nine hours of laboratory.
Prerequisites: Exercise and Nutritional Sciences 304, 304L, and admission to program in Exercise Physiology.
Laboratory course designed to develop competency in respiratory metabolism pulmonary function, gas analysis, blood chemistry and ergometry. Experience in the application of exercise procedures with human subjects and analysis and interpretation of results.

ENS 666. Adult Fitness: Exercise Prescription (3)

Prerequisites: Exercise and Nutritional Sciences 304 and 304L.
Physical conditioning programs for the prevention, rehabilitation, and control of diseases associated with aging adults. Topics include disease etiology, health/disease evaluation, and exercise prescription for apparently healthy and diseased adults.

ENS 696. Advanced Topics in Exercise and Nutritional Sciences (3)

Intensive study in specific areas of exercise and nutritional sciences. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ENS 790. Seminar in Directed Readings (3) Cr/NC

Prerequisites: Exercise and Nutritional Sciences 602 and advancement to candidacy.

Preparation for comprehensive examination for students pursuing either an M.A. or an M.S. degree under Plan B.

ENS 796. Exercise Specialist Internship (1-3) Cr/NC

Three hours of laboratory per unit.

Prerequisites: Exercise and Nutritional Sciences 662 and Doctor of Physical Therapy 830.

Supervised application of exercise laboratory testing, test interpretation, exercise prescription and exercise leadership in adult fitness, corporate fitness, preventive medicine and/or hospital disease rehabilitation setting.

ENS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of school director.

Individual study. Maximum credit six units applicable to a master's degree.

ENS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ENS 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

ENS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Finance

Refer to "Business Administration" in this section of the bulletin.

French

IN THE DEPARTMENT OF EUROPEAN STUDIES
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Storm Hall 224A
TELEPHONE: 619-594-5111 / **FAX:** 619-594-8006
E-MAIL: french.coord@sdsu.edu
WEBSITE: <http://french.sdsu.edu>

Chair of Department: Clarissa Clò, Ph.D.

Faculty

Edith J. Benkov, Ph.D., Professor of French, Emeritus

Anne Donadey, Ph.D., Professor of French
and Women's Studies (Graduate Adviser)

James L. Schorr, Ph.D., Professor of French, Emeritus

Associateships

Graduate teaching associateships in French are available to a limited number of qualified students. Application forms and additional information may be secured from the Department of European Studies.

General Information

Research areas of the graduate faculty cover most periods of French and Francophone literature and culture. In particular, the department includes specialists in fields such as Francophone literature and cultural studies, medieval and renaissance cultural studies, eighteenth century literature, theatre and film studies, and second language acquisition and technology. SDSU houses a federally-funded National Language Resource Center, which conducts research and dissemination projects in all areas of language and culture. Further, we have a state-of-the-art research library.

The graduate program in French offers opportunities for well-qualified M.A. candidates to complete up to nine units of their 30 unit official program on a study abroad program. Graduate students may participate in the CSU International Programs, ISEP, or the SDSU Paris Semester. An M.A. degree earned in the program can provide students with university-level teaching experience and access to community college level teaching positions. Students who earn an M.A. in French at SDSU may also continue on to a Ph.D. program or pursue a variety of careers in areas where knowledge of French language and culture are necessary.

Admission to Graduate Study

The student must satisfy the general requirements for admission to the university with classified standing, as described in Part Two of this bulletin. In addition, the student must satisfy the following requirements: (1) an undergraduate major in French, or its equivalent, including 30 upper division units, at least six units of which must be in a survey course in French literature; (2) a GPA of 3.0 (on a 4-point scale) in all upper division French courses; (3) a minimum score of 500 on the verbal section and 450 on the quantitative section of the Graduate Record Examination (GRE) General Test.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of European Studies.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of European Studies

The following materials should be mailed or delivered to:

Department of European Studies

(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7704

1. Three letters of recommendation from professors, at least two of which should be from professors of French at the institution where the degree was granted (in sealed and signed envelopes);
2. A writing sample (your best paper written in French, preferably for a literature class);
3. The filled out graduate teaching assistant application form if you are interested in teaching French in the program). The graduate teaching assistant form should be requested from the graduate adviser for the M.A. in French before the application deadline.

Advancement to Candidacy

All students will be required to pass a qualifying examination in French given by the Department of European Studies. This examination will also satisfy the foreign language requirement as stated in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 11021) (SIMS Code: 112701)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units which includes a major consisting of at least 24 units in French, of which at least 18 units must be in 600- and 700-numbered courses in French, including French 799A, Thesis, for those following Plan A.

Students, with the consent of the graduate adviser, may elect Plan A, which includes French 799A, Thesis (minimum GPA 3.6), or Plan B, which includes written and oral examinations in lieu of the thesis.

Courses Acceptable for Master's Degree Program in French (FRENC)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

All upper division courses in French are taught in French unless otherwise stated.

Related 500-level courses in other departments may be taken for a total of six units credit with prior approval of the graduate adviser.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

Related graduate level courses in other departments may be taken for a total of six units credit with prior approval of the graduate adviser.

FRENC 621. Critical Methods (3)

Prerequisites: Eighteen upper division units in French.

Methods and theories of critical analysis and their application to the works of a major French author or literary genre.

FRENC 631. Issues in French and Francophone Studies (3)

Prerequisite: Graduate standing.

Study of a theme, theoretical or literary movement, or historical moment. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

FRENC 696. Topics in French Studies (3)

Prerequisites: Eighteen upper division units in French.

Intensive study in specific areas of French. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

FRENC 700. Seminar: A Major French or Francophone Author (3)

Prerequisites: Eighteen upper division units in French.

In-depth study of works of a major French or Francophone author. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

FRENC 710. Seminar in a Literary Genre (3)

Prerequisites: Eighteen upper division units in French.

Study of a specific literary genre, e.g. poetry, novel, theater. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

FRENC 720. Seminar in French and Francophone Culture and Civilization (3)

Prerequisites: Eighteen upper division units in French.

Study of a specific topic in French and Francophone culture and civilization. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

FRENC 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Advancement to candidacy and approval of graduate adviser.

Individual study. Maximum credit three units applicable to a master's degree.

FRENC 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

FRENC 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

FRENC 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Geography

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Storm Hall 314

TELEPHONE: 619-594-5437 / **FAX:** 619-594-4938

WEBSITE: <http://geography.sdsu.edu>

Faculty

Piotr L. Jankowski, Ph.D., Professor of Geography,
Chair of Department

Stuart C. Aitken, Ph.D., Albert W. Johnson Distinguished Professor
of Geography, The June Burnett Chair in Children's and Family
Geographies

Li An, Ph.D., Professor of Geography

Trent W. Biggs, Ph.D., Professor of Geography
(Master's Degree Program Adviser)

Fernando J. Bosco, Ph.D., Professor of Geography
(Doctoral Program Adviser)

George Christakos, Ph.D., Professor of Geography, The Stephen
and Mary Birch Foundation Chair in Geographical Studies

Pascale J. Marcelli, Ph.D., Professor of Geography

John F. O'Leary, Ph.D., Professor of Geography
[Senate Distinguished Professor]

André Skupin, Ph.D., Professor of Geography

Douglas A. Stow, Ph.D., Albert W. Johnson Distinguished
Professor of Geography

Ming-Hsiang Tsou, Ph.D., Professor of Geography

Kathleen A. Farley Wolf, Ph.D., Associate Professor of Geography

Arielle S. Levine, Ph.D., Associate Professor of Geography

Hilary K. McMillan, Ph.D., Associate Professor of Geography

Katherine Elizabeth Swanson, Ph.D., Associate Professor of
Geography

Anne-Marie Debanné, Ph.D., Assistant Professor of Geography

Fernando De Sales, Ph.D., Assistant Professor of Geography

Atsushi Nara, Ph.D., Assistant Professor of Geography

The Stephen and Mary Birch Foundation Chair in Geographical Studies

The Stephen and Mary Birch Foundation Chair in Geographical
Studies was created through the Birch Foundation's grant to the
Department of Geography to endow a chair and create a Center
for Earth Systems Analysis Research. Dr. George Christakos, inter-
nationally recognized for his expertise in theory and methodology
of spatial analysis and mathematical modeling applied to environ-
mental, ecological, health, and geographical systems is the third
holder of the chair.

The June Burnett Chair in Children's and Family Geographies

The Children's and Family Geographies Chair was created
in 2013 as part of the Department of Geography's June Burnett
Endowment. The chair is in support of the Center for Interdisci-
plinary Studies of Youth and Space (ISYS), and focuses on spatial
research and therapeutic/ethnographic practices related to the
well-being of children and young people. Albert W. Johnson Dis-
tinguished Professor of Geography Stuart C. Aitken, internation-
ally recognized for his research on children's geographies, youth
activism, critical theory, and qualitative methodologies is the first
holder of the chair.

Associateships

Approximately 45 graduate teaching associateships and grad-
uate research associateships in geography are available to highly
qualified students. Applications and additional information may
be secured from the department. The deadline for submitting
applications for teaching associateships or research associate-
ships for the master's degree programs can be found at [https://
geography.sdsu.edu/programs/masters/apply](https://geography.sdsu.edu/programs/masters/apply).

The deadline for submitting applications for the Doctor of Phi-
losophy degree program can be found at [https://geography.sdsu.
edu/programs/doctoral/apply](https://geography.sdsu.edu/programs/doctoral/apply).

Applications for associateships must include transcripts, three
letters of recommendation, Graduate Record Examination (GRE)
scores, and a statement of interests and goals. Our graduate
teaching associateships program can prepare students for a
teaching career.

General Information

The Department of Geography offers graduate study leading
to the Master of Arts, Master of Science, and Doctor of Philoso-
phy degrees in geography. These degrees provide the essential
education, technical training, and creative experience necessary
for professional activity or college-level teaching. Graduate pro-
grams are generally assigned around one of the following sys-
tematic areas:

Group A – Systematic Areas

- Human Geography — Urban, Social, and Political Geography
- Environmental Geography — Society and Environment,
Watershed/Ecosystems Analysis
- Physical Geography — Biogeography, Climatology,
Hydrology, Landscape Ecology
- Geographic Information Science and Technology

Group B – Spatial Analytical Methods and Techniques

- Spatial Statistics
- Qualitative Methods and Ethnography
- Cartography and Internet Mapping
- Geocomputation and Spatial Modeling
- Geographic Information Systems (GIS)
- Remote Sensing and Image Processing
- Visualization and Visual Data Mining
- Spatial Decision Support Systems and Participatory GIS

Each student's program is designed around at least one of the
areas selected from Group A and at least one of the technique
emphases selected from Group B. The main regional foci are
California, Latin America, Mexico-U.S. borderlands, South Pacific
Islands, Africa, and Asia. Further information on systematic areas,
techniques and regional foci, as well as general program infor-
mation can be obtained through the Department of Geography's
website at <https://geography.sdsu.edu>.

The master's degree programs are designed to provide
advanced training for a) students who plan to terminate their
graduate studies at the master's level, and b) those who antici-
pate additional work leading to the doctoral degree in geography
or related fields.

The Master of Arts degree program is designed around one of
the systematic areas previously listed in Group A and will gener-
ally also include coursework in one of or more technical skills in
Group B. The Master of Science program has two concentrations
(1) geographic information science, and (2) watershed science.

The Doctor of Philosophy program, offered jointly with the Uni-
versity of California, Santa Barbara, provides advanced training
for research and teaching at the highest academic level.

Research and instructional facilities provided by the Depart-
ment of Geography include the Stephen and Mary Birch Center for
Earth Systems Analysis Research (CESAR), the Center for Human
Dynamics in the Mobile Age (HDMA), the Center for Information
Convergence and Strategy (CICS), the Center for Interdisciplinary
Studies of Youth and Space (ISYS), and laboratories for physical
geography, cartography, remote sensing and aerial interpretation,
and equipment for field studies.

Admission to Master's and Doctoral Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the required application fee.

All applicants must submit admissions materials to SDSU Graduate Admissions and complete the Department of Geography application.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Arts Degree in Geography

Master of Science Degree in Geography

The following admissions materials must be submitted electronically:

1. Copies of transcripts from all colleges and universities attended and copies of GRE (and TOEFL, if applicable) test scores. These do not need to be sent directly from the colleges – scanned copies are acceptable;
2. Statement of geographic research interests and professional goals, and the names of at least one (up to three) SDSU geography faculty who would be suitable program advisers;
3. Three letters of recommendation. Applicant must provide names and email addresses of recommenders. Recommenders will be invited to complete the recommendation electronically;
4. Optional: If you would like to apply for a graduate assistantship, download and complete the application and upload it along with your other application materials.

For information regarding the admissions process, visit the department website at <http://geography.sdsu.edu>.

Ph.D. Degree in Geography

The following admissions materials must be submitted electronically:

1. Copies of transcripts from all colleges and universities attended and copies of GRE (and TOEFL, if applicable) test scores. These do not need to be sent directly from the colleges – scanned copies are acceptable;
2. Statement of geographic research interests and professional goals and the names of at least one (up to three) UCSB geography faculty who would be suitable program advisers;
3. Three letters of recommendation. Applicant must provide names and email addresses of recommenders. Recommenders will be invited to complete the recommendation electronically;
4. Current curriculum vitae or resume.

For more information about the admissions process, including the admissions materials, consult the department's website at <http://geography.sdsu.edu>.

Section I. Master's Degree Programs

Admission to the Degree Curriculum

Admission application deadlines for the upcoming fall semester are given at <https://geography.sdsu.edu/programs/masters/apply>.

Satisfaction of the minimum requirements of San Diego State University and of the Department of Geography does not guarantee admission to the master's program for either the fall or spring semester. Department requirements are normally a minimum grade point average of 3.0 in the last 60 semester units taken as an undergraduate and a satisfactory combined score (minimum 300, old test: 1000) on the verbal and quantitative section of the GRE. The minimum English language score is 550. Applicants taking the Computer Based Test of English must present a score of 80 or above.

Candidates whose preparation is considered insufficient by the master's advising committee will be required to complete specified courses in addition to the minimum 30 units required for the degree.

We will notify applicants of our recommendation on admission to the master's program in geography after application files in Enrollment Services and in the Department of Geography are complete. Enrollment Services will notify you of admission to the Division of Graduate Affairs.

Advancement to Candidacy

All students must satisfy the general requirements for candidacy, as stated in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree (Major Code: 22061) (SIMS Code: 112901)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units of upper division and graduate courses selected with the approval of the master's advising committee. The department requires students to complete all degree requirements within seven years of the semester that they entered the M.A. program.

The requirements for students electing the Master of Arts degree program are as follows:

1. A minimum of 30 units of courses numbered 500 or above as approved by the geography department master's advising committee. At least 24 of these units must be from the geography department.
2. A minimum of 18 of the 30 units of coursework must be 600- or 700-level courses.
3. Geography 700 and 701, normally taken during the first two semesters.
4. Completion of Geography 799A (Thesis).

Specific Requirements for the Master of Science Degree (Major Code: 22061) (SIMS Code: 112991)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units of upper division and graduate courses selected with the approval of the master's advising committee. The department requires students to complete all degree requirements within seven years of the semester that they entered the M.S. program.

Concentration in Geographic Information Science (SIMS Code: 112990)

1. A minimum of 30 units of which not more than six may be in disciplines other than geography and at least 15 units from 600- and 700-numbered courses in geography.
2. Geography 700 and 701.
3. A thesis in the area of geographic information science (Geography 799A).

4. Fifteen units from the following list of geographic information science courses: Geography 581 through 585, 589, 591 through 594, 683 through 688L, 780.
5. Additional 500-, 600-, and 700-level coursework determined in consultation with the student's thesis adviser.

Concentration in Watershed Science (SIMS Code: 112995)

1. A minimum of 30 units with no more than nine units from disciplines other than geography and at least 15 units from 600- and 700-numbered courses.
2. Geography 700 and 701.
3. A thesis in the area of watershed science (Geography 799A).
4. Geography 511 and six units of methods courses selected from Geography 576, 581 through 585, 589, 683 through 688L, 780.
5. Advanced coursework (12 units) in watershed science to be determined in consultation with the student's adviser.

Section II. Doctoral Program

WEBSITE: <http://geography.sdsu.edu/programs/doctoral>

General Information

(Major Code: 22061) (SIMS Code: 112901)

The cooperating faculties of the Department of Geography at San Diego State University and the University of California, Santa Barbara, offer a joint doctoral program in geography. The research interests of the participating faculty members cover a range of geographic problems. The joint doctoral program offers work leading to the Ph.D. in the following systematic areas (Group A) with supporting development of skills in spatial techniques (Group B) as previously listed.

Each student's program is designed around one of the areas selected from Group A and at least one of the technique emphases selected from Group B. Students must attain the requisite skills in programming, statistics, mathematics, and foreign language necessary to successfully pursue their research goals.

Admission to the Degree Curriculum

Applicants for admission to the doctoral program in geography offered jointly by SDSU and UCSB must meet the general requirements for admission to both universities with classified graduate standing as outlined in the respective current catalogs. There are no inflexible requirements for entrance to graduate study in this program, but a strong background in geography or a closely related field is essential. Admission to the program requires acceptance by the graduate deans and by the participating departments at UCSB and SDSU. Applications from outstanding students in other majors are encouraged, but such students should expect to take additional courses during their first year to improve their background. All students entering the program should have completed a lower and upper division statistics course and the appropriate mathematics and computer science courses for the specialty chosen.

Application. Admission application deadlines for the upcoming fall semester are given at <https://geography.sdsu.edu/programs/doctoral/apply>. Applicants are not admitted for the spring semester. Review procedures begin in January with admission notification beginning mid-March and continuing through mid-April.

A high undergraduate grade point average, normally 3.25 or better for the last 60 units taken (90 quarter units), and/or a graduate grade point average of 3.50 or better are required for admission. A minimum combined score of 1100 (for tests taken prior to August 2011) or 307 (for tests taken after August 2011) on the GRE is expected. Scores on both the verbal and quantitative sections of the GRE should exceed the 50th percentile. Foreign students whose preparatory education was not in English should receive a minimum Test of English as a Foreign Language (TOEFL) score of 600 for the paper-based test and 100 for the Internet-based test.

Satisfaction of the minimum requirements at San Diego State University or the Department of Geography does not guarantee admission to the doctoral program.

Specific Requirements

Residency Requirements. After formal admission to the joint doctoral program, the student must spend at least one academic year in full-time residence on each of the two campuses. The definition of residence must be in accord with the regulations of UCSB and SDSU. Usually, the first year is spent at SDSU, the second at UCSB, and subsequent years at SDSU.

Advising Committee. Upon admission to the program, the joint doctoral graduate advisers of the two institutions will establish an advising committee for each student. The committee will consist of four faculty members, normally two from each campus. In consultation with the student, the committee will develop a course of study, including identifying academic deficiencies and recommending remedies for them. The advising committee will be the official advising group for the student until a joint doctoral committee has been chosen and recommended to the Divisions of Graduate Affairs by the advising committee.

Language Requirement. There is no specific foreign language requirement for this program, but knowledge of a foreign language may be deemed necessary by the advising committee to successfully pursue the student's research goal.

Course Requirements. Students admitted into the joint doctoral program are expected to take common core courses. At SDSU, these include: Geography 700 (Seminar in Geographic Research Design) and Geography 701 (Seminar in Development of Geographic Thought). At UCSB, students are required to register in Geography 200A (Introduction to Geographic Research) and Geography 201 (Colloquium) each quarter. No specified number of courses beyond core courses is required for the doctoral degree. However, students are expected to have a broad understanding of modern geographic principles in addition to a specialist's competence in their own sub-field. In addition, all doctoral students must have computational skills and knowledge of spatial analysis.

Qualifying Examinations

Joint Doctoral Committee. When a doctoral student makes a definitive selection of the systematic area and technique emphasis as well as the general topic of their dissertation research, she/he will select a dissertation supervisor (major professor), who can be from either department but who normally will be a member of the SDSU faculty, and the members of his/her joint doctoral committee. The joint doctoral committee shall be composed of at least four members (with the rank of Assistant Professor or above), two from the SDSU department and two from the UCSB department. The committee may be augmented as needed by an additional member from outside geography at UCSB or a member of the faculty at SDSU from outside of geography or, when authorized, another university. Chaired by the student's major professor, the joint doctoral committee shall be responsible for evaluating the dissertation proposal, administering and evaluating the qualifying examination, judging the dissertation, and administering and evaluating the dissertation defense.

Qualifying Examinations. The process of qualifying to write a Ph.D. dissertation has three steps. First, the student must take a written qualifying examination that normally consists of three portions devoted to: 1) the student's substantive area, 2) the technical or methodological field(s) of interest, and 3) general geographic thought and inquiry. Second, the student prepares a dissertation proposal that describes the dissertation topic, summarizes the relevant background literature, and presents a comprehensive research plan for the dissertation. Third, the student's doctoral committee will conduct an oral qualifying examination to ensure that the student possesses the full knowledge and competence required to carry out her or his dissertation research. The doctoral committee will assign a pass or fail grade for each examination. Passing the written examination allows the student to proceed to the preparation of the dissertation proposal. The doctoral committee must conditionally approve the dissertation proposal before the student takes the oral qualifying examination. Passing the oral examination signifies that the doctoral dissertation proposal is approved. A student may repeat each examination once.

Upon satisfactory completion of the oral examination and prescribed coursework, the student must apply to the graduate dean

Geography

at UCSB for advancement to candidacy. Upon payment of the candidacy fee to UCSB, and after approval by the graduate deans of both campuses, students will be notified of their advancement to candidacy by the UCSB graduate dean.

Dissertation. Following the successful completion of all prescribed coursework and qualifying examinations, the major remaining requirement for the Ph.D. degree will be the satisfactory completion of a dissertation consisting of original research of publishable quality carried out under the guidance of the major professor. Approval of the completed dissertation by the joint doctoral committee implies that an organized investigation has been carried out yielding substantial conclusions of interest which expand the frontiers of knowledge and understanding in the discipline. Results must be reported in a manner demonstrating the ability of the candidate to effectively pursue and report independent investigation.

The requirement for completing and filing the dissertation, including the number of copies required, will be decided jointly by the graduate deans and in accordance with regulations of the Divisions of Graduate Affairs.

Final Examination. The final examination, organized and administered by the joint doctoral committee, shall consist of a public dissertation defense, before the joint doctoral committee.

Award of the Degree. The Doctor of Philosophy degree in geography will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both institutions.

Financial Support. The Department of Geography at SDSU has a number of research and teaching associateships available to support students admitted to the joint doctoral program. All students applying to admission to the joint doctoral program will be considered for financial support.

Courses Acceptable for Master's and Doctoral Degree Programs in Geography (GEOG)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

GEOG 506. Landscape Ecology (3)

Prerequisite: Geography 101. Recommended: Geography 370 or 385.

Links between landscape patterns and ecological processes at a variety of spatial scales to include causes and measures of landscape patterns, effects of landscape patterns on organisms, landscape models, landscape planning and management.

GEOG 507. Geography of Natural Vegetation (3)

Prerequisite: Geography 101, Biology 100, or Environmental Science 100 [or Sustainability 100].

The natural vegetation formations of the world and their classifications, development, distribution, and environmental influences to include relationships to human activities. Field trips may be arranged.

GEOG 509. Regional Climatology (3)

Prerequisite: Geography 101, 103, or Environmental Science 100 [or Sustainability 100].

Regional distributions of Earth's climates and basic principles governing atmospheric processes that control global distributions of climate types.

GEOG 511. Hydrology and Global Environmental Change (3)

Prerequisite: Geography 101 or 103.

Hydrologic processes and regimes, how these are affected by environmental change and how hydrologic process and regimes affect patterns of environmental change. Processes operating at global, regional, and local scales are examined, including land-use/land-cover change and climate change.

GEOG 512. World on Fire (3)

Prerequisite: Geography 101 or 103 or Biology 100 or Environmental Science 100 [or Sustainability 100] or Geological Sciences 100 or 104.

Wild-land fire processes, controls, and effect on soils, water resources, and vegetation in contrasting ecosystems. Fire regimes and mitigation strategies. Fire research.

GEOG 554. World Cities: Comparative Approaches to Urbanization (3)

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 570. Environmental Conservation Practice (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)

Prerequisite: Geography 370.

Theoretical and practical approaches to land use management. Current and relevant techniques and policies at local, state and federal levels, aimed toward providing healthy and environmentally sound communities that provide positive benefits to society and the economy. 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)

Prerequisites: Geography 370 and 375.

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)

Prerequisite: Geography 101 or 102.

Importance of society, environment, and location in the use, management, and quality of recreation areas. Direct observation of practices and policies with field trips to local (San Diego) areas and an optional four-day trip to Yosemite National Park.

GEOG 576. Advanced Watershed Analysis (3)

Prerequisite: Geography 101, 103, or 104. Recommended: Geography 375 and 484.

Theory and techniques in watershed analysis. Use of GIS and statistical programming for analyses of geomorphology, hydrology, and water quality data.

GEOG 580. Data Management for Geographic Information Systems (3)

Two lectures and three hours of laboratory.

Prerequisites: Geography 381 or 484; Computer Science 107 or 108; or graduate standing.

PostgreSQL, PostGIS, and open source databases to store, manage, and query geospatial data.

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 582. GIS Programming with Python (3)

Prerequisite: Geography 381, 484, or graduate standing. Recommended: Computer Science 107 or 108.

Automating geocoding processes by Python scripting, managing vector and raster data, and preprocessing geospatial data.

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.

GEOG 584. Geographic Information Systems Applications (3)

Two lectures and three hours of laboratory.

Prerequisite: Geography 484.

Spatial analysis methods in GIS, to include terrain, raster, and network analysis. Feature distributions and patterns. GIS data processing techniques to include spatial interpolation, geocoding, and dynamic segmentation. Designing and executing analytical procedures.

GEOG 585. Quantitative Methods in Geographic Research (3)

Prerequisite: Geography 385.

Application of statistical techniques to geographic research to include simple regression and correlation, multiple regression, geographically weighted regression, classification, factor analysis, and computer applications.

GEOG 586. Qualitative Methods in Geographic Research (3)

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 589. GIS-Based Decision Support Methods (3)

Prerequisite: Geography 484.

Integration of Geographic Information Systems (GIS) with discrete and continuous multiple criteria decision making (MCDM) methods. Applications of MCDM in land use planning, site selection, and resource management spatial decision problems.

GEOG 590. Community-Based Geographic Research (3)

One lecture and four hours of activity or fieldwork.

Prerequisite: Consent of instructor. Recommended: Statistics 119.

Local social and/or environmental issues. Research design, data collection and analysis, collaboration with community-based organizations, reflection on research and social responsibility, communication of findings. Maximum credit six units.

GEOG 591. Remote Sensing of Environment (3)

Prerequisites: Geography 101, Environmental Science 100 [or Sustainability 100]. Recommended: Physics 180A-180B. Undergraduate students must be concurrently registered in Geography 591 and 591L. Graduate students may take Geography 591L concurrently or after Geography 591.

Acquiring and interpreting remotely sensed data of environment. Electromagnetic radiation processes, aerial and satellite imaging systems and imagery. Geographic analysis of selected human, terrestrial, and marine processes and resources. (Geography 591 and 591L formerly numbered Geography 587.)

GEOG 591L. Remote Sensing of Environment Laboratory (1)

Three hours of laboratory.

Prerequisites: Geography 101, Environmental Science 100 [or Sustainability 100]. Recommended: Physics 180A-180B. Undergraduate students must be concurrently registered in Geography 591 and 591L. Graduate students may take Geography 591L concurrently or after Geography 591.

Practical exercises, introductory processing, visual interpretation and mapping of remotely sensed imagery. (Geography 591 and 591L formerly numbered Geography 587.)

GEOG 592. Intermediate Remote Sensing of Environment (3)

Prerequisites: Geography 385, 591, 591L. Undergraduate students must be concurrently registered in Geography 592 and 592L. Graduate students may take Geography 592L concurrently or after Geography 592.

Digital image processing. Thermal infrared and microwave imaging systems and image interpretation principles. Geographic analysis of selected human, terrestrial, oceanographic, and atmospheric processes and resources. (Geography 592 and 592L formerly numbered Geography 588.)

GEOG 592L. Intermediate Remote Sensing of Environment Laboratory (1)

Three hours of laboratory.

Prerequisites: Geography 385, 591, 591L. Undergraduate students must be concurrently registered in Geography 592 and 592L. Graduate students may take Geography 592L concurrently or after Geography 592.

Digital image processing, visual interpretation, mapping of thermal infrared, and microwave imagery. (Geography 592 and 592L formerly numbered Geography 588.)

GEOG 593. GIS for Business Location Decisions (3)

Two lectures and three hours of laboratory.

Prerequisite: Geography 484 or graduate standing. Recommended: Geography 584, 589.

Geographic Information Systems (GIS) and location analysis methods to include modeling and spatial analysis. Applications of GIS and location analysis in business site selection, market segmentation, retail marketing, and service area analysis.

GEOG 594. Big Data Science and Analytics Platforms (3)

Prerequisites: Geography 104, Computer Science 100 or 107; and Geography 385, Sociology 201, Statistics 250, or graduate standing.

Big data science to include analysis, data collection, filtering, GIS, machine learning, processing, text analysis, and visualization. Computational platforms, skills, and tools for conducting big data analytics with real world case studies and examples.

GEOG 595. Geographic Internship (3)

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.

GEOG 596. Advanced Topics in Geography (1-3)

Prerequisites: Six upper division units in geography.

Advanced special topics in geography. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES**GEOG 670. Environmental Conservation Theory (3)**

Prerequisite: Graduate standing.

Theories and principles involved in natural and environmental resources management.

GEOG 683. Advanced Geographic Information Systems (3)

Prerequisites: Geography 484 and Computer Science 108.

Scripting techniques with Python for automating geoprocessing tasks and developing GIS tools. Use of Bayes' Theorem in spatial modeling.

GEOG 683L. Advanced Geographic Information Systems Laboratory (1-2)

Three to six hours of laboratory.

Prerequisite: Concurrent registration in Geography 683.

Geoprocessing Python scripting techniques with applications to spatial modeling and analysis.

Geography

GEOG 688. Advanced Remote Sensing (3)

Prerequisite: Graduate standing.

Sensor systems, image interpretation and geographic applications in thermal infrared and microwave remote sensing. Principles of digital image processing.

GEOG 688L. Advanced Remote Sensing Laboratory (1-2)

Two or four hours of laboratory.

Prerequisite: Concurrent registration in Geography 688.

Processing and analysis of remotely sensed data. Laboratory training in sensor systems and digital image-processing methods including thermal infrared and microwave data analysis.

GEOG 696. Advanced Special Topics in Geography (3)

Prerequisite: Consent of instructor.

Advanced special topics in geography. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GEOG 700. Seminar in Geographic Research Design (3)

Prerequisite: Graduate standing.

Definition of spatial problems, hypothesis formulation and testing, selection of appropriate methodology. Development of research proposals, conduct of research, written and oral presentations.

GEOG 701. Seminar in Development of Geographic Thought (3)

Prerequisite: Graduate standing.

Evolution of concepts concerning the nature, scope, theories, and methodologies of geography.

GEOG 710. Seminar in Physical Geography (3)

Prerequisites: Six units of upper division or graduate level courses in physical geography.

Intensive study of an aspect of physical geography. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

GEOG 740. Seminar in Human Geography (3)

Prerequisites: Six units of upper division or graduate level courses in human geography.

Intensive study of a spatial aspect of human geography. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

GEOG 760. Seminar in Behavioral and Social Geography (3)

Prerequisites: Six units of upper division or graduate level courses in behavioral or social geography.

Intensive study of a spatial aspect of behavioral or social geography. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

GEOG 770. Seminar in Environmental Conservation (3)

Prerequisites: Geography 670 and six units of upper division or graduate level courses in environmental or resource conservation.

Natural and environmental resource conservation. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

GEOG 780. Seminar in Techniques of Spatial Analysis (3)

Prerequisites: Six units of upper division or graduate level courses in spatial analytic techniques.

Spatial analytic techniques from image processing, remote sensing, geographic information systems, cartography or quantitative methods. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

GEOG 797. Research (1-3) Cr/NC/RP

Research in one of the fields of geography. Maximum credit six units applicable to a master's degree.

GEOG 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

GEOG 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

GEOG 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

DOCTORAL COURSES

GEOG 890. Independent Study for Doctoral

Examination (1-9) Cr/NC

Prerequisite: Consent of instructor or graduate adviser.

Tutorial with student's major professor in preparation for qualifying examinations. No unit credit allowed toward advanced degree. Maximum credit nine units.

GEOG 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent investigation in the general field of the dissertation.

GEOG 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: Advancement to candidacy and an officially constituted dissertation committee.

Preparation of a dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved. No unit credit allowed toward advanced degree.

Geological Sciences

IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 237

TELEPHONE: 619-594-5586 / **FAX:** 619-594-4372

E-MAIL: geology@sdsu.edu

WEBSITE: <http://www.geology.sdsu.edu>

Faculty

Allen M. Gontz, Ph.D., Professor of Geological Sciences,
Chair of Department

Steven M. Day, Ph.D., Professor of Geological Sciences, Emeritus,
The Rollin and Caroline Eckis Chair in Seismology

Eric G. Frost, Ph.D., Professor of Geological Sciences

David L. Kimbrough, Ph.D., Professor of Geological Sciences

Kim Bak Olsen, Ph.D., Professor of Geological Sciences,
The Rollin and Caroline Eckis Chair in Seismology

Thomas K. Rockwell, Ph.D., Professor of Geological Sciences

Stephen A. Schellenberg, Ph.D., Professor of Geological Sciences
and Assistant Vice President for Educational Effectiveness of the
Division of Academic Engagement and Student Achievement

Shuo Ma, Ph.D., Associate Professor of Geological Sciences
(Graduate Adviser)

Kathryn W. Thorbjarnarson, Ph.D., Associate Professor of
Geological Sciences, Emeritus

Jillian M. Maloney, Ph.D., Assistant Professor of Geological
Sciences

Barry B. Hanan, Ph.D., Resident Isotope Geochemist

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 current appointee, Dr. Kim Bak Olsen, conducts research on seismic wave propagation as well as earthquake source description and hazards.

Associateships

Graduate teaching associateships in geological sciences are available to a limited number of qualified students. Application forms and additional information may be secured from the graduate adviser of the department. The program is designed to (1) prepare students for careers in consulting, domestic and multinational firms, and government agencies, (2) provide students with university-level teaching experience and access to community college teaching positions, and (3) provide advanced training in the earth sciences for students planning on entering a Ph.D. program.

Section I. Master's Degree Programs

General Information

The Department of Geological Sciences offers graduate study leading to the Master of Science degree in geological sciences. The program emphasizes research and an advanced set of courses. Faculty research activities comprise a broad spectrum of expertise, including both theoretical and applied interests. Opportunities exist for integrated field and laboratory research. The department is equipped to support research in geophysics, groundwater hydrology, oceanography, and geochemistry as well as the classic areas of mineralogy, petrology, structural geology, stratigraphy and paleontology. Laboratories devoted to

geochronology, isotopes, clay mineral analysis, soils, paleomagnetism, and whole rock analysis, as well as the Allison Center (paleontology), support the graduate research program.

The San Diego area enjoys a mild climate which permits year round field activity. An interesting and diverse geological environment provides many opportunities for research in the local area. Many graduate students are supported in their work by grants and contracts from government and industry.

Admission to Graduate Study for M.S. Degree

All students must satisfy the general requirements for admission to classified graduate standing as described in Part Two of this bulletin. In addition, all students should satisfy the following requirements in order to achieve classified standing and enroll in graduate courses.

1. Have preparation in geological sciences, mathematics, chemistry, and physics deemed equivalent to the bachelor's degree in geological sciences at San Diego State University. Candidates whose preparation is deemed insufficient by the master's program committee will be required to complete specified courses in addition to the minimum 30 units required for the degree. Undergraduate grade point average should be at least 2.5, with a 2.85 in the last 60 units.
2. Have successfully completed all courses listed as deficiencies.
3. Have a minimum GRE General Test combined verbal and quantitative score of 1000. Students with a verbal score of less than 450 may be required to take a writing course.
4. Have a minimum grade point average of 3.0 in any courses taken as a postbaccalaureate student at San Diego State University.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Geological Sciences.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Geological Sciences

The following materials should be mailed or delivered to:

Department of Geological Sciences
(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1020

1. Department application available at: <http://www.geology.sdsu.edu/gradprogram/applicants.htm>;
2. Two letters of reference.

All student applications are evaluated competitively and no fixed numerical standards automatically qualify or disqualify a student for graduate study in the Department of Geological Sciences. Students will be admitted on the basis of merit in relation to space and faculty availability.

Geological Sciences

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as stated in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree (Major Code: 19141) (SIMS Code: 775301)

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin, and a graduate program consisting of 30 units of upper division and graduate courses selected from the geological sciences and closely related fields. This program must be approved by the graduate adviser.

A minimum of 18 units must be selected from 600- and 700-numbered courses in the Department of Geological Sciences. Graduate students are required to complete up to six units of Geological Sciences 797 Research, and three units of Geological Sciences 799A Thesis (Plan A) or three units of Geological Sciences 750, Research and Technical Writing (Plan B). Both Plan A and Plan B students are required to pass a final oral examination. With approval of the graduate adviser, students may include 12 units of approved upper division and graduate electives from acceptable courses offered in other related areas. No more than six units of the upper division electives may be Department of Geological Sciences courses; this requirement may be waived at the discretion of the graduate adviser in cases where the student's thesis committee chair determines more units are appropriate.

Students specializing in **Geophysics (SIMS Code: 775346)** or **Hydrogeology (SIMS Code: 775357)** are also required to include 15 units of specialization courses. The geophysics specialization must include at least two of the following courses: Geological Sciences 630, 690, or 691. The hydrogeology specialization must include Geological Sciences 675. In exceptional cases, this requirement may be waived at the discretion of the graduate adviser, provided a substitute course that enhances a coherent program in a specific professional area is included. The remaining nine units in the specialization must be selected from approved courses in the geological, mathematical, computational, physical, or engineering sciences, in consultation with the graduate adviser. The student is required to pass a final oral examination on the thesis.

Section II. Doctoral Program

WEBSITE: <http://sci.sdsu.edu/geology/jdp/opportunity/>

Geophysics

General Information

The cooperating faculties of the Department of Geological Sciences at San Diego State University and the Geophysics Curricular Program of the Scripps Institution of Oceanography Graduate Department at the University of California, San Diego offer a joint doctoral program in geophysics. The complementary specialties of the two groups result in two focus areas: earthquake science and applied geophysics. Each student's program is designed around one of these two areas.

Admission to Doctoral Study

Applicants for admission to the doctoral program in geophysics offered jointly by SDSU and UCSD must meet the requirements as outlined under General Requirements for Doctoral Degrees given in Part Four of this bulletin. Admission into the program requires acceptance by the graduate deans and by the participating departments at UCSD and SDSU. Candidates for admission should have a bachelor's or master's degree in physics, mathematics, earth science, or equivalent training; degrees in engineering science are also accepted. The student's preparation should include:

1. Mathematics through differential and integral calculus.
2. Physics, one year with laboratory (the course should stress the fundamentals of mechanics, electricity, magnetism, optics, and thermodynamics, and should use calculus in its exposition).
3. Chemistry, one year with laboratory.
4. An additional year of physics, chemistry, or mathematics.

Students seeking admission to the joint doctoral program in geophysics should electronically submit the university application available at <http://www.calstate.edu/apply>. Application deadlines and contact information for the joint doctoral program coordinator are available at <http://geology.sdsu.edu>.

In addition, all applicants must submit the following admissions materials separately to SDSU Graduate Admissions and to the Department of Geological Sciences, San Diego State University.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes or mailed directly from the issuing institution) from all postsecondary institutions attended (students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation).
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Geological Sciences

The following materials should be mailed as a complete package to:

Department of Geological Sciences

(Attention: Joint Doctoral Program Coordinator)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1020

1. Three letters of recommendation (in sealed and signed envelopes);
2. Curriculum vitae or resume;
3. Applicant's statement of purpose in seeking the Ph.D.

A scholastic average of B (3.0 /4.0) or better in upper-division courses, or prior graduate study, is required. Special consideration occasionally can be given to candidates with outstanding records who do not meet all preadmission criteria, but such students should expect to take additional courses to improve their backgrounds.

Satisfaction of the minimum requirements at San Diego State University or the Department of Geological Sciences does not guarantee admission to the doctoral program.

Specific Requirements for Doctoral Program

(Major Code: 19160) (SIMS Code: 775370)

Residency Requirements

After formal admission to the joint doctoral program, the student must spend at least one academic year in full-time residence on each of the two campuses. The definition of residence must be in accord with the regulations of UCSD and SDSU. Usually, the first year is spent at UCSD; the second and subsequent years at SDSU.

Advising Committee

Upon admission to the program, the joint doctoral graduate advisers of the two institutions will establish an advising committee for each student. The committee will consist of four faculty members, normally two from each campus. In consultation with the student, the committee will develop a course of study, including identifying academic deficiencies and recommending remedies for them. The advising committee will be the official advising group for the student until a joint doctoral committee has been chosen and recommended to the Graduate Divisions by the advising committee.

Language Requirement

There is no specific foreign language requirement for this program, but knowledge of a foreign language may be deemed necessary by the advising committee to successfully pursue the student's research goal. All students must be proficient in English.

Course Requirements

There is no single course of study appropriate to the geophysics doctoral program. Instead, the individual interests of the student will permit, in consultation with the advising committee, a choice of course work in earthquake science or applied geophysics, although certain core courses are usually taken during most of the first year. In the summer or early fall following the first year of study each student will take the departmental examination which is both written and oral. The foundation for this examination is laid by the core courses.

Departmental Examination

Doctoral candidates normally will be required to take a departmental examination not later than early in the second year of study. The examination will be oral and written. The examination tests the student's general preparation in geophysics and associated areas (e.g., geology, math, computer programming). The student will be required to demonstrate, in a quantitative and analytical manner, comprehension of required subject material and of the pertinent interactions. Part of the examination is based on the knowledge of a number of assigned journal articles. The oral examination includes a discussion of the student's research progress.

Qualifying Examinations

Joint Doctoral Committee

After the student has passed the departmental examination, a joint doctoral committee will be appointed. The joint doctoral committee must be formed before the student may proceed to the qualifying examination. The student will select a dissertation supervisor (major professor), who will chair the joint doctoral committee. The joint doctoral committee shall be composed of at least four members of the joint doctoral program faculty, two from the SDSU department and two from the UCSD department. The committee may be augmented as needed by an additional member from outside geophysics at UCSD or a member of the faculty at SDSU from outside of geophysics or, when authorized, another university. The joint doctoral committee shall be responsible for evaluating the dissertation proposal, administering and evaluating the qualifying examination, judging the dissertation, and administering and evaluating the dissertation defense.

Qualifying Examination

The joint doctoral committee will determine the student's qualifications for independent research by means of a qualifying examination which will be administered no later than the end of the third year. The qualifying examination is an exploration of the research project, its feasibility, originality and appropriateness. The student must write a concise report describing his or her proposed original research project and give an oral presentation to the joint doctoral committee covering the planned work and any progress to date. The student's joint doctoral committee will conduct the oral qualifying examination to ensure that the student possesses the full knowledge and competence required to carry out her or his dissertation research proposal. Passing the oral presentation and defense of this proposal signifies that the doctoral dissertation proposal is approved.

Upon satisfactory completion of the oral qualifying examination and prescribed coursework, the student must apply to the graduate dean at UCSD for advancement to candidacy. Upon payment of the candidacy fee to UCSD, and after approval by the graduate deans of both campuses, students will be notified of their advancement to candidacy by the UCSD graduate dean.

Dissertation

Following the successful completion of all prescribed coursework and qualifying examination, the major remaining requirement for the Ph.D. degree will be the satisfactory completion of a dissertation consisting of original research of publishable quality carried out under the guidance of the major professor. Approval of the completed dissertation by the joint doctoral committee implies that an organized investigation yielding substantial conclusions of interest which expand the frontiers of knowledge and understanding in the discipline has been carried out. Results must be reported in a manner demonstrating the ability of the candidate to effectively prosecute and report independent investigation.

The requirement for completing and filing the dissertation, including the number of copies required, will be decided jointly by the graduate deans and in accordance with regulations of the Graduate Divisions.

Final Examination

The final examination, organized and administered by the joint doctoral committee, shall consist of a dissertation defense, before the joint doctoral committee with the public invited.

Award of the Degree

The Doctor of Philosophy degree in geophysics will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both institutions.

Financial Support

The Department of Geological Sciences at SDSU has teaching assistantships and fellowships available on a competitive basis and research assistantships and internships are available from research grants and contracts or through industry contacts. All students applying for admission to the joint doctoral program will be considered for financial support.

Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral program, being available for direction of research and as departmental members of joint doctoral committees.

San Diego State University:

Committee Members: Day, Ma, Olsen, Rockwell

University of California, San Diego:

Committee Members: Agnew, Bock, Constable, Dorman, Fialko, Harding, Minster, Sandwell, Shearer, Vernon

Courses Acceptable for Master's and Doctoral Degree Programs in Geological Sciences (GEOL)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

GEOL 505. Imaging and GIS in Disaster Response (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 200 or enrollment in homeland security program.

Imaging and Geographic Information Systems applications in disaster management.

GEOL 508. Advanced Field Geology (4 or 6)

One lecture and three hours of laboratory plus 28 days in the field. For the option with six units: two additional weeks of field or laboratory work.

Prerequisite: Geological Sciences 306.

Investigation of individually assigned areas, preparation of geologic maps, geologic sections, and gathering other types of data, e.g., petrologic, geophysical, or paleontologic, as appropriate. Students are responsible for cost of food and transportation. Students must demonstrate the physical ability to adequately and safely perform fieldwork under varying weather conditions; in steep, uneven or rocky terrain; for long periods of time.

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 521. Petroleum Geology (3)

Prerequisite: Geological Sciences 336.

History of petroleum exploration; statistics of energy use; principles of well logging; theories of petroleum generation, migration, and accumulation; exploration and production techniques; case studies of important oil fields.

GEOL 530. Geochemistry (3)

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 324; credit or concurrent registration in Chemistry 201; Mathematics 124 or 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.

GEOL 538. Notable Historic Earthquakes (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 300.

Earthquake magnitude, fault source physics and rupture mechanisms, earthquake location and ground motion estimation, geotechnical aspects, earthquake triggering and geodesy.

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)

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 306 and Mathematics 124 or 150.

Theory of ground water flow. Exploration for and development of the ground water resource. Aquifer tests, water quality, and water resource management. Occurrence of water in alluvial, sedimentary, volcanic, plutonic, and metamorphic terrains.

GEOL 560. Earthquake Seismology (3)

Two lectures and three hours of laboratory.

Prerequisites: Mathematics 252, Physics 197. Recommended: Mathematics 342A.

Theory of seismic wave excitation, propagation, and recording. Methods of seismogram interpretation and analysis. Applications to tectonics and earthquake hazard analysis.

GEOL 580. Seismic Interpretation and 3D Visualization (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 306.

Computer-based seismic interpretation, mapping, and modeling in both 2D and 3D. Overview of basic seismic processing. Emphasis on industrial applications, both petroleum and shallow geotechnical.

GEOL 587. Volcanology (3)

Prerequisite: Geological Sciences 324.

Magma and magma chamber properties. Eruptive mechanisms, volcano types, and a variety of volcanic phenomena associated with Hawaiian, Strombolian, Plinian, Vulcanian, and hydrovolcanic eruptions. Volcanic phenomena applied to classic and historic eruptions. (Formerly numbered Geological Sciences 687.)

GEOL 596. Advanced Topics in Geology (1-4)

Prerequisite: Consent of instructor.

Advanced special topics in the geological 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 of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

GEOL 600. Seminar (1-3)

Refer to *Class Schedule* for lecture/laboratory format.

Prerequisite: Consent of instructor.

An intensive study in advanced geology. May be repeated with new content. Topic to be announced in the *Class Schedule*. Maximum credit six units applicable to a master's degree.

GEOL 630. Selected Topics in Geophysics (3)

Prerequisite: Consent of instructor.

Research topics in seismic, gravity, magnetic, electrical, and electromagnetic methods. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

GEOL 633. Quaternary Geology (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 514.

Quaternary climate, geochronometric dating and soil stratigraphy.

GEOL 635. Petrology of Terrigenous Rocks (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 336.

Thin-section and hand-specimen description and classification of sandstones, conglomerates, and mudrocks. Emphasis on mineralogy, provenance, diagenesis, and paleogeographic reconstructions.

GEOL 638. Advanced Notable Historic Earthquakes (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 300.

Earthquake magnitude, fault source physics and rupture mechanisms, earthquake location and ground motion estimation, geotechnical aspects, earthquake triggering and geodesy. Term project on a selected earthquake including computer-based analysis of source, mechanism, and location. Not open to students with credit in Geological Sciences 538.

GEOL 642. Neotectonics (3)

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 306 and 514.

Observation, interpretation and significance of late Quaternary crustal deformation.

GEOL 645. Advanced Structural Geology (3)

Prerequisite: Geological Sciences 306.

Topics in advanced structural geology in the light of petrographic, geophysical, and experimental data, combined with classic field observations.

GEOL 675. Groundwater Geochemistry (3)

Prerequisites: Chemistry 201 and Mathematics 150.

Processes affecting inorganic solutes in groundwater. Applications to groundwater geochemical evolution, weathering processes, and inorganic contaminant transport.

GEOL 690. Earthquake Physics I (3)

Prerequisite: Geological Sciences 560. Recommended: Mathematics 342B.

Structure and tectonics of fault zones as inferred from geological and geophysical observations. Stress state and frictional behavior of faults, stress interaction models, thermal, and hydrological properties of fault zones. Mechanics and energy budget of earthquakes.

GEOL 691. Earthquake Physics II (3)

Prerequisites: Geological Sciences 560 and 690. Recommended: Mathematics 342B.

Theoretical and numerical models of earthquake rupture and wave propagation, with applications to ground motion prediction and seismic hazard estimation. Collective behavior of fault networks, seismicity models, earthquake predictability; application to earthquake forecast models.

GEOL 750. Research and Technical Writing (3) Cr/NC

Prerequisite: Advancement to candidacy.

Research and technical report writing in geological sciences for students in Plan B.

GEOL 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of the department.

Supervised research in an area of geological sciences. Maximum credit six units applicable to a master's or Ph.D. degree.

GEOL 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the master's degree.

GEOL 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

GEOL 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

DOCTORAL COURSES**GEOL 897. Doctoral Research (1-15) Cr/NC/RP**

Prerequisite: Admission to doctoral program.

Independent investigation in general field of the dissertation.

GEOL 898. Doctoral Special Study (1-8) Cr/NC/RP

Prerequisite: Admission to doctoral program.

Individual study in field of specialization. Maximum credit eight units applicable to doctoral degree.

GEOL 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisite: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

German

IN THE DEPARTMENT OF EUROPEAN STUDIES
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Storm Hall 224A

TELEPHONE: 619-594-6313 / **FAX:** 619-594-8006

E-MAIL: german.coord@sdsu.edu

WEBSITE: <http://german.sdsu.edu>

Chair of Department: Clarissa Clò, Ph.D.

Faculty

Kristin Rebien, Ph.D., Associate Professor of German

Mary M. Wauchope, Ph.D., Associate Professor of German,
Emeritus

General Information

The Department of European Studies offers advanced coursework in German. Graduate courses in German may be used to fulfill requirements for advanced degrees in other departments with the approval of the student's graduate adviser.

Courses (GERMN)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

All upper division courses in German are taught in German unless otherwise stated.

GERMN 520. Modern German Literature (3)

Prerequisites: German 300 and 301.

Major authors and genres since Enlightenment.

GERMN 575. Seminar in German Studies (3)

Prerequisites: Two upper division German courses.

Directed research on topics in German studies. See *Class Schedule* for specific content. May be repeated with new title and content. Maximum credit six units.

GERMN 596. Topics in German Studies (3)

Prerequisites: German 300 and 301. **Proof of completion of prerequisites 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

GERMN 696. Topics in German Studies (1-3)

Prerequisites: Eighteen upper division units in German.

Intensive study in specific areas of German. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GERMN 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Eighteen upper division units in German and consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Gerontology

IN THE SCHOOL OF SOCIAL WORK
IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Hepner Hall 119
TELEPHONE: 619-594-6865 / **FAX:** 619-594-5991

Faculty

Melinda M. Hohman, Ph.D., Professor of Social Work,
Director of School

Jong Won Min, Ph.D., Professor of Social Work,
Associate Director of School

Mario D. Garrett, Ph.D., Professor of Social Work

Eunjeong Ko, Ph.D., Associate Professor of Social Work

Yawen Li, Ph.D., Associate Professor of Social Work

Assistantships

Graduate teaching and research assistantships in gerontology are available to a limited number of qualified students. Information regarding the availability of funds and the process for application may be obtained from the School of Social Work.

General Information

The Master of Science degree in gerontology is supported by interdisciplinary faculty from several departments. The program is administered by the School of Social Work. The primary goal of the Gerontology Graduate Program is to offer high-quality interdisciplinary education and training that focus on the core areas of gerontology such as theories of aging, aging policy, long-term care, research methodology, design, development, administration, and evaluation of programs for the aged. The program is committed to preparing students to enter positions in administration and management in a variety of organizations serving older adults. This goal will be accomplished by offering coursework and field experience aimed at providing the necessary knowledge and skills to encourage/promote gerontology competencies and evidence-based administration and management as related to older adults.

Admission to Graduate Study

The student must satisfy the general requirements for admission to the university with classified standing, as described in Part Two of this bulletin. Students whose preparation is deemed insufficient by the gerontology admissions committee may be admitted as conditionally classified and will be required to complete specific courses in addition to the minimum 36 units required for the degree. Students from other disciplines are encouraged to apply. Applicants should have a minimum undergraduate grade point average of 3.0 (on a 4.0 scale) during the last 60 semester units of undergraduate college/university coursework. The grade point average must be in concurrence with Division of Graduate Affairs requirements for admission. Admission requirements are outlined in the graduate application package for an advanced degree in gerontology at San Diego State University.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Social Work.

Graduate Admissions

Enrollment Services

San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
- Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Social Work

The following materials should be submitted by March 1 for the fall semester to:

School of Social Work

(Attention: Gerontology Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-4452

1. Three letters of reference in support of your application from academic references;
2. Personal statement outlining your goals, background, interests, and abilities;
3. Curriculum vitae or resume.

Advancement to Candidacy

All students must pass the general requirements for advancement to candidacy as described in Part Four of this bulletin. Advancement to candidacy is contingent upon classified graduate status, completion of 12 semester units with a minimum grade point average of 3.0, satisfactory completion of an oral examination with a minimum grade of B and approval of the Graduate Council. Advancement to candidacy will be conferred prior to graduation.

Specific Requirements for the Master of Science Degree

(Major Code: 21043) (SIMS Code: 551904)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the Master of Science degree as described in Part Four of this bulletin, the student must complete a minimum of 36 units. The program consists of 30 units of required core courses and six units of electives.

Core Curriculum Requirements. A minimum of 30 units is required in the following core courses:

GERO 520	Analysis of Programs for the Aging	3
GERO 605	Long-Term Care.....	3
GERO 690/ SWORK 690	Seminar in Research Methods for Social Work and Gerontology	3
GERO 700A GERO 740/ SWORK 740	Practicum (Cr/NC).....	3
SWORK 610	Advanced Seminar in Administration and Community Development in Social Work and Gerontology.....	3
SWORK 632	Computer Application in Practice for Social Work and Gerontology.....	3
SWORK 702	Social Work and Gerontology: Organizations and Communities.....	3
	Seminar in Selected Social Welfare Policy and Services.....	3

Plan A

GERO 799A Thesis (Plan A)..... 3 (Cr/NC/RP)

OR

Plan B

GERO 700B Practicum (Plan B)..... 3 (Cr/NC)

Electives. A minimum of six units of electives is required. Selected with the approval of the student's adviser, electives must include courses in gerontology or departments related to gerontology. Any gerontology graduate course or 500- to 700-level courses not taken for credit in the core curriculum qualify as electives. The breadth of courses available to supplement the core of required courses will be extensive, and draw on resources from across the university.

Gerontology

Plan A: Students who complete Plan A, Thesis option for the M.S. degree in gerontology must include Gerontology 799A (Thesis) in the 30-unit program, complete Gerontology 797 as one of the electives, and pass a final oral examination on the thesis.

Plan B: Students in Plan B must include Gerontology 700B to fulfill core requirements and pass a comprehensive written examination.

Courses Acceptable for Master's Degree Program in Gerontology (GERO)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

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 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 degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

GERO 605. Long-Term Care (3)

Prerequisite: Consent of instructor.

Issues and problems in a changing long-term care delivery system for older people in a multi-cultural society. Emphasis on frailty of the elderly, demand for affordable long-term care, and analysis of federal and state policies shaping the industry.

GERO 690. Seminar in Research Methods for Social Work and Gerontology (3)

(Same course as Social Work 690)

Research development, design, and methodology. Application to social work and gerontology in testing theories, advancing practice knowledge, and decision-making.

GERO 696. Contemporary Topics in Gerontology and Geriatrics Seminar (3)

Prerequisite: A graduate level course in gerontology.

Areas of gerontology and geriatrics that make an immediate impact on the quality of life and lifestyles of the elderly. To include diverse life situations of older people. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GERO 700A-700B. Practicum (3-3) Cr/NC

Prerequisite: Consent of adviser.

Supervised field placement in public or private setting. Application of gerontological theory, policy, objectives, principles, and skills in service to individuals, families, groups, organizations, and communities.

GERO 740. Advanced Seminar in Administration and Community Development in Social Work and Gerontology (3)

(Same course as Social Work 740)

Prerequisites: Social Work 632 and concurrent registration in Gerontology 700A or Social Work 755.

Human services program design, strategic planning, marketing, organizational performance management, human resource management, and development of grant proposals.

GERO 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of instructor.

Research in an area of gerontology. Maximum credit six units applicable to a master's degree.

GERO 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of adviser.

Individual study. Maximum credit six units applicable to a master's degree.

GERO 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the master's degree.

GERO 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

GERO 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

History

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 588

TELEPHONE: 619-594-5262 / **FAX:** 619-594-2210

WEBSITE: <http://history.sdsu.edu/>

Faculty

Andrew Wiese, Ph.D., Professor of History, Chair of Department

Pierre Asselin, Ph.D., Professor of History,

The Dwight E. Stanford Chair in American Foreign Relations

Edward J. Beasley, Ph.D., Professor of History

Edward J. Blum, Ph.D., Professor of History

Kathryn J. Edgerton-Tarpley, Ph.D., Professor of History

Sarah S. Elkind, Ph.D., Professor of History

Joanne M. Ferraro, Ph.D., Albert W. Johnson Distinguished

Professor of History, Emeritus

Eve Kornfeld, Ph.D., Professor of History [Senate Distinguished Professor]

Mathew S. Kuefler, Ph.D., Professor of History

Pablo E. Ben, Ph.D., Associate Professor of History

David P. Cline, Ph.D., Associate Professor of History

Stephen A. Colston, Ph.D., Associate Professor of History, Emeritus

Paula S. De Vos, Ph.D., Associate Professor of History (Graduate Adviser)

Angel D. Nieves, Ph.D., Associate Professor of History

Thomas P. Passananti, Ph.D., Associate Professor of History

Walter D. Penrose, Ph.D., Associate Professor of History

Elizabeth Ann Pollard, Ph.D., Associate Professor of History [Senate Distinguished Professor]

John C. Putman, Ph.D., Associate Professor of History

Chiou-Ling Yeh, Ph.D., Associate Professor of History

Annika E. Frieberg, Ph.D., Assistant Professor of History

Ranin Kazemi, Ph.D., Assistant Professor of 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 current appointee to the chair is Dr. Pierre Asselin, a distinguished scholar-teacher who is an expert on U.S. interventions in the Third World, Southeast Asia, and the global Cold War. He is a leading international authority on the Vietnam War and regularly travels to Vietnam for research.

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 was held by Dr. Lawrence Baron, Professor Emeritus, and a distinguished scholar of European intellectual history and Holocaust studies, from 1988 until 2012.

Master of Arts Degree in History

General Information

The Department of History offers graduate study leading to the Master of Arts degree in history.

The Master of Arts degree is designed to provide advanced training for (1) students who plan to terminate their graduate studies at the master's level, (2) those who anticipate further study leading to a doctoral degree in history or related fields, and (3) those who plan to teach history at the secondary or community college levels.

Research facilities include a substantial library of well over one million titles and an impressive periodical collection. The library

is the depository for the documents of the United States and the state of California, and receives all publications of the United Nations and the Organization of American States. The library also houses 1,500 linear feet of manuscript materials as well as audiotapes, films, oral histories, and photographs of the greater San Diego area. The College of Arts and Letters houses the Social Science Research Laboratory which includes a well-equipped data processing center. The San Diego Historical Society and the San Diego Public Library contain many manuscript collections pertinent to local history. Located north of San Diego is the National Archives and Records Administration at Laguna Niguel.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. As an additional requirement, the student must have completed a bachelor's degree with an undergraduate major in history or have taken enough units in history and related fields to demonstrate sufficient preparation for the program. The minimum grade point average required for application to the M.A. program in history is 2.85 in an acceptable earned baccalaureate degree or in the last 60 semester (90 quarter) units attempted and 3.0 in the major (not necessarily history), plus a satisfactory score on the GRE General Test. Applicants holding an acceptable post-baccalaureate degree earned at an institution accredited by a regional accrediting association also meet minimum qualifications.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of History.

See http://history.sdsu.edu/graduate_program/how_to_apply.htm for information on application instructions and materials.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as stated in Part Four of this bulletin, as well as the specific requirements of the department. All students should consult the graduate adviser.

Specific Requirements for the Master of Arts Degree in History

(Major Code: 22051) (SIMS Code: 113301)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of 30 units which includes a major consisting of at least 24 units in history from courses listed below as acceptable for the master's degree programs, at least 21 units of which must be in 600- and 700-numbered courses. Students may elect either Plan A, requiring a thesis, or Plan B, requiring a comprehensive written examination in two fields of history chosen in consultation with the graduate adviser. For Plan B, faculty meet with the student for a one-hour oral assessment one week following the examination if further consultation is necessary.

Required courses are History 601, 665; nine units selected from History 620, 630, 640, 650, or 680; History 797; and History 799A for those students electing Plan A. Students approved for Plan B shall meet the same course requirements as those enrolling in Plan A, except that they must enroll in History 795 (three units) and one additional three-unit history course numbered from 620 to 680 in lieu of History 797 and 799A.

History

Candidates for this degree must demonstrate knowledge of a relevant foreign language. Course selection and programs must be approved by the graduate adviser prior to the student's registration.

Courses Acceptable for Master's Degree Program in History (HIST)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NOTE: Courses for Field (A) Thematic, Comparative, and Interdisciplinary History; or Field (B) The Ancient Through Early Modern World; or Field (C) The Modern World, are identified in the course title as (A), (B), or (C).

HIST 500. Topics in Ancient History (A) (3)

Prerequisite: Upper division or graduate 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 501. History of Ancient Near Eastern Civilizations (B) (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 (B) (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 (B) (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 Dark Ages (B) (3)

(Same course as Humanities 504)

Europe and the Mediterranean, sixth to eleventh centuries C.E. through various approaches: political, economic, social, and cultural. Topics include the barbarians and Vikings, the Byzantine, Arab, and Holy Roman Empires, the Norman Conquest, Charlemagne, Beowulf, feudalism, and serfdom.

HIST 505. The Later Middle Ages (B) (3)

Europe and the Mediterranean 1100-1450 C.E. through various approaches: political, economic, social, and cultural. Development of kingdoms of western Europe and relationship to Byzantine empire and other states.

HIST 506. The Renaissance (B) (3)

(Same course as Humanities 506)

Intellectual, artistic, social, and economic transformation in Europe from fourteenth to seventeenth centuries.

HIST 507. The Reformation (B) (3)

(Same course as Religious Studies 507)

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 508. The Fall of the Roman Empire (B) (3)

Prerequisite: Upper division or graduate standing.

History of Mediterranean region between third and sixth centuries C.E. Changes in society, politics, economics, the military, gender, sexuality, religion, literature, art, archaeology, and law. Competing perceptions of the period as one of "fall" versus one of "transformation."

HIST 509. British Century: Waterloo to World War I (C) (3)

Prerequisite: Upper division or graduate standing.

History of England, 1815-1914, to include industrial supremacy; struggles over urban problems, reform, democratization, labor organization, national self-image; interplay of liberalism and collectivism; sources of social stability and instability; women's rights; jingoism; coming of World War I.

HIST 512A. The Great War: A Turning Point in European History (C) (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 (C) (3)

Europe in the age of dictatorship, world war, decline, and recovery.

HIST 514. History of Science: From Revolution to Evolution (A) (3)

Prerequisite: Upper division or graduate standing.

Development of early modern European science. Origins of Western concept of "science," Greco-Roman and Arabic roots of science, impact of Renaissance humanism and voyages of exploration on Scientific Revolution, and imperial context of evolutionary theories and scientific racism.

HIST 516. Imperialism and the Colonial Experience (A) (3)

Prerequisite: Upper division or graduate standing.

Imperialism and colonialism as these transformed both colonizing and colonized peoples, e.g., modernization, racism, Orientalism, multi-ethnic, Great Power competition, anti-colonial resistance, and nationalism.

HIST 527. The Holocaust in Feature Films (A) (3)

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 528. Social History of Early Modern Europe (B) (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 532. Topics in Early American History (B) (3)

Prerequisites: Upper division or graduate 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 533. Antebellum America (C) (3)

Prerequisite: Upper division or graduate standing.

Westward expansion and movement, market revolution, democratic politics, revivalism, slavery, and women's rights.

HIST 534. Civil War and Reconstruction (C) (3)

Prerequisite: Upper division or graduate standing.

Civil War and Reconstruction, emphasizing political affairs and role of Abraham Lincoln.

HIST 535. The Age of Roosevelt (C) (3)

The United States in Depression, War, and Cold War.

HIST 536. The United States Since World War II (C) (3)

Major foreign and domestic issues confronting the United States, and the government policies and popular movements generated in response.

HIST 537. Star Trek, Culture, and History (C) (3)

Prerequisite: Upper division or graduate standing.

Explores relationship between Star Trek's several television series, movies, novels, and the larger historical and cultural context of post-World War II America. Themes include race, gender, sexuality, foreign policy, terrorism, religion, and politics.

HIST 539. Topics in the History of the American West (C) (3)

Prerequisites: Upper division or graduate 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 (C) (3)
(Offered only at IVC)

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 544A. Early American Foreign Relations (C) (3)

Development of American foreign relations from Colonial Period to the Spanish-American-Filipino War.

HIST 544B. Modern American Foreign Relations (C) (3)

Development of American foreign relations since 1900.

HIST 545. Constitutional History of the United States (C) (3)

Development of American constitutional ideals and institutions from colonial period to the present. Examines historical context of significant legal issues and constitutional cases.

HIST 548. Race and Ethnicity in United States History (A) (3)
(Same course as Chicana and Chicano Studies 548)

Prerequisite: Upper division or graduate standing.

Race and ethnicity in America from colonial period through twentieth century to include historical construction of identity; colonization, slavery, state formation; labor, immigration, politics of whiteness; applicability of black/white binary of a multiethnic society.

HIST 550. Colonial Mexico (B) (3)

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 551. Modern Mexico (C) (3)

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 556. History of Brazil (C) (3)
(Same course as Latin American Studies 556)

Prerequisite: Upper division or graduate standing.

Economic, political, and social history of Brazil from precolonial era to present. Democratic and dictatorial rule, industrialization, populism, race and racism, and slavery.

HIST 557. Dictatorships and Human Rights in Latin America (C) (3)

Prerequisite: Upper division or graduate standing.

Cold War tensions; United States-Latin American relations; Cuban Revolution; rise of dictatorial rule in Argentina, Brazil, Chile, Guatemala; transition to democracy since the 1980s.

HIST 558. Latin America in World Affairs (C) (3)

History of Latin America's political and economic relations with Europe, the Soviet Union, the United States, and the Third World.

HIST 566. Ancient and Imperial China (B) (3)

Prerequisite: Upper division or graduate standing.

Chinese history before 1600 CE. Confucianism, Daoism, Legalism; emperors and evolution of Chinese state; gender and sexuality; Buddhism and daily life along Silk Route; Song technological and commercial revolution; Mongol invasions; Ming voyages; China's role in pre-modern world history.

HIST 567. China in Revolution (C) (3)

China's history during the tumultuous nineteenth and twentieth centuries. China's forced encounter with Western imperialism, rural, and urban social movements. Impact of Mao's Revolution on everyday life in China, successes, limitations of China's recent reform policies.

HIST 570. Modern Japan: From Samurai to Sony (C) (3)

Prerequisite: Upper division or graduate standing.

Japanese history from 1600 to present. Late-samurai period; nineteenth century industrialization and imperialism; Japan in World War II: Nanjing, Pearl Harbor, Hiroshima; foundations of post-war "economic miracle"; gender relations, anime, and identity in contemporary Japan; Japan's role in twenty-first century world.

HIST 574. Arab-Israeli Relations, Past and Present (C) (3)

Arab-Israeli conflict and diplomacy over Palestine from perspectives of Zionism, Arab nationalism, and Great Power relations from nineteenth century to present.

HIST 580. Topics in the History of War and Violence (A) (3)

Prerequisite: Upper division or graduate 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 (A) (3)

Prerequisite: Upper division or graduate 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 (A) (3)

Prerequisite: Upper division or graduate standing.

Variable topics in 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 (A) (3)

Prerequisite: Upper division or graduate 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 (A) (3)

Prerequisite: Upper division or graduate 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 585. History of the Sixties (C) (3)

Prerequisite: Upper division or graduate 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.

HIST 586. Topics in World History (A) (3)

Prerequisite: Upper division or graduate standing.

Major historical problems, themes, or topics from global, chronological, and geographical perspectives of world history to include frontiers, food and famine, violence and warfare, science, religion and magic, the Atlantic world, medieval era. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units. (Formerly numbered History 470.)

HIST 596. Selected Studies in History (A) (B) (C) (1-4)

Topics in various fields of history, such as biography, war, science, technology, urbanization, minority groups, immigration, and capitalism. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

NOTE: All graduate courses in the Department of History have a prerequisite of 12 units of upper division courses in history, or consent of the instructor.

HIST 601. Seminar in Historical Methods (3)

Historical methodologies, historiography, and critical analysis.

HIST 620. Directed Readings in European History (3)

Prerequisite: Consent of instructor.

Selected readings in historical literature and primary sources in a designated area of European history. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

HIST 630. Directed Readings in United States History (3)

Prerequisite: Consent of instructor.

Selected readings in historical literature and primary sources in a designated area of United States history. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

HIST 640. Directed Readings in Latin American History (3)

Prerequisite: Consent of instructor.

Selected readings in historical literature and primary sources in a designated area of Latin American history. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

HIST 650. Directed Readings in Asian History (3)

Prerequisite: Consent of instructor.

Selected readings in historical literature and primary sources in a designated area of Asian history. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

HIST 665. Seminar in History (3)

Prerequisites: History 601; six units selected from History 620, 630, 640, 650, or 680, three units of which may be taken concurrently; six additional units in history appropriate to student's program; consent of instructor.

Directed research on topics selected from a designated area of history. Maximum credit six units applicable to a master's degree.

HIST 680. Directed Reading in Selected Topics (3)

Prerequisite: Consent of instructor.

Selected readings in comparative, interdisciplinary, and topical history. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

HIST 696. Special Topics in History (1-3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of history. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

HIST 795. Area Studies in History (3) Cr/NC

Prerequisite: Advancement to candidacy.

Preparation for the comprehensive examinations in two fields of history for those students taking the M.A. under Plan B. Maximum credit three units applicable to a master's degree.

HIST 797. Research (3) Cr/NC/RP

Prerequisites: Advancement to candidacy and written approval of the History Department graduate adviser.

Independent research in a specialized subject in history.

HIST 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

HIST 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

HIST 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

HIST 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Homeland Security

IN THE COLLEGE OF SCIENCES

OFFICE: Chemical Sciences Laboratory 120

TELEPHONE: 619-594-5960

WEBSITE: <http://homelandsecurity.sdsu.edu>

Associated Faculty for Homeland Security

Eric G. Frost, Ph.D., Professor of Geological Sciences,
Co-Director of Homeland Security Program

Lance W. Larson, Ph.D., Co-Director of Homeland
Security Program

Cathie J. Atkins, Ph.D., Professor of Psychology and Associate
Dean for Academic and Faculty Affairs of the College of Sciences

Stephanie Kay Brodine, M.D., Professor of Public Health, Division
Head of Epidemiology and Biostatistics

Murray E. Jennex, Ph.D., Professor of Management Information
Systems

David L. Kimbrough, Ph.D., Professor of Geological Sciences

Stanley R. Maloy, Ph.D., Professor of Biology and Associate
Vice President for Research and Innovation of Graduate and
Research Affairs

Khaleel Mohammed, Ph.D., Professor of Religious Studies

Cezar M. Ornatowski, Ph.D., Professor of Rhetoric and Writing
Studies

Patrick J. Papin, Ph.D., Professor of Physics, Emeritus

Kathleen D. Sweetser, Ph.D., APR+M, Professor of Journalism and
Media Studies

William G. Tong, Ph.D., Albert W. Johnson Distinguished
Professor of Chemistry and Biochemistry

Enrico A. Marcelli, Ph.D., Associate Professor of Sociology

Amy S. Schmitz Weiss, Associate Professor of Journalism and
Media Studies

Aaron C. Elkins, Ph.D., Assistant Professor of Management
Information Systems

General Information

The homeland security program emphasizes international and collaborative approaches in the educational process and study abroad is required for all students in the program. Semester, short-term (one to two weeks), and summer study abroad opportunities are provided by the college and university in countries depending on the interests of students. Topics include art and antiquities smuggling and fraud, collaboration, communications, counter human trafficking, law enforcement, locations of major disasters, nation building, opportunities to assist other countries in their efforts with disaster response, security diplomacy, technology, and other interest areas. Study abroad is a research component for the thesis or thesis project and develops student credibility and capability for eventual career advancement.

Of particular note, the homeland security program sponsors collaborative study abroad efforts in Mexico that builds positive relationships with government, non-government, and the private-sector in Baja California who work together to make the border region a productive, secure, and vibrant partnership. Working with Mexican officials to solve shared problems offers opportunities to build solutions to complex problems as models for problems and opportunities worldwide.

Contact a homeland security academic adviser for evaluation and approval of a program of study and information on study abroad opportunities. The primary focus is to build classes, research, and study abroad for a career preparation portfolio.

Admission to Graduate Study

The homeland security program accepts admission for both the fall and spring semesters. The application deadlines are posted on the website at <https://hsec.sdsu.edu/admission> or can be obtained from the homeland security program directors or graduate adviser. All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, students must demonstrate sufficient preparation for the program.

This may include a bachelor's degree in sciences, engineering, law enforcement, international security, public policy, or a related discipline providing educational preparation for a career in homeland security. The degree must be from an accredited institution or indicate completion of equivalent academic preparation as determined by the Graduate Dean. Evaluation of a student's transcript will be made on an individual basis by the admissions committee to determine whether evidence of sufficient preparation can be demonstrated. A student whose preparation is deemed insufficient by the admissions committee may be admitted as conditionally classified and will be required to complete specified courses in addition to the minimum of 30 units required for the degree.

The grade-point average required for admission to the master's program in homeland security is 2.85 in undergraduate coursework plus satisfactory scores on the verbal and quantitative sections of the GRE. An interview by the admissions committee may also be required.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the homeland security program. For information about specific admissions requirements, visit <http://hsec.sdsu.edu/admission>.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Homeland Security Program

The following materials should be submitted electronically to the homeland security program admission committee. Submission instructions are available at <http://hsec.sdsu.edu/admission>.

1. Two letters of recommendation from persons in a position to judge academic ability (in sealed, signed envelopes);
2. One letter of recommendation from a person in a position to judge professional ability and potential (in sealed, signed envelope);
3. A two-page maximum personal statement giving reasons for choosing homeland security as a degree objective;
4. A two-page maximum personal statement summarizing applicant's qualifications, skill sets, and life experiences as they apply to the homeland security degree;
5. A current resume or curriculum vitae.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 22102) (SIMS Code: 779001)

In addition to meeting the requirements for the Master of Science degree, as described in Part Four of this bulletin, students must complete 30 units of coursework in an officially approved course of study as outlined below. Students must earn a minimum grade point average of B (3.0) in the master's program and no less than a C in each course. Students may meet the culminating experience requirement through Plan A by completing H SEC 799A or through Plan B by completing H SEC 790 and successfully passing a comprehensive examination.

Graduate Program (30 units)

I. Core Courses (15 units)

H SEC 601	Seminar in Homeland Security.....	3
H SEC 602	Seminar in Science, Technology, and Homeland Security	3
H SEC 603	Seminar in Emergency Preparedness and Response	3
H SEC 604	Seminar in Law, Society, and Homeland Security	3
H SEC 695	Practicum in Homeland Security	3

II. Homeland Security electives: Six units in consultation with program adviser.

III. Non-Homeland Security electives: Three units in consultation with program adviser.

IV. Study Abroad (3 units). All homeland security graduate students are required to complete a homeland security-related study abroad experience. To meet this requirement, students must complete one of the following with the pre-approved and written consent of the program adviser:

1. A CSU Study Abroad Program;
2. An SDSU Exchange Program;
3. An SDSU Semester Abroad Program;
4. An SDSU Travel Study Program;
5. A homeland security practicum, special topics, special study, or research conducted abroad.

See the homeland security study abroad guide located in the homeland security Blackboard homeroom and the program adviser to make arrangements to meet the study abroad requirement.

V. Plan A or Plan B (3 units). Students who complete Plan A, thesis or project option must include H SEC 799A in their program of study. Students who complete Plan B, non-thesis option must include H SEC 790 in their program of study and pass a comprehensive examination.

International Security and Trade Certificate

(Offered through the College of Extended Studies)

(SIMS Code: 779011)

The certificate program in international security and trade provides the intellectual and practical context for linking enhanced trade across international borders such as the United States-Mexico border with enhanced security. By using technology, information sharing, collaboration, and policy changes to enhance public-private partnerships between the trade and security communities on both sides of the border, this program is designed to help federal law enforcement, such as U.S. Customs and Border Protection, to redefine borders as zones of major economic productivity and enhanced security from the success of business and government working together for the citizens of both countries.

A student wishing to be admitted to this certificate program must meet the General Admission Requirements as described in Part Two of this bulletin. Students must meet the professional, personal, scholastic, and other standards prescribed by the appropriate department and the Graduate Council. Participation in border-related professional activities such as U.S. Customs and Border Protection, professional trade organizations, corporate groups involved in international trade, and government leaders from both sides of the border or globally is required.

Required courses (12 units):

H SEC 610	Seminar in International Security and Trade	3
H SEC 611	Seminar in Earth Systems, International Security and Trade	3
H SEC 612	Seminar in Cyber Security and Trade	3
H SEC 614	Seminar in International Law Enforcement for Trade and Security	3

Students must earn a 3.0 grade point average in these courses with no less than a C in any course. Courses taken for this certificate program will not apply towards the master's degree program in homeland security.

For more information, contact the program adviser, Eric Frost, Director, homeland security graduate program, eric.frost@mail.sdsu.edu.

Courses Acceptable for Master's Degree Program in Homeland Security (H SEC)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

H SEC 601. Seminar in Homeland Security (3)

Prerequisite: Classified graduate standing.

Domestic, national security, and foreign policies as they relate to prevention, deterrence, preemption, defense against, and response to terrorist attacks and other man-made and natural critical incidents and emergencies on local, regional, national, and international levels.

H SEC 602. Seminar in Science, Technology, and Homeland Security (3)

Prerequisite: Classified graduate standing.

Interrelationship of technology and science to homeland security policy. Use of technology and science for decision-making and collaboration. Ethical issues associated with application of technology and science to security.

H SEC 603. Seminar in Emergency Preparedness and Response (3)

Prerequisite: Classified graduate standing.

Practices of emergency management and response in civilian and military settings. Historical development of management of and response to emergencies and critical incidents. Interrelationship of public, private, and non-profit sectors on local, regional, national, and international levels.

H SEC 604. Seminar in Law, Society, and Homeland Security (3)

Prerequisite: Classified graduate standing.

Role and function of law related to homeland security on domestic and international levels. Historical development of ideas and rules of homeland security-related law and their relation to domestic and international legal, social, and political structures. Interrelationship of security, human, and civil rights.

H SEC 610. Seminar in International Security and Trade (3) (Offered only in the College of Extended Studies)

Linking global trade and security as complementary activities, especially at the US-Mexico border. Integrating technology, sensors, computing, and government regulations to a common goal. Global international trade optimization.

H SEC 611. Seminar in Earth Systems, International Security and Trade (3) (Offered only in the College of Extended Studies)

Dynamic Earth systems can alter the flow of people, goods, and services. Raw materials and manufactured products is key to global trade and security. International trade optimization in a cross-disciplinary mode.

H SEC 612. Seminar in Cyber Security and Trade (3) (Offered only in the College of Extended Studies)

Cyber security, warfare, and espionage as they relate to international trade and security. Enabling and protecting trade during disasters or against criminal organizations.



H SEC 614. Seminar in International Law Enforcement for Trade and Security (3)

(Offered only in the College of Extended Studies)

Law enforcement training and planning to fulfill unique missions surrounding trade and security in an emerging world of asymmetric threats and globalization. Collaboration, information sharing, intelligence, threat analysis in public and private sectors.

H SEC 690. Seminar (3)

Prerequisite: Classified graduate standing.

Intensive study in specific areas of homeland security on themes such as intelligence, domestic and international law and security, GIS and security, sensors and security, privacy and security. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

H SEC 695. Practicum in Homeland Security (3)

Prerequisite: Classified graduate standing.

Practical exercises related to homeland security. Cooperative exercises with first responders, homeland security officials, and/or non-governmental organizations on local, regional, national, and/or international level. Maximum credit three units applicable to a master's degree.

H SEC 696. Special Topics in Homeland Security (1-3)

Prerequisite: Classified graduate standing.

Study in specific areas of homeland security. May be repeated with new content with the approval of graduate adviser. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

H SEC 790. Directed Readings in Homeland Security (3) Cr/NC

Prerequisites: Advancement to candidacy and Plan B (non-thesis option).

Preparation for the comprehensive examination. For use in conjunction with Plan B (non-thesis option) only. Maximum credit three units of Homeland Security 790, 797, or 798 applicable to a master's degree.

H SEC 797. Research (1-3) Cr/NC

Prerequisites: Classified graduate standing and consent of instructor.

Supervised research in an area of homeland security. Maximum credit three units of Homeland Security 790, 797, or 798 applicable to a master's degree.

H SEC 798. Special Study (1-3) Cr/NC

Prerequisites: Classified graduate standing and consent of instructor.

Individual study, generally for thesis research. Maximum credit three units of Homeland Security 790, 797, or 798 applicable to a master's degree.

H SEC 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the master's degree.

H SEC 799B. Thesis or Project (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

H SEC 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion of degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Hospitality and Tourism Management

IN THE L. ROBERT PAYNE SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT
IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Professional Studies and Fine Arts 436B

TELEPHONE: 619-594-5110 / **FAX:** 619-594-4443

WEBSITE: <http://mastershtm.sdsu.edu>

Director of School: Carl Winston

Director of Graduate Program: J. Jeffrey Campbell

Faculty

Lawrence A. Beck, Ph.D., Professor of Hospitality and Tourism Management

Mark R. Testa, Ph.D., Professor of Hospitality and Tourism Management

Jess Ponting, Ph.D., Associate Professor of Hospitality and Tourism Management

Vinod Sasidharan, Ph.D., Associate Professor of Hospitality and Tourism Management

Katherine A. Spilde, Ph.D., Associate Professor of Hospitality and Tourism Management

Alana K. Dillette, Ph.D., Assistant Professor of Hospitality and Tourism Management

Lori J. Sipe, Ph.D., Assistant Professor of Hospitality and Tourism Management

Master of Science Degree in Hospitality and Tourism Management

(Offered through the College of Extended Studies)

General Information

The L. Robert Payne School of Hospitality and Tourism Management offers a program of study leading to the Master of Science degree in hospitality and tourism management (HTM). This program is designed for upwardly mobile industry professionals desiring additional professional and advanced education to proceed to the next level of leadership as a director, general manager, or senior leader within a hospitality, tourism, or recreation organization or agency.

The degree curriculum focuses on the development of analytical, strategic leadership, and administrative/organizational skills specific to the industry and is designed to be innovative, unique, and forward thinking. A blended method of instruction using intensive, on-campus instruction complemented by online teaching and off-campus experiential activities and projects is specifically designed for professionals who wish to continue their education while maintaining their current positions within the industry. The program is also supported by six research centers and institutes to include the Center for Hospitality and Tourism Research; Sycuan Institute on Government Gaming; Center for Global Gaming Research; Institute for Meetings and Events; Center for Surf Research; and the Institute for Leisure and Tourism Management.

Admission to Degree Curriculum

In addition to meeting the criteria for admission to the university, applicants must also demonstrate significant experience in management-level positions in hospitality, recreation, or tourism organizations.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Hospitality and Tourism Management program.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE or GMAT scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Hospitality and Tourism Management Program

The following materials should be mailed or delivered to:

Hospitality and Tourism Management Admissions Committee
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-4531

1. Two letters of recommendation from persons in a position to judge academic ability (in sealed, signed envelopes);
2. One letter of recommendation from a person in a position to judge professional ability and potential (in sealed, signed envelope);
3. A two-page maximum personal statement giving reasons for choosing hospitality and tourism management as a degree objective;
4. A two-page maximum personal statement summarizing applicant's qualifications, skill sets, and life experiences as they apply to the hospitality and tourism management degree.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 05081) (SIMS Code: 663120)

The Master of Science degree in Hospitality and Tourism Management is operated by the L. Robert Payne School of Hospitality and Tourism Management and is a specialized approach to graduate education for industry executives. The program is designed especially to meet the needs of mid-career executives who desire the necessary educational acumen for managing complex organizational systems in the hospitality, recreation, and tourism industry. Students in the program have an average of five to fifteen years of full-time professional work experience and four to eight years of managerial or equivalent experience in the hospitality, recreation, and/or tourism industry, and bring a wealth of knowledge and industry experience to the classroom. The program allows the faculty to tailor or customize the curricular content to meet student needs for various industry segments based on an initial appraisal or assessment completed prior to registering in classes. New students accepted for the M.S. degree in hospitality and tourism management are fully matriculated in the university and meet all university requirements as established by the Graduate Division. The degree is a 17-month program utilizing a blended instructional model in which students complete courses offered in an online format and also in intensive face-to-face sessions during residency periods on-campus, which are 7 days in length and offered at the beginning and conclusion of the program. The fee structure is unique to the program and unrelated to the usual San Diego State University fee schedule. Students should contact the L. Robert Payne School of Hospitality and Tourism Management

office for a program calendar, *Class Schedule*, and fee summary. In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, students must complete an approved program of study containing 30 units of 600- and 700-numbered courses. These courses will be offered in a pre-determined pattern for entering student cohorts. No transfer courses and no substitute courses are accepted. The official programs of all students in any one cycle are identical. Advancement to candidacy requires completion of at least 12 units of coursework listed on the official program of study with a minimum grade point average of 3.0 (B).

Courses Acceptable for Master's Degree Program in Hospitality and Tourism Management (HTM)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSE

HTM 596. Selected Topics in Hospitality and Tourism Management (1-3)

Prerequisite: Upper division or graduate standing.

Selected topics in hospitality, tourism, and/or tribal gaming management. 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

HTM 601. Leadership Explorations and Applications in HTM (3).

Prerequisite: Admission to M.S. program in hospitality and tourism management.

Concepts, theories, and techniques of leadership as applied to hospitality, tourism, and recreation organizations, and businesses. Experience in teamwork, interpersonal networks, managing change and conflict, controlling environmental factors.

HTM 602. Theoretical Foundations of Leadership and Management in HTM (3)

Prerequisite: Admission to M.S. program in hospitality and tourism management.

Directed reading and discussion of textual materials designed as an underpinning for future coursework and analytical projects pertaining to leadership and management in the hospitality, tourism, and recreation professions.

HTM 651. Financial Analysis in HTM (3).

Prerequisites: Hospitality and Tourism Management 601 and 602.

Financial decision-making in a hospitality/tourism/recreation context to include analysis of financial statements, capital projects, deploying capital effectively, asset management, battling marginal compression, return on investment, optimizing return performance. Case studies and projects provide practical experience.

HTM 653. Leading in Complex Human Systems in HTM (4).

Prerequisites: Hospitality and Tourism Management 601 and 602.

Human side of leadership with a focus on individuals, teams, and networks in interdependent and complex organizational systems in hospitality and tourism management. Investigates adaptive leadership, culture development, and performance improvement within the context of organizational development and change.

HTM 655. Twenty-First Century Marketing in HTM (3).

Prerequisites: Hospitality and Tourism Management 601 and 602.

Advanced concepts and theories of hospitality and tourism marketing in the context of the fast-evolving sub-field of services marketing. Application of advanced marketing strategies to a variety of HTM businesses and organizations nationally and internationally.

HTM 680. Mastering Technology in an HTM Operational Setting (3)

Prerequisites: Hospitality and Tourism Management 651, 653, 655.

Systems, techniques, strategies, and foundations of technology in hospitality, tourism, and recreation businesses and organizations with emphasis on performance metrics and system adaptability. Project oriented coursework with opportunities for system analysis, integration, and design.

HTM 682. Sustainability in Hospitality, Tourism, and Recreation Organizations (2)

Prerequisites: Hospitality and Tourism Management 651, 653, 655.

Development of a comprehensive sustainability management system incorporating marketing and communication, goal setting, developing performance indicators and metrics, benchmarking, and strategies for ongoing, measurable, sustainability performance improvement.

HTM 690. Systems Problems Resolution in HTM (3)

Prerequisites: Hospitality and Tourism Management 651, 653, 655.

Project oriented course on solving real problems in hospitality, tourism, and recreation organizations and businesses.

HTM 696. Special Topics in Hospitality and Tourism Management (1-3)

Prerequisite: Classified graduate standing.

Study in specific areas of hospitality and tourism management. May be repeated with new content with the approval of graduate adviser. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

HTM 780. Seminar: Strategy Development and Critical Analysis in HTM (3)

Prerequisites: Hospitality and Tourism Management 680, 682, 690.

Case study analysis requiring command of all previously delivered program course material to include data analysis, effective teamwork and leadership, and overall organizational assessment.

HTM 790. Directed Readings in Hospitality, Tourism, and Recreation Management (3) Cr/NC

Prerequisites: Hospitality and Tourism Management 680, 682, 690, and advancement to candidacy.

Preparation for the comprehensive examination for students in Plan B.

HTM 797. Research (1-3) Cr/NC

Prerequisites: Classified graduate standing and consent of instructor.

Supervised research in an area of hospitality and tourism management. Maximum credit three units of Hospitality and Tourism Management 790, 797, or 798 applicable to a master's degree.

HTM 798 Special Study (1-3) Cr/NC

Prerequisites: Classified graduate standing and consent of instructor.

Individual study, generally for thesis research. Maximum credit three units of Hospitality and Tourism Management 790, 797, or 798 applicable to a master's degree.

HTM 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion of degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Information and Decision Systems

Refer to "Business Administration: Management Information Systems" in this section of the bulletin.

Interdisciplinary Studies

ADMINISTERED BY THE DIVISION OF GRADUATE AFFAIRS

OFFICE: Student Services East 1410
TELEPHONE: 619-594-5213 / **FAX:** 619-594-0189
E-MAIL: gra@sdsu.edu
WEBSITE: <http://aztecgrad.sdsu.edu/gra>

General Information

When the existing advanced degree programs of the university do not adequately meet certain special needs and interests, a student may propose a Master of Arts or Master of Science degree in Interdisciplinary Studies. This degree program provides the unusually well-qualified student an opportunity for individualized graduate study composed of coursework in at least two but not more than three departments or schools at SDSU. The Division of Graduate Affairs administers this program following procedures established by the Graduate Council.

The proposed program must not be substantially available in a current graduate program offered at the university, and it must have adequate focus and coherence in cognate disciplines. Prerequisite courses may be required to support the courses in the student's program of study.

A graduate supervisory committee and a field of study shall be chosen, subject to the approval of the dean of the Division of Graduate Affairs. The supervisory committee shall consist of not less than three full-time faculty representative of the areas in which the student intends to pursue the degree. The graduate dean or designee shall serve as an ex officio member of the committee.

Admission to Graduate Study

In addition to satisfying the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, the student must (1) possess an academic background appropriate to the proposed program and have achieved an undergraduate grade point average of 3.0; and (2) complete the GRE General Test with a satisfactory score on the verbal and quantitative sections. Since an approved course of study is required for classified admission of this major, applicants may only be admitted to the university in conditionally classified status pending formal approval of a program of study.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Division of Graduate Affairs.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Division of Graduate Affairs

An essay explaining the rationale for entering the Interdisciplinary Studies program as the vehicle for the master's degree must be submitted by the deadline set by the university to:

Associate Dean
Division of Graduate Affairs
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-8020

In the essay, state concisely why you wish to pursue the interdisciplinary studies major including career objectives. Explain why existing campus programs cannot meet your academic objectives.

Advancement to Candidacy

In addition to satisfying the general requirements of the university for advancement to candidacy, as stated in Part Four of this bulletin, the student must satisfy the special requirements for advancement defined by the supervisory committee in the official program of study. Students are admitted to interdisciplinary studies as conditionally classified students. Students admitted conditionally must submit an approved program of study within two semesters. If the proposed curriculum is not approved, the student will have the option of applying for admission to an alternative advanced degree program.

Specific Requirements for the Master's Degree

(Major Code: 49993) (SIMS Code: M.A. 995010; M.S. 995030)

1. In addition to satisfying the requirements for classified graduate standing and the basic requirements for the master's degree, as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units of courses acceptable for advanced degree credit.
2. The official program of study must reflect careful and deliberate planning. The selection and level of courses will be based on the best standards and practices of the disciplines involved. Normally no more than nine units taken prior to approval of the official program of study may apply to the degree.
3. In consultation with the supervisory committee, the student will determine the subject of the research for a thesis that will be completed as the culminating experience in partial fulfillment of the requirements for the degree.

General Procedures for the Program

Students must take the following steps to obtain classified student status:

1. After meeting with the assistant dean of the Division of Graduate Affairs, a student must complete and follow the instructions on the form, "Request for Permission to Pursue an Interdisciplinary Studies Master's Degree," which is available in the Division of Graduate Affairs. The applicant must initially seek out a potential faculty adviser and two additional faculty members who have the expertise and interest in advising and supporting the applicant in the proposed program of study.
2. When the student's portion of the form has been completed, the major adviser selected, and other potential supervisory committee members contacted, an appointment with the assistant dean of the Division of Graduate Affairs should be arranged. In some instances, both the applicant and the proposed major adviser should be present at this meeting. Other proposed committee members are welcome to participate in these discussions.

3. Following this meeting and after making any modifications to the proposed program eventuating from it, the student must present for approval the "Request for Permission to Pursue an Interdisciplinary Studies Master's Degree" to the chairs of departments in which courses are being proposed and to the deans of colleges responsible for these academic units.
4. The student will then present the "Request," endorsed with appropriate departmental and college recommendations, to the Division of Graduate Affairs, where it will be reviewed by the graduate dean for final endorsement to certify that the "Request" has been approved as an official program of study, that the supervisory committee has been formally appointed, and that the student has been granted classified graduate standing for the purpose of pursuing the interdisciplinary major.
5. Virtually all other requirements for this major are the same as those for other master's degree programs, as specified in this bulletin. Special questions should be directed to the chair of the supervisory committee or to the Division of Graduate Affairs.

Courses Acceptable for Master's Degree Program in Interdisciplinary Studies (INT S)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

INT S 600. Big Data Analytics Capstone Seminar (3)

Prerequisites: Geography 594, Business Administration 623, Linguistics 572, Management Information Systems 686.

Capstone course to integrate data analytics knowledge. Big data problems and research challenges. Student teams conduct group projects and present findings.

INT S 690. Seminar in Research Ethics (1) Cr/NC

Prerequisite: Graduate standing.

Core content areas that influence responsible conduct of research (RCR) including research misconduct, data management, use of animal and human subjects, conflict of interest and commitment, authorship, publication and peer review, and collaboration and mentoring. Intended for graduate students involved in research projects. Meets NIH and NSF training grant requirements for RCR instruction.

INT S 797. Research (1-3) Cr/NC/RP

Prerequisites: Advancement to candidacy and completion of Special Study Request Form.

Independent research in a specialized subject. Maximum six units applicable to a master's degree.

INT S 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Completion of Special Study Request Form.

Independent study. Maximum credit six units applicable to a master's degree.

INT S 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

INT S 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also the student must be registered in the course when the completed thesis or project is granted final approval.

INT S 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Journalism and Media Studies

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: jmsdesk@sdsu.edu
WEBSITE: <http://jms.sdsu.edu>

Faculty

Bey-Ling Sha, Ph.D., Professor of Journalism and Media Studies,
Director of School
Joel J. Davis, Ph.D., Professor of Journalism and Media Studies,
Emeritus
David M. Dozier, Ph.D., Professor of Journalism and Media
Studies, Emeritus
William F. Eadie, Ph.D., Professor of Journalism and Media
Studies, Emeritus, and Interim Associate Vice President for
Academic Affairs, Faculty Advancement
John M. Eger, J.D., The Lionel Van Deerlin Professor of
Communication and Public Policy
Barbara Mueller, Ph.D., Professor of Journalism and Media Studies
Kathleen D. Sweetser, Ph.D., Professor of Journalism
and Media Studies
K. Tim Wulfemeyer, Ed.D., Professor of Journalism and Media
Studies, Emeritus
Ronald J. Arceneaux, Ph.D., Associate Professor of Journalism
and Media Studies
Rebecca C. Nee, Ed.D., Associate Professor of Journalism
and Media Studies
Amy Schmitz Weiss, Ph.D., Associate Professor of Journalism
and Media Studies (Graduate Adviser)
Hongmei Shen, Ph.D., Associate Professor of Journalism
and Media Studies
Mei Zhong, Ph.D., Associate Professor of Journalism and
Media Studies
Yang Feng, Ph.D., Assistant Professor of Journalism
and Media Studies
Nathian S. Rodriguez, Ph.D., Assistant Professor of Journalism
and Media Studies
Arthur D. Santana, Ph.D., Assistant Professor of Journalism
and Media Studies

Associateships

Graduate students are employed in the School of Journalism and Media Studies in teaching, research, and other areas. Graduate teaching associateships are available to a limited number of qualified students. Contact the school director for details. Please submit graduate application materials by February 1 for the subsequent fall semester.

General Information

The School of Journalism and Media Studies offers graduate study leading to the Master of Arts degree in communication with a specialization in mass communication and media studies. This degree prepares students either for additional graduate work, leadership positions in key media industries and professional areas, or teaching careers at the community college level. Graduates occupy leadership positions in advertising, digital and social media, journalism, media and telecommunications management, public relations, and telecommunications policy, as well as enter premier doctoral programs across the country.

In addition to advertising, journalism, and public relations, research interests of faculty and students include audience uses of media, digital and social media studies and technologies, international media, media criticism, media ethics, media and identity, media history, media law, media management, media message and program strategies, media organizations and professionals, media production, and telecommunication regulation and policy.

Admission to Graduate Study.

The specialization in mass communication and media studies admits students for the fall semester only. Electronic applications must be received by February 1. Materials must be complete and received by March 1.

In addition to meeting the general requirements for admission to the university with classified graduate standing as outlined in Part Two of this bulletin, students applying for admission to the Master of Arts degree in communication with a specialization in mass communication and media studies are evaluated according to the following criteria:

1. Undergraduate major or minor in advertising, journalism, media studies, public relations, radio-television, strategic communication, or a related discipline. Those lacking adequate undergraduate preparation may be admitted conditionally to the program and may be required to take one or more proficiency courses as determined by the school's graduate admissions committee. Proficiency courses do not count toward the 30 units of a student's graduate program.
2. Minimum grade point average of 2.85 (when A equals 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).

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee by February 1.

All applicants must submit admissions materials online to SDSU Graduate Admissions and to the School of Journalism and Media Studies by March 1.

Graduate Admissions

The following materials should be submitted by February 1 as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682, department code 4503). All applicants must post a Graduate Record Examination (GRE) verbal score of 450 (old) or 150 (new) or higher; a GRE quantitative score of 450 (old) or 142 (new) or higher; a combined GRE verbal and quantitative score of 950 (old) or 295 (new) or higher; and a GRE writing assessment (GRE-W) of 4.0 (old and new) or higher;
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

For international applicants for whom English is not their first language, English language paper scores of 550 (or 213 online) or higher. Satisfaction of minimum requirements is not a guarantee of admission.

School of Journalism and Media Studies

This program requires a supplemental application. See http://jms.sdsu.edu/index.php/admissions/mass_communication_requirements for details.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 06011)

In addition to meeting the requirements for the Master of Arts degree as described in Part Four of this bulletin, the student must complete a minimum of 30 units in courses acceptable in master's degree programs. At least 18 units of the total program must be in courses numbered 600-799. Approval of the graduate adviser is required for all courses numbered 500-599. With the approval of the graduate adviser, students may take up to nine units of graduate coursework in departments other than the School of Journalism and Media Studies. Students may not repeat any course in their program of study without consent of the graduate adviser and instructor.

Specialization in Mass Communication and Media Studies (SIMS Code: 664141)

This specialization offers advanced study for individuals seeking additional knowledge of advertising, public relations, journalistic practices, emerging digital and social media technologies, or the impact of mediated communication practices on individuals, groups, and society as a whole. The program of study is appropriate for individuals who seek to enhance their careers in journalism, advertising, or public relations; who wish to pursue careers involving new media industries; who wish to teach at the community college level; or who wish to continue studies of mass communication and media at the doctoral level. Please see the School of Journalism and Media Studies website for the most current information.

Proficiency Requirements. Individuals must demonstrate relevant undergraduate coursework for their desired area of focus within the specialization. Individuals without adequate preparation may be asked to take proficiency courses. Specific proficiency courses will be determined in consultation with the graduate adviser after admission to the program.

Graduate Courses. Students may select Plan A, thesis, by completing Journalism and Media Studies 799A (3 units) or, if Plan B is selected, the student must complete three additional units of 600-700 level coursework in the School of Journalism and Media Studies and pass the Comprehensive Examination in journalism and media studies. The remaining 27 units of the program must include completion of Journalism and Media Studies 600A and 600B with an average grade of B (3.0) or better in the two courses, or consent of the Journalism and Media Studies faculty; 12 units selected from Journalism and Media Studies 506, 527, 529, 547, 560, 566, 567, 574, 581, 585, 587, 590, 591, 595, 596, 620, 696, 701, 710, 780, 798, and nine units relevant to the specialization selected with the approval of the graduate adviser. No more than nine units may be taken outside the School of Journalism and Media Studies. No more than six units may be taken as special study (798). No more than 12 units taken at the 500-level may count toward the degree.

Courses Acceptable for Master's Degree Programs in Journalism and Media Studies (JMS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

JMS 506. Advertising and Society (3)

Prerequisite: Admission to a major in the School of Journalism and Media Studies. **Proof of completion of prerequisites required:** Copy of transcript.

Theoretical and philosophical analysis of advertising in modern society.

JMS 525. News and Social Media (3)

Prerequisites: Journalism and Media Studies 210 with a grade of C (2.0) or better and upper division or graduate standing.

Culture of connectivity and ecosystem of digital journalism. Best practices with news reporting using digital media tools. Journalistic practices and mass communication theory.

JMS 527. Advanced Topics in Journalism (3)

Prerequisites: Journalism and Media Studies 300 with a grade of C (2.0) or better. Admission to journalism major.

Reading, investigation, and research in a specialized topic in journalism. May be repeated with new content. Maximum credit six units.

JMS 529. Data-Driven Investigative Journalism (3)

One lecture and four hours of activity.

Prerequisite: Journalism and Media Studies 420 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

History and role of investigative journalism in the U.S. Use of the Internet, public records, spreadsheets, and databases to develop stories in the public interest. Finding patterns and leads in electronic data. Field and laboratory experience.

JMS 547. Advanced Topics in Media Studies (3)

Prerequisites: Journalism and Media Studies 408 with a grade of C (2.0) or better. Admission to media studies emphasis, Major Code: 15060.

Reading, investigation, and research in a specialized topic in media studies. May be repeated with new content. Maximum credit six units.

JMS 550. Multimedia News Laboratory (3)

One lecture and four hours of activity.

Prerequisites: Journalism and Media Studies 420, 430 with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

Capstone course using skills and knowledge acquired in critical thinking, writing, reporting, editing, production, and design courses. Preparation of multimedia news content. Field and laboratory experience. Completion of course with grade of C (2.0) or better is required for majors.

JMS 560. Advertising Research (3)

Prerequisites: Journalism and Media Studies 310W, 460, 462 with a grade of C (2.0) or better in each course. Admission to advertising emphasis, Major Code: 06041. **Proof of completion of prerequisites required:** Copy of transcript.

Planning, evaluation, analysis of qualitative and quantitative research across traditional, digital, and social platforms. Ethics, sampling, experimentation, data analysis, segmentation, brand mapping, advertising testing and optimization, social media metrics.

JMS 562. Advertising Creative (3)

One lecture and four hours of activity.

Prerequisites: Journalism and Media Studies 310W, 460, 462 with a grade of C (2.0) or better in each course. Admission to advertising emphasis, Major Code: 06041. **Proof of completion of prerequisites required:** Copy of transcript.

Advertising, applying consumer insights, developing creative strategies, drafting creative briefs. Writing and design of advertising for traditional, digital, social, emerging media platforms. Multi-media laboratory experience. (Formerly numbered Journalism and Media Studies 461.)

JMS 565. Advertising Campaigns (3)

Prerequisites: Journalism and Media Studies 560, 562 with a grade of C (2.0) or better in each course.

Branding campaigns using traditional, digital, and social media. Strategy for owned, earned, and paid media. Consumer analysis, community definition. Creative development. Media strategy and tactics. Campaign measurement. Completion of course with grade of C (2.0) or better is required for majors.

JMS 566. Advertising Strategy and Digital Analytics Platforms (3)

Prerequisites: Journalism and Media Studies 460 or 480, and Journalism and Media Studies 560 or 581.

Strategy creation, implementation, and evaluation using digital analytics platforms. Digital analytics administration, monitoring, analysis, and reporting. Application of digital analytics to consumer advertising optimization.

JMS 567. Advanced Topics in Advertising (3)

Prerequisites: Journalism and Media Studies 460 with a grade of C (2.0) or better. Admission to advertising emphasis, Major Code: 06041.

Reading, investigation, and research in a specialized topic in advertising. May be repeated with new content. Maximum credit six units.

JMS 574. International Advertising (3)

Prerequisite: Admission to a major in the School of Journalism and Media Studies.

Comparative cultural, economic, legal, political, and social conditions relevant to international advertising.

JMS 581. Applied Research in Public Relations (3)

Two lectures and two hours of activity.

Prerequisites: Journalism and Media Studies 310W, 480, 489 with a grade of C (2.0) or better in each course. Admission to public relations emphasis, Major Code: 05992. **Proof of completion of prerequisites required:** Copy of transcript.

Qualitative and quantitative methods used in research to plan, track, evaluate public relations and communication practices. Computerized statistical analysis.

JMS 582. Seminar in Media and Politics (3)

Prerequisites: Upper division or graduate standing and Journalism and Media Studies 489 or 560 or credit or concurrent registration in Journalism and Media Studies 600B.

Mass media on domestic, global politics, elections. Theories, concepts, history of media and politics. Impact of digital and social media on political process.

JMS 585. Professional Practices in Public Relations (3)

Prerequisites: Journalism and Media Studies 481 and 581 with a grade of C (2.0) or better in each course.

Cases in public relations management. Theory and practice of issues management. Integration of public relations function in strategic management of corporate, governmental, nonprofit, social, and cultural organizations. Completion of course with grade of C (2.0) or better is required for majors.

JMS 587. Advanced Topics in Public Relations (3)

Prerequisites: Journalism and Media Studies 480 with a grade of C (2.0) or better. Admission to public relations emphasis, Major Code: 05992.

Reading, investigation, and research in a specialized topic in public relations. May be repeated with new content. Maximum credit six units.

JMS 590. Seminar in Crisis Communication in PR Management (3)

Prerequisite: Upper division or graduate standing.

Theory, research, practice of crisis communication in public relations; development of crisis management plans; critical examination of classic/contemporary crisis management cases, both domestic and international.

JMS 591. Global Technology: Creativity and Innovation in the Digital Age (3)

Prerequisite: Admission to a major in the School of Journalism and Media Studies. **Proof of completion of prerequisite required:** Copy of transcript.

Economic, social, and political shifts in the global economy as a result of digital communication. Emergence of new national and international media policies to stimulate creativity and innovation as central factors in development.

JMS 595. Seminar in Theoretical Approaches to Public Relations (3)

Prerequisite: Journalism and Media Studies 585 with grade of C (2.0) or better, or graduate standing.

Diverse theoretical approaches to public relations, including management, rhetorical, critical, relational and marketing approaches. Preparation for independent scholarly research project or master's thesis.

JMS 596. Selected Topics (1-3)

Prerequisite: Senior standing or above.

Specialized study in selected topics. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

JMS 600A. Seminar: Introduction to Graduate Studies in Mass Communication and Media Studies (3)

Prerequisite: Classified or conditionally classified graduate standing in the School of Journalism and Media Studies.

Contemporary and emergent mass communication theory. Extensive writing from exercises in bibliographical techniques, database searches, reference works, scholarly journals, and research proposal. Required for first semester of graduate work; prerequisite for advancement to candidacy. May not be repeated more than once.

JMS 600B. Seminar: Research Methods in Mass Communication and Media Studies (3)

Prerequisite: Classified or conditionally classified graduate standing in the School of Journalism and Media Studies.

Methods and tools of inquiry in mass communication research. Survey, experimental, content analysis, legal, and historical research methods. Required for first semester of graduate work; prerequisite for advancement to candidacy. May not be repeated more than once.

JMS 602. Seminar: Military Public Affairs (3)

Prerequisite: Admission to M.A. program in the School of Journalism and Media Studies.

Public relations theory, history, ethics, social responsibility, management, law and technology. Current problems and issues in military public affairs.

JMS 603. Seminar: Professional Development in Military Public Affairs (3)

Prerequisite: Admission to M.A. program in the School of Journalism and Media Studies.

Preparing research findings for external review, using methods that include statistical data analysis. Prepare for professional examination in public relations.

JMS 620. Seminar: Quantitative Methods in Media Research (3)

Prerequisites: Journalism and Media Studies 600A and 600B.

Research, design, computer statistical analysis, and reporting of survey, content analysis, and experimental studies in media contexts.

JMS 696. Special Topics (1-3)

Prerequisites: Journalism and Media Studies 600A and 600B.

Intensive study in specific areas of journalism and media studies. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

JMS 701. Seminar: Mass Communication Problems (3)

Prerequisites: Journalism and Media Studies 600A and 600B.

Reading, investigation, and research concerning current topics in problems of mass media. May be repeated with new content. Maximum credit six units.

JMS 710. Seminar: Media and Social Influence (3)

Prerequisites: Journalism and Media Studies 600A and 600B.

Role of media in social influence processes. Media strategies for use in social marketing and political campaigns.

JMS 780. Seminar: Advanced Theory in Public Relations (3)

Prerequisites: Journalism and Media Studies 600A and 600B.

Analysis and critique of contemporary public relations theory. Development of scholarly works that explicate concepts or otherwise advance public relations theory.

JMS 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Journalism and Media Studies 600A and 600B.

Contract required. Arranged with graduate coordinator in area of study. Individual study. Maximum credit six units applicable to a master's degree.

JMS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

JMS 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

JMS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.



Kinesiology

IN THE SCHOOL OF EXERCISE AND NUTRITIONAL SCIENCES
IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Exercise and Nutritional Sciences 351

TELEPHONE: 619-594-5541

WEBSITE: <https://ens.sdsu.edu>

Faculty

Matthew T. Mahar, Ed.D., Professor of Exercise and Nutritional Sciences, Director of School

David M. Kahan, Ph.D., Professor of Exercise and Nutritional Sciences

Susan S. Levy, Ph.D., Professor of Exercise and Nutritional Sciences

Katrina S. Maluf, Ph.D., P.T., Professor of Exercise and Nutritional Sciences

Mitchell J. Rauh, Ph.D., P.T., Professor of Exercise and Nutritional Sciences

Sara P. Gombatto, Ph.D., Associate Professor of Exercise and Nutritional Sciences

Denise A. Lebsack, Ph.D., Associate Professor of Exercise and Nutritional Sciences

Lori J. Tuttle, Ph.D., M.P.T., Associate Professor of Exercise and Nutritional Sciences

Harsimran Baweja, Ph.D., P.T., Assistant Professor of Exercise and Nutritional Sciences

Antoinette Domingo, Ph.D., M.P.T., Assistant Professor of Exercise and Nutritional Sciences

Shawn M. O'Connor, Ph.D., Assistant Professor of Exercise and Nutritional Sciences

Michael D. Rosenthal, D.Sc., M.P.T., Assistant Professor of Exercise and Nutritional Sciences

Associateships and Assistantships

Graduate teaching associateships are available for a limited number of qualified students. These provide essential education, technical training, and creative experience necessary for future professional and scholarly activity or college-level teaching. Graduate assistantships are also available in some cases to aid faculty research. Applications and additional information on graduate programs may be obtained from the School of Exercise and Nutritional Sciences website at <http://ens.sdsu.edu>.

General Information

The School of Exercise and Nutritional Sciences offers graduate study leading to the Master of Science degree in kinesiology with a specialization in applied movement science. Applied movement science is a growing, interdisciplinary field that focuses on the measurement and evaluation of human function, and its relation to fitness, disability, and rehabilitation. The program delivers a unique combination of biomechanical, motor control, and exercise physiology principles aimed at preparing professionals for a diverse set of health and fitness-related careers. In particular, the program emphasizes clinical research to include the development of "hands-on" data acquisition/analysis skills for the assessment of motor performance in health and sport and exercise-related environments. The degree can serve as an entry point into clinical research positions or as preparation for doctorate degrees in kinesiology, physical therapy, or other rehabilitation science-based graduate programs.

Faculty in the program are broadly based and include high-level researchers from disciplines such as biomechanics, motor control, rehabilitation sciences, and sensorimotor neuroscience.

Master of Science Degree in Kinesiology

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, a student applying for admission to the graduate program in kinesiology must meet the following requirements.

1. A bachelor's degree. Applicants who do not have an undergraduate major in kinesiology or related discipline may be admitted to conditionally classified graduate standing on the recommendation of the graduate adviser of the school. Students will be required to complete or have equivalent preparation in Biology 212, 336, Exercise and Nutritional Sciences 304, 306, 307, and an undergraduate statistics course.
2. A grade point average (GPA) of at least 3.0 overall or at least 3.0 in the last 60 units of baccalaureate coursework.
3. A minimum score of 475 (old GRE score) or 151 (new GRE score) on the verbal and 475 (old GRE score) or 142 (new GRE score) on the quantitative sections of the GRE General Aptitude Test.

Students will be admitted **ONLY** in the fall semester. Submit applications by the application deadline. Applicants should refer to the admission to master's and doctoral study section for application instructions. All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Exercise and Nutritional Sciences.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 08351)

In addition to meeting the requirements for classified graduate standing the student must satisfy the basic requirements for the master's degree, as described in Part Four of this bulletin. The 36-unit program includes a minimum of 28 units in exercise and nutritional sciences, biology, and doctor of physical therapy courses acceptable in master's degree programs in kinesiology, of which at least 28 units must be in 600- and 700-numbered courses. Also, students can complete their degree by choosing either Plan A or Plan B. If students select Plan A, Exercise and Nutritional Sciences 799A (thesis) is required for completion of their degree, accompanied by a final oral examination on the field of the thesis/project and on the implications of the thesis research for the broader field of kinesiology. If students select Plan B, Exercise and Nutritional Sciences 790 (Directed Readings) is required for completion of the degree.

Students seeking a Master of Science degree in kinesiology with a specialization in applied movement science are required to develop a formal plan of study that must be approved by the graduate adviser before being forwarded to the Division of Graduate Affairs. Students are required to take mandated core courses and

select a number of electives. The offerings in the specialization allow a student to achieve certain competencies once the degree has been completed.

The school expects a student to complete the degree within seven years. Failure to complete the degree requirements within seven years will result in dismissal from the program.

Specialization in Applied Movement Science (SIMS Code: 556543)

Application of principles of biomechanics, motor control, and neurophysiology to science of physical rehabilitation. Emphasis is placed on techniques of data acquisition and analysis to assess and evaluate motor performance of clinical and non-clinical populations.

Required courses for the 36-unit program:

ENS 601	Experimental Methods in Exercise and Nutritional Sciences.....	3
ENS 602	Research Evaluation in Exercise and Nutritional Sciences.....	3
ENS 610	Biomechanics: Measurement Techniques I – Kinematics	3
ENS 611	Biomechanics: Measurement Techniques II – Kinetics.....	3
ENS 612	Biomechanics: Measurement Techniques III – EMG.....	3
ENS 613	Motor Control and Rehabilitation Science	3
BIOL 570	Neurobiology.....	3
DPT 750	Concepts in Physiology, Pathophysiology, and Pharmacology	4
Electives:	Eight units to be selected in consultation with a specialization adviser (a minimum of three units must be in 600- or 700-numbered courses).	

Plan A

ENS 799A	Thesis	3 (Cr/NC/RP)
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or Plan B

ENS 790	Seminar in Directed Readings.....	3 (Cr/NC)
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Courses Acceptable for Master's Degree Programs in Kinesiology (ENS)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Exercise and Nutritional Sciences (ENS)

UPPER DIVISION COURSE

ENS 596. Selected Topics in Exercise and Nutritional Sciences (1-3)

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 degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Exercise and Nutritional Sciences (ENS)

GRADUATE COURSES

ENS 601. Experimental Methods in Exercise and Nutritional Sciences (3)

Prerequisite: Undergraduate statistics course.

Experimental methods in exercise and nutritional science.

ENS 602. Research Evaluation in Exercise and Nutritional Sciences (3)

Prerequisite: Exercise and Nutritional Sciences 601.

Techniques in designing, conducting, and reporting research in exercise and nutritional science. Qualitative and quantitative paradigms examined. Ethical consideration of human research.

ENS 603. Measurement and Evaluation in Exercise and Rehabilitation (3)

Prerequisites: Exercise and Nutritional Sciences 305 and Statistics 119.

Measurement theory and practice as applied to exercise and rehabilitation. Interpretation of measures used in physical medicine and rehabilitation contexts.

ENS 610. Biomechanics: Measurement Techniques I-Kinematics (3)

Prerequisites: Exercise and Nutritional Sciences 306 and 603.

Kinematic analysis of human movement using videography, electrogoniometry, and accelerometry with automated data reduction techniques typically used in study of pathomechanics.

ENS 611. Biomechanics: Measurement Techniques II-Kinetics (3)

Prerequisites: Exercise and Nutritional Sciences 306 and 603.

Kinetic analysis of human movement using clinical tools and laboratory devices to measure loads and forces applied to body under typical and pathological conditions.

ENS 612. Biomechanics: Measurement Techniques III-EMG (3)

Prerequisites: Exercise and Nutritional Sciences 306 and 603.

Tissue structure, neurological function, and muscular performance of typical and pathological human movement.

ENS 613. Motor Control and Rehabilitation Science (3)

Prerequisites: Exercise and Nutritional Sciences 307 and 603.

Human movement in clinical and non-clinical populations using principles of motor control.

ENS 696. Advanced Topics in Exercise and Nutritional Sciences (3)

Intensive study in specific areas of exercise and nutritional sciences. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

ENS 790. Seminar in Directed Readings (3) Cr/NC

Prerequisites: Exercise and Nutritional Sciences 602 and advancement to candidacy.

Preparation for comprehensive examination for students pursuing either an M.A. or an M.S. degree under Plan B.

ENS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of school director.

Individual study. Maximum credit six units applicable to a master's degree.

ENS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

ENS 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

ENS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Latin American Studies

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 377

TELEPHONE: 619-594-1104

WEBSITE: <http://latinamericanstudies.sdsu.edu>

Faculty

Committee for Latin American Studies

Ramona L. Pérez, Ph.D., Professor of Anthropology,
Chair of Committee and Director of the Center for
Latin American Studies (Graduate Coordinator)

Catalina Amuedo-Dorantes, Ph.D., Professor of Economics

Alda Blanco, Ph.D., Professor of Spanish

Fernando J. Bosco, Ph.D., Professor of Geography

David Carruthers, Ph.D., Professor of Political Science
(Undergraduate Adviser)

Jill Esbenshade, Ph.D., Professor of Sociology

Shawn T. Flanigan, Ph.D., Professor of Public Affairs

Juan M. Godoy Marquet, Ph.D., Professor of Spanish

Jonathan M. Graubart, Ph.D., Professor of Political Science

Lawrence A. Herzog, Ph.D., Professor of Public Affairs,
Emeritus

Norma V. Iglesias Prieto, Ph.D., Professor of Chicana
and Chicano Studies

Matthew T. Lauer, Ph.D., Professor of Anthropology

José Mario Martín-Flores, Ph.D., Professor of Spanish

Doreen J. Mattingly, Ph.D., Professor of Women's Studies

William A. Nericcio, Ph.D., Professor of English and
Comparative Literature

Norma Ojeda, Ph.D., Professor of Sociology and Chicana
and Chicano Studies

Isidro D. Ortiz, Ph.D., Professor of Chicana and Chicano Studies
[Senate Distinguished Professor]

P.J.E. (Jenny) Quintana, Professor of Public Health

Elisa J. Sobo, Ph.D., Professor of Anthropology

Gregory A. Talavera, M.D., Professor of Public Health

Paula S. DeVos, Ph.D., Associate Professor of History

Salvador Espinosa, Ph.D., Associate Professor of Public Affairs

Kathleen A. Farley Wolf, Ph.D., Associate Professor of Geography

Victoria C. González-Rivera, Ph.D., Associate Professor of
Chicana and Chicano Studies

Maria de la Luz Ibarra, Ph.D., Associate Professor of Chicana
and Chicano Studies

Irene Lara, Ph.D., Associate Professor of Women's Studies

Kristen Hill Maher, Ph.D., Associate Professor of Political Science

Enrico A. Marcelli, Ph.D., Associate Professor of Sociology

Arion T. Mayes, Ph.D., Associate Professor of Anthropology

Jeffrey S. McIlwain, Ph.D., Associate Professor of Public Affairs

Amy Schmitz Weiss, Ph.D., Associate Professor of Journalism
and Media Studies

Katherine Elizabeth Swanson, Ph.D., Associate Professor
of Geography

Madeline J. Baer, Ph.D., Assistant Professor of Political Science

Esperanza Camargo, Ph.D., Assistant Professor of
Public Affairs (IVC)

Cheryl M. O'Brien, Ph.D., Assistant Professor of Political Science

Ricardo Vasconcelos, Ph.D., Assistant Professor of Spanish and
Portuguese Languages and Literatures

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Center for Latin American Studies.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Arts Degree in Latin American Studies

The following materials should be mailed or delivered to:

Center for Latin American Studies

(Attention: Graduate Adviser)

San Diego State University

5500 Campanile Drive

San Diego, CA 92182-4446

1. Personal statement;
2. Three letters of reference.

Master of Business Administration Degree and Master of Arts Degree in Latin American Studies

The following materials should be submitted by November 1 (October 1 for international students) for admission for the spring semester and May 1 for the fall semester to:

Center for Latin American Studies

(Attention: Graduate Adviser)

San Diego State University

5500 Campanile Drive

San Diego, CA 92182-4446

1. Personal statement;
2. Curriculum vitae or resume;
3. Letters of reference (optional, maximum three).

Master of Public Administration Degree and Master of Arts Degree in Latin American Studies

The following materials should be mailed or delivered to:

Center for Latin American Studies

(Attention: Graduate Adviser)

San Diego State University

5500 Campanile Drive

San Diego, CA 92182-6038

1. Personal statement;
2. Three letters of reference from individuals who have known the student's academic performance (one letter may be from an individual who knows the employment performance of the student).

Master of Public Health Degree and Master of Arts Degree in Latin American Studies

Applicants seeking admission to the Master of Public Health and Master of Arts degree in Latin American Studies should contact the Graduate School of Public Health requesting appropriate descriptive materials. Detailed application instructions can be obtained from our website at <http://publichealth.sdsu.edu>.

Students who do not fully meet the requirements for admission with classified graduate standing may be considered for conditionally classified graduate standing upon recommendation of the admissions committee and the graduate adviser.

Master of Arts Degree in Latin American Studies

General Information

Since 1976 the Center for Latin American Studies has been designated a National Resource Center for Latin American Studies (one of only eleven in the nation) by the United States Department of Education and funded through a Title VI grant. The Master of Arts degree administered by the center is an interdisciplinary program drawing on the expertise of an outstanding Latin Americanist faculty from the following departments: Anthropology, Art, Comparative Literature, Economics, Geography, History, Political Science, Public Affairs, Sociology, Spanish and Portuguese Languages and Literatures, Women's Studies, and the Fowler College of Business. Emphasis in the program is placed on the central issue of "Modernization and Urbanization" in Latin America and offered through nine courses from nine different departments.

Research interests and areas of expertise of the faculty include: demography, economic development, folk art, Indians and peasants, land tenure systems, the Latin American press, mental health and aging in Mexico, militarism and guerrilla warfare, Spanish American prose, poetry and criticism, theatre, U.S.-Latin American relations, and the U.S.-Mexico border.

Admission to the Degree Curriculum

In addition to meeting the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, the student must present the Bachelor of Arts degree with not less than 18 units of courses of Latin American content in three areas. A student whose preparation is deemed insufficient by his graduate adviser or by the Latin American Studies committee will be required to complete specified courses in addition to the minimum of 30 units required for the degree.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy described in Part Four of this bulletin. Moreover, students must demonstrate an oral and reading proficiency in Spanish through either the satisfactory completion of an oral and a written examination, or: (1) complete Spanish 302 with a grade of B (3.0) or better, or (2) complete three units of 500-level or graduate coursework in Spanish with a grade of B (3.0) or better, or (3) pass the American Council on the Teaching of Foreign Languages (ACTFL) oral proficiency examination in Spanish with a score of 2.0 or above. In addition, students must complete either Portuguese 101 or one semester of an indigenous Latin American language (such as Mixtec, Náhuatl, or Zapotec) with a grade of B (3.0) or better. Coursework at or above the 500-level may be included as a part of the official program with the approval of the graduate coordinator.

Specific Requirements for the Master of Arts Degree

(Major Code: 03081) (SIMS Code: 114301)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the Master of Arts degree, as described in Part Four of this bulletin, the student must complete at least 30 units of upper division and graduate coursework, including Latin American Studies 600 and 601, with not less than 24 units in courses of Latin American content selected from those listed below and distributed as follows:

	600- and 700-numbered Courses	500-, 600-, and 700-numbered Courses
Department A.....	6 units	6 units
Department B.....	3 units	3 units
Department C.....	3 units	3 units
Total.....	12 units	12 units

The total program shall include a minimum of 18 units in 600- and 700-numbered courses. Students may select either Plan A or Plan B in consultation with the graduate adviser. In addition to meeting the distribution requirements given above, students electing Plan A must complete the 799A (Thesis) course and present their thesis research as an oral examination with all committee members

present. Successful presentation of thesis research is a requirement for the degree. Students electing Plan B must pass a comprehensive written and oral examination in lieu of the thesis.

All programs will be approved by the Latin American Studies committee.

Master of Business Administration Degree and Master of Arts Degree in Latin American Studies

General Information

The Fowler College of Business and the Center for Latin American Studies offer a three-year concurrent program study leading to a Master of Business Administration and a Master of Arts in Latin American Studies. The primary objective of the concurrent program is to offer preparation in the fields of business administration and Latin American studies for the purpose of providing the knowledge and skills necessary to promote and engage in business relationships within a Latin American historical, cultural, and linguistic milieu, in Latin America or in the United States.

For information, contact the chair of the Latin American Studies Committee or the director of graduate programs in the Fowler College of Business.

Admission to the Degree Curriculum

Since this program combines disparate disciplines, applicants are required to submit GMAT or GRE scores and should have substantial academic backgrounds in the humanities and social sciences. Applicants should also have a background in Spanish or Portuguese language and literature. Students in the concurrent degree program are expected to be full time so that all requirements will be satisfied in an acceptable time.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, (1) the student must complete with a grade of B (3.0) or better, either Spanish 302 (or its equivalent) or Portuguese 401 (or its equivalent), or three units of 500-level or graduate coursework in Spanish, or pass the American Council on the Teaching of Foreign Languages (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above; (2) all core courses in business and Latin American studies must be completed prior to advancement in any core course; (3) the student must have been recommended for advancement by the combined advisory committee; (4) the student must have a thesis proposal approved by the combined faculty advisory committee.

Upon advancement to candidacy, the student will enroll in B A 799A (Thesis). A thesis (Plan A) incorporating theory, method, and analytic techniques from both disciplines is the culminating experience for the concurrent program leading to the M.B.A. and M.A. degrees.

Specific Requirements for the MBA/MA Degree

(Major Code: 49061) (SIMS Code: 992001)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study consisting of 63 units as outlined below.

- The college expects students entering the Master of Business Administration and Master of Arts in Latin American Studies to be proficient in several areas. These include proficiency in statistics, mathematical skills, basic economics and in the use of personal computers, including spreadsheets and word processing. The students are responsible for insuring that they possess these skills before beginning the program.
- Complete the following core of seven courses. (21 units):

B A 623	Statistical Analysis.....	3
B A 624	Organizational Behavior and Leadership	3
B A 625	Financial and Management Accounting.....	3
B A 626	Business Economics.....	3
B A 627	Marketing	3

Latin American Studies

B A 628	Operations and Supply Chain Management	3
B A 629	Financial Management	3

Subject to a limit of two courses, the requirement to complete individual core courses B A 623 to 629 may be waived by the director of graduate business programs if an equivalent course has been completed. Equivalency is determined by course content, institution at which course was taken, grade received, and time since course was taken. Current students are required to enroll in graduate courses and may not satisfy core course requirements by enrolling in undergraduate equivalency courses.

3. B A 630 Business Strategy3
4. Complete 15 units in Business Administration to include:

FIN 654	Seminar in International Business Finance	3
MGT 710	Seminar in World Business Environment	3
MGT 723	Seminar in International Strategic Management	3
MGT 745	Seminar in Corporate Innovation and Entrepreneurship.....	3
MKTG 769	Seminar in International Marketing.....	3
5. Complete 24 units in courses of Latin American content, including the following required courses:

LATAM 600	Seminar in Latin American Studies.....	3
LATAM 601	Seminar on Methodology of Latin American Studies	3

The remaining 18 units selected from the following list of courses:

Latin American Studies

LATAM 550	Mexican-US Border from a Latin American Perspective	3
LATAM 580	Special Topics*.....	1-4
LATAM 696	Experimental Topics*.....	3
LATAM 750	Seminar: Study in Latin America	3
LATAM 795	Latin American Studies Internship3 (Cr/NC)	
LATAM 797	Research.....	1-3 (Cr/NC/RP)

Anthropology

ANTH 520	Ethnographic Field Methods.....	3
ANTH 529	Urban Anthropology.....	3
ANTH 531	Methods in Applied Anthropology	3
ANTH 533	Race, Ethnicity, and Identity*	3
ANTH 582	Regional Anthropology*.....	3
ANTH 583	Topical Anthropology*.....	3
ANTH 605	Seminar in Applied Anthropology.....	3

Economics

ECON 565	North American Economic Relations.....	3
ECON 720	Seminar in Development and Planning*	3

History

HIST 550	Colonial Mexico	3
HIST 551	Modern Mexico.....	3
HIST 558	Latin America in World Affairs.....	3
HIST 580	Topics in the History of War and Violence*	3
HIST 640	Directed Readings in Latin American History	3

Journalism and Media Studies

JMS 574	International Advertising.....	3
JMS 701	Seminar: Mass Communication Problems.....	3

Political Science

POL S 562	Religion and Politics in Comparative Perspective	3
POL S 564	Political Ecology of Latin America	3
POL S 565	Nations and Nationalism.....	3
POL S 566	Political Change in Latin America.....	3
POL S 567	Political Systems of Latin America	3
POL S 568	Mexican Politics.....	3
POL S 661	Seminar in the Political Systems of the Developing Nations*.....	3
POL S 667	Seminar in Latin American Political Systems	3

Portuguese

PORT 535	Brazilian Literature.....	3
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Sociology

SOC 522	The Family in Comparative and Cross-Cultural Perspectives	3
SOC 554	Sociology of the United States-Mexico Transborder Populations and Globalization.....	3

Spanish

SPAN 602	Foundations and Research Methods of Hispanic Linguistics	3
SPAN 606	Spanish American Literature: Independence to Present.....	3
SPAN 751	Seminar in Realism*	3
SPAN 752	Seminar in Literature and Culture of the Fin-de-Siècle.....	3
SPAN 760	Seminar in Reading in the Transatlantic Imaginary	3

California Western School of Law

Students may take two courses from California Western School of Law with the approval of the Latin American Studies graduate adviser. Students must apply to enroll under the provisions of the affiliation agreement with the California Western School of Law.

*Acceptable when of relevant content; check with the Latin American Studies graduate adviser before enrolling. Students must apply to enroll under the provisions of the affiliation agreement with the California Western School of Law.

6. The student must complete MGT 797 (Research) or LATAM 797 (Research) in addition to B A 799A (Thesis). The thesis in business administration will treat a Latin American related topic and will be supervised by a business faculty with international business expertise and at least one faculty member from the Latin American studies program.

If a student after entering the concurrent MBA/MA program returns to a single degree program, all the requirements for the single degree program must be met.

Master of Public Administration Degree and Master of Arts Degree in Latin American Studies

General Information

The School of Public Affairs and the Center for Latin American Studies offer a concurrent graduate program leading to a Master of Public Administration and a Master of Arts in Latin American Studies. This concurrent degree program offers students preparation in the fields of public administration and Latin American studies for the purpose of public administration in fields requiring bi-national understanding of administration in the public sector.

If a student in the concurrent graduate program returns to a single degree program, none of the provisions of the concurrent degree program shall pertain. Transfer units will not be accepted towards the concurrent degrees, nor will previous graduate study or prior degrees be accepted toward meeting the unit requirements.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Four of this bulletin. The successful applicant will also satisfy the requirements for both the Master of Public Administration and the Master of Arts in Latin American Studies. To be admitted to the program, students must have (1) a 3.0 grade point average in the undergraduate major and 2.85 overall and (2) an acceptable score on the Graduate Record Examination (GRE) General Test. Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee as described in Part Four of this bulletin.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin and be recommended by the graduate advisers of both programs. In addition, all students must (1) complete Public Administration 600 and three additional courses selected from Public Administration 604, 605 or 606, 630, 642, 650, 660; (2) complete Latin American Studies 600 and 601; (3) achieve a grade point average of 3.0 in these courses with no grade below B-; (4) complete with a grade of B (3.0) or better, Spanish 302 or Portuguese 401, or their equivalents, or three units of 500-level or graduate coursework in Spanish, or pass the American Council of the Teaching of Foreign Languages (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above; (5) demonstrate international experience in Latin America through an approved study abroad or an international internship experience, or successful completion of Latin American Studies 550, an approved study abroad experience course.

Specific Requirements for the M.P.A./M.A. Degree

(Major Code: 21020) (SIMS Code: 666905)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study consisting of 54-66 units as outlined below.

- Complete the following core of eight courses (24 units):

P A 600	Scope of Public Administration.....	3
P A 604	Methods of Analysis in Public and Urban Affairs.....	3
P A 630	Seminar in Public Personnel Administration.....	3
P A 642	Seminar in Administrative Theory.....	3
P A 650	Seminar in Public Financial Management.....	3
P A 660	Administration and Public Policy Development.....	3
LATAM 600	Seminar in Latin American Studies.....	3
LATAM 601	Seminar on Methodology of Latin American Studies.....	3
- Complete one of the following courses (3 units):

P A 605	Seminar in Research Methods in Public Administration.....	3
P A 606	Seminar in Quantitative Approaches to Public Administration.....	3
- Complete three courses in one theme listed below (9 units):

City Planning Theme

P A 525	The U.S. City Planning Process.....	3
C P 630	Seminar in Urban Planning Implementation.....	3
C P 640	Seminar in Urban Planning Theory.....	3
C P 670	History of Urban Planning.....	3
C P 690	Seminar in Land Use Planning Principles and Techniques.....	3

Criminal Justice Administration Theme

CJ 601	Seminar in the Administration of Criminal Justice.....	3
CJ 602	Seminar in Comparative Criminal Justice System.....	3
CJ 603	Seminar in Community and Restorative Justice.....	3
CJ 604	Seminar in Criminal Justice and Urban Administration.....	3
CJ 605	Seminar in Juvenile Justice and Youth Violence.....	3

Public Personnel and Labor Relations Theme

P A 530	Negotiation and Bargaining in the Public Service.....	3
P A 531	Governmental Employer-Employee Relations.....	3
P A 632	Seminar of Organization Development in the Public Sector.....	3
P A 643	Seminar in Administrative Behavior.....	3
(Offered only at IVC)		

General Public Administration Theme

P A 620	Seminar in Management of Urban Governments.....	3
P A 632	Seminar of Organization Development in the Public Sector.....	3
P A 640	Seminar in Public Administration.....	3

- Complete five courses from at least two departments (15 units):

Latin American Studies

LATAM 540	History, Society, and Ecology of Baja Peninsula.....	3
LATAM 550	Mexican-US Border from a Latin American Perspective.....	3
LATAM 580	Special Topics*.....	3
LATAM 750	Seminar: Study in Latin America.....	3
LATAM 797	Research.....	3 (Cr/NC/RP)
LATAM 798	Special Study.....	3 (Cr/NC/RP)

Anthropology

ANTH 520	Ethnographic Field Methods.....	3
ANTH 529	Urban Anthropology.....	3
ANTH 531	Methods in Applied Anthropology.....	3
ANTH 533	Race, Ethnicity, and Identity*.....	3
ANTH 582	Regional Anthropology*.....	3
ANTH 583	Topical Anthropology*.....	3
ANTH 605	Seminar in Applied Anthropology.....	3

Economics

ECON 565	North American Economic Relations.....	3
ECON 600-level or above; may include related elective:		
ECON 561	International Trade.....	3
OR		
ECON 592	International Monetary Theory and Policy.....	3

Geography

GEOG 506	Landscape Ecology*.....	3
GEOG 573	Population and the Environment*.....	3
GEOG 574	Water Resources*.....	3

History

HIST 550	Colonial Mexico.....	3
HIST 551	Modern Mexico.....	3
HIST 558	Latin America in World Affairs.....	3
HIST 580	Topics in the History of War and Violence*.....	3
HIST 640	Directed Readings in Latin American History.....	3

Political Science

POL S 562	Religion and Politics in Comparative Perspective	3
POL S 564	Political Ecology of Latin America	3
POL S 565	Nations and Nationalism	3
POL S 566	Political Change in Latin America	3
POL S 567	Political Systems of Latin America	3
POL S 568	Mexican Politics	3
POL S 661	Seminar in the Political Systems of the Developing Nations*	3
POL S 667	Seminar in Latin American Political Systems	3

Portuguese

PORT 535	Brazilian Literature	3
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Sociology

SOC 522	The Family in Comparative and Cross-Cultural Perspectives	3
SOC 554	Sociology of the United States-Mexico Transborder Populations and Globalization	3

Spanish

SPAN 602	Foundations and Research Methods of Hispanic Linguistics	3
SPAN 606	Spanish American Literature: Independence to Present	3
SPAN 751	Seminar in Realism*	3
SPAN 752	Seminar in Literature and Culture of the Fin-de-Siècle	3
SPAN 760	Seminar in Reading in the Transatlantic Imaginary	3

*Acceptable when of relevant content; check with the Latin American Studies graduate adviser before enrolling.

- Students must complete P A 799A or LATAM 799A or P A 797 or LATAM 797 (3 units). The thesis (P A 799A or LATAM 799A) must treat a Latin American related topic in public administration and will be supervised by at least one public administration faculty and at least one member of the Latin American studies faculty. A culminating research experience (P A 797 or LATAM 797) must incorporate field research or an internship, and must result in a project that is approved by the graduate advisers in both programs.
- An internship of 12 units (one semester) beyond the coursework is required of students who have not had equivalent experience. Students should consult with the public administration graduate adviser before enrolling.
- Students must pass the American Council of Teachers of Foreign Language (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above.

Master of Public Health Degree and Master of Arts Degree in Latin American Studies

General Information

The Graduate School of Public Health (GSPH) and the Center for Latin American Studies offer a concurrent graduate program leading to a Master of Public Health (MPH) in Epidemiology, Environmental Health, or Health Promotion and Behavioral Science and a Master of Arts (MA) in Latin American Studies. This concurrent program offers preparation in the fields of public health and Latin American studies for the purpose of promoting health, preventing disease, and enhancing the delivery of social and health services in Latino communities.

Admission to the Degree Curriculum

To request information about the concurrent graduate program in Public Health and Latin American Studies, applicants should contact either the Graduate School of Public Health Director of the MPH/MA program, or the Latin American Studies Director of the M.A. program, San Diego State University. Students must meet the general requirements to graduate study at the university as detailed in Part Two of this bulletin. Application materials are also available from the GSPH website at <http://publichealth.sdsu.edu> or the Center for Latin American Studies website at <http://latinamericanstudies.sdsu.edu>.

Advancement to Candidacy

All students must: (1) meet the general requirements for advancement to candidacy as described in Part Four of this bulletin; (2) pass an evaluation of progress towards the concurrent degree by both GSPH and Latin American Studies advisers; (3) complete all core courses in Public Health and Latin American Studies; (4) have earned at least 24 units of graduate study within the concurrent program with a minimum grade point average of 3.0 and no grade less than a B- in each core course; (5) complete with a grade of B (3.0) or better, Spanish 302 or Portuguese 401, or three units of 500-level or graduate coursework in Spanish, or pass the American Council on the Teaching of Foreign Language (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above; (6) have been recommended for advancement by the combined faculty advisory committee; (7) have an approved concurrent program of study; and (8) have a thesis proposal approved by the combined faculty advisory committee, which must include at least one faculty member from Latin American Studies and one faculty member from Public Health.

Upon advancement to candidacy, the student will enroll in Public Health or Latin American Studies 797 (Research) and Public Health or Latin American Studies 799A (Thesis). All students in the concurrent degree program are required to complete a thesis. This thesis will incorporate theory, method, and analytic techniques from both Public Health and Latin American Studies. The thesis topic and chair will be determined by the student and the faculty advisory committee.

Specific Requirements for the M.P.H./M.A. Degree

(Major Code: 49062) (SIMS Code: 997310)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 63 units as listed below.

General Requirements Total General Units = 39					
Core Courses (18 units)	Prescribed Electives (15 units from at least two departments)				Culminating Experience (6 units)
LATAM 600 (3) LATAM 601 (3) P H 601 (3) P H 602 (3) P H 604 (3) P H 605 (3)	LATAM 550 (3) LATAM 580 (3)* LATAM 696 (3)* LATAM 750 (3) LATAM 795 (3) LATAM 798 (3) ANTH 508 (3) ANTH 520 (3) ANTH 529 (3) ANTH 531 (3) ANTH 533 (3)* ANTH 582 (3)*	ANTH 583 (3)* ANTH 603 (3) ANTH 605 (3) GEOG 506 (3)* GEOG 573 (3)* GEOG 574 (3)* HIST 550 (3) HIST 551 (3) HIST 558 (3) HIST 580 (3)* HIST 640 (3)* POL S 555 (3)	POL S 562 (3) POL S 564 (3) POL S 565 (3) POL S 566 (3) POL S 567 (3) POL S 568 (3) POL S 655 (3) POL S 661 (3)* POL S 667 (3) POL S 696 (3) PORT 535 (3) SOC 522 (3)*	SOC 554 (3) SOC 730 (3)* SPAN 602 (3) SPAN 606 (3) SPAN 751 (3)* SPAN 752 (3) SPAN 760 (3) WMNST 512 (3) WMNST 565 (3) WMNST 580 (3) WMNST 605 (3)	P H 797 or LATAM 797 (3) P H 799A or LATAM 799A (3)

Public Health Concentration Requirements Total Units = 24 (Students must complete one of the following concentrations)		
Epidemiology Concentration (SIMS Code: 997311) Total Epidemiology Units = 24 Required Courses (15 units) P H 603 (3) P H 621 (3) P H 622 (3) P H 623 (3) P H 627 (3) Prescribed Electives (6 units) P H 625 (3) P H 724 (3) P H 626 (3) P H 726 (3) P H 628 (3) P H 823 (3) P H 649 (3) P H 824 (3) P H 700A (3) Electives (3 units) BIOL 585, NUTR 600, 607, 700, STAT 550, 551A, 560, 672, 677, or three units of electives to be selected with approval of the faculty advisory committee.	Health Promotion and Behavioral Science Concentration (SIMS Code: 997314) Total Health Promotion and Behavioral Science Units = 24 Required Courses (15 units) P H 607 (3) P H 661 (3) P H 662 (3) P H 663 (3) P H 666 (3) Prescribed Electives (6 units) P H 664 (3) P H 667 (3) P H 668 (3) P H 700F (3) P H 762 (3) Electives (3 units) Three units to be selected with the approval of the faculty advisory committee.	Environmental Health Concentration (SIMS Code: 997313) Total Environmental Health Units = 24 Required Courses (21 units) P H 603 (3) P H 632 (3) P H 634 (3) P H 636 (3) P H 638A (3) P H 639 (3) P H 650R (3) Cr/NC Prescribed Electives (at least 3 units) P H 630 (3) P H 700D (3) P H 784 (3) P H 798 (1-6) Cr/NC/RP

*Acceptable when of relevant content; check with the Latin American Studies graduate adviser before enrolling.

Courses Acceptable for Master's Degree Programs in Latin American Studies (LATAM)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

LATAM 545. The Latin American City (3)

Prerequisite: Upper division or graduate standing in Latin American studies, anthropology, Chicana and Chicano studies, history, political science, or sociology.

History and theory of urbanization in Latin America to include urban landscapes, rural to urban migrations, re-creation of community within urban centers, modified identities, globalized labor, segregation, and community borders.

LATAM 550. Mexican-US Border from a Latin American Perspective (3)

Prerequisites: Six upper division units with Latin American content. Spanish proficiency.

Multidisciplinary analysis of Mexican-US border region.

LATAM 556. History of Brazil (3) (Same course as History 556)

Prerequisite: Upper division or graduate standing.

Economic, political, and social history of Brazil from precolonial era to present. Democratic and dictatorial rule, industrialization, populism, race and racism, and slavery.

LATAM 580. Special Topics (1-4)

Prerequisites: 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.

Anthropology Courses (ANTH)

ANTH 508.	Medical Anthropology.....	3
ANTH 520.	Ethnographic Field Methods.....	3
ANTH 529.	Urban Anthropology.....	3
ANTH 531.	Methods in Applied Anthropology.....	3
ANTH 533.	Race, Ethnicity, and Identity*.....	3
ANTH 540.	Contemporary Cultures of Mesoamerica.....	3
ANTH 582.	Regional Anthropology*.....	3
ANTH 583.	Topical Anthropology*.....	3

Art Courses (ART)

ART 563.	Modern Mexican Art.....	3
ART 571A.	Modern Art of Latin America.....	3
ART 571B.	Contemporary Art of Latin America.....	3
ART 593.	History and Methodology of Art History*.....	3
ART 596.	Advanced Studies in Art and Art History*...1-4	

Communication Course (COMM)

COMM 596.	Selected Topics*.....	1-4
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Comparative Literature Courses (C LT)

C LT 594.	Topics in Literature and the Arts.....	3
C LT 596.	Topics in Comparative Literature*.....	3

Economics Courses (ECON)

ECON 561.	International Trade.....	3
ECON 565.	North American Economic Relations.....	3
ECON 592.	International Monetary Theory and Policy.....	3
ECON 596.	Experimental Topics*.....	3

Geography Courses (GEOG)

GEOG 506.	Landscape Ecology*.....	3
GEOG 507.	Geography of Natural Vegetation.....	3
GEOG 509.	Regional Climatology.....	3
GEOG 554.	World Cities: Comparative Approaches to Urbanization.....	3
GEOG 573.	Population and the Environment*.....	3
GEOG 574.	Water Resources*.....	3
GEOG 596.	Advanced Topics in Geography*.....	1-3

History Courses (HIST)

HIST 550.	Colonial Mexico.....	3
HIST 551.	Modern Mexico.....	3
HIST 558.	Latin America in World Affairs.....	3
HIST 580.	Topics in the History of War and Violence.....	3
HIST 596.	Selected Studies in History*.....	1-4

Journalism and Media Studies Courses (JMS)

JMS 574.	International Advertising*.....	3
JMS 591.	Global Technology: Creativity and Innovation in the Digital Age.....	3

Law

With the permission of the graduate adviser and the approval of the Division of Graduate Affairs, classified graduate students may take a maximum of nine units of law at California Western School of Law through an affiliation agreement between the two institutions. San Diego State students must be enrolled for graduate courses at San Diego State University in the semester they are taking courses at California Western School of Law.

Please consult with the graduate adviser for a listing of the specific law courses offered.

Political Science Courses (POL S)

POL S 531.	Interest Groups and Political Movements.....	3
POL S 555.	Comparative Political Systems.....	3
POL S 560.	Comparative Public Policy.....	3
POL S 562.	Religion and Politics in Comparative Perspective.....	3
POL S 564.	Political Ecology of Latin America.....	3
POL S 565.	Nations and Nationalism.....	3
POL S 566.	Political Change in Latin America.....	3
POL S 567.	Political Systems of Latin America.....	3
POL S 568.	Mexican Politics.....	3
POL S 577.	Politics of International Law.....	3

Portuguese Course (PORT)

PORT 535.	Brazilian Literature.....	3
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Sociology Courses (SOC)

SOC 522.	The Family in Comparative and Cross-Cultural Perspectives.....	3
SOC 554.	Sociology of the United States-Mexico Transborder Populations and Globalization...3	
SOC 596.	Current Topics in Sociology*.....	1-3

Spanish Courses (SPAN)

SPAN 502.	Genre Studies in Spanish American Literature.....	3
SPAN 515.	Mexican Literature.....	3
SPAN 596.	Selected Studies in Spanish*.....	3

Women's Studies Courses (WMNST)

WMNST 512.	Latinas in the Americas.....	3
WMNST 515.	Women: Myth, Ritual, and the Sacred.....	3
WMNST 530.	Women's Movements and Activism*.....	3
WMNST 565.	Women: Health, Healing, and Medicine.....	3
WMNST 580.	Women, Development, and the Global Economy.....	3
WMNST 581.	Women's Experiences of Migration*.....	3
WMNST 596.	Topics in Women's Studies*.....	3

*Acceptable when of relevant content.

GRADUATE COURSES

LATAM 600. Seminar in Latin American Studies (3)

Prerequisite: Graduate standing.

Core seminar in Latin American studies. Historical, conceptual, and methodological survey of Latin American studies from first European conquests in western hemisphere to end of twentieth century.

LATAM 601. Seminar on Methodology of Latin American Studies (3)

Prerequisite: Graduate standing.

Theories and methodologies of Latin American Studies.

LATAM 696. Experimental Topics (3)

Prerequisite: Graduate standing.

Intensive study in specific areas of Latin American studies. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

LATAM 750. Seminar: Study in Latin America (3)

Prerequisites: Graduate standing and acceptance into COLEF/SDSU Exchange program or other relevant exchange program with partner university in Latin America.

Selected topics seminar in Latin American studies. Students will be required to attend classes at a partner university in Latin America. May be repeated with new content. Maximum credit six units applicable to a master's degree.

LATAM 795. Latin American Studies Internship (3) Cr/NC

Prerequisites: Latin American Studies 601 and consent of instructor.

A 160-hour internship approved by instructor in public and private agency.

LATAM 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Research in one of the fields of Latin American studies. Maximum credit six units applicable to a master's degree.

LATAM 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff, to be arranged with the director and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

LATAM 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

LATAM 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

Anthropology Courses (ANTH)

ANTH 600.	Seminar*3
ANTH 602.	Seminar in Archaeology.....	3
ANTH 603.	Seminar in Ethnology.....	3
ANTH 605.	Seminar in Applied Anthropology.....	3
ANTH 621.	Seminar in Topical Anthropology.....	3
ANTH 797.	Research.....	3 (Cr/NC/RP)
ANTH 798.	Special Study.....	1-3 (Cr/NC/RP)

Art Courses (ART)

ART 760.	Seminar in Twentieth Century Art.....	3
ART 798.	Special Study.....	1-3 (Cr/NC/RP)

City Planning Course (C P)

C P 670.	History of Urban Planning	3
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Communication Course (COMM)

COMM 798.	Special Study.....	1-3 (Cr/NC/RP)
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Economics Courses (ECON)

ECON 696.	Experimental Topics*.....	3
ECON 700.	Seminar in Microeconomic Applications*	3
ECON 720.	Seminar in Development and Planning*.....	3
ECON 730.	Seminar in Macroeconomic Policy.....	3
ECON 750.	Seminar in History of Economic Thought*.....	3
ECON 797.	Research.....	3 (Cr/NC/RP)
ECON 798.	Special Study.....	1-3 (Cr/NC/RP)

English Courses (ENGL)

ENGL 604.	Seminar: Literary Period or Movement*	3
ENGL 606.	Seminar: A Literary Type*	3
ENGL 626.	Comparative Literature*	3
ENGL 696.	Special Topics*.....	3
ENGL 700.	Seminar: A Major Author or Authors*.....	3
ENGL 726.	Seminar: Issues in Comparative Literature*.....	3
ENGL 798.	Special Study.....	1-3 (Cr/NC/RP)

Geography Courses (GEOG)

GEOG 696.	Advanced Special Topics in Geography*.....	3
GEOG 740.	Seminar in Human Geography*	3
GEOG 760.	Seminar in Behavioral and Social Geography*.....	3
GEOG 797.	Research.....	1-3 (Cr/NC/RP)
GEOG 798.	Special Study.....	1-3 (Cr/NC/RP)

History Courses (HIST)

HIST 640.	Directed Readings in Latin American History	3
HIST 795.	Area Studies in History*	3 (Cr/NC)
HIST 797.	Research.....	3 (Cr/NC/RP)
HIST 798.	Special Study.....	1-3 (Cr/NC/RP)

Journalism and Media Studies Course (JMS)

JMS 701.	Seminar: Mass Communication Problems*.....	3
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Political Science Courses (POL S)

POL S 655.	Seminar in General Comparative Political Systems*.....	3
POL S 661.	Seminar in the Political Systems of the Developing Nations*.....	3
POL S 667.	Seminar in Latin American Political Systems	3
POL S 675.	Seminar in International Relations*.....	3
POL S 795.	Problem Analysis*.....	3
POL S 797.	Research in Political Science	3 (Cr/NC/RP)
POL S 798.	Special Study.....	1-3 (Cr/NC/RP)

Public Administration Course (P A)

P A 798.	Special Study.....	1-3 (Cr/NC/RP)
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Sociology Courses (SOC)

SOC 696.	Experimental Topics*.....	3
SOC 730.	Seminar in Social Institutions.....	3
SOC 798.	Special Study.....	1-3 (Cr/NC/RP)

Latin American Studies

Spanish Courses (SPAN)

SPAN 601.	Seminar in Hispanic Literary Theory	3
SPAN 602.	Foundations and Research Methods of Hispanic Linguistics	3
SPAN 606.	Spanish American Literature: Independence to Present.....	3
SPAN 696.	Selected Topics*	3
SPAN 750.	Seminar in Spanish American Literature	3
SPAN 751.	Seminar in Realism*	3
SPAN 752.	Seminar in Literature and Culture of the Fin-de-Si�cle.....	3
SPAN 755.	Seminar in Spanish American Culture, Film, and Society.....	3
SPAN 760.	Seminar in Reading in the Transatlantic Imaginary	3
SPAN 770.	Applied Spanish Linguistics for Teachers	3
SPAN 798.	Special Study.....	1-3 (Cr/NC/RP)

Television, Film and New Media Course (TFM)

TFM 798.	Special Study.....	1-3 (Cr/NC/RP)
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Women's Studies Courses (WMNST)

WMNST 601.	Foundations of Feminist Scholarship	3
WMNST 602.	Seminar: Methods of Inquiry in Women's Studies	3
WMNST 603.	Seminar: Advanced Feminist Theory	3
WMNST 604.	Seminar: Gender, Culture, and Representation	3
WMNST 605.	Seminar: Women and Social Policy.....	3
WMNST 609.	Seminar: Transnational Issues and Gender*	3
WMNST 696.	Selected Topics in Women's Studies*	3-6
WMNST 798.	Special Study.....	1-3 (Cr/NC/RP)

*Acceptable when of relevant content.

Learning Design and Technology

IN THE SCHOOL OF JOURNALISM AND MEDIA STUDIES
IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Professional Studies and Fine Arts 361
TELEPHONE: 619-594-5450 / **FAX:** 619-594-6246
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Faculty

Marcie J. Bober-Michel, Ph.D., Professor of Learning Design and Technology, Area Coordinator (Graduate Adviser)
Bernard J. Dodge, Ph.D., Professor of Learning Design and Technology
Minjuan Wang, Ph.D., Professor of Learning Design and Technology

General Information

Learning Design and Technology offers graduate study leading to a Master of Arts degree in education with a concentration in learning design and technology. The concentration enables students to prepare for careers as performance technologists, instructional designers, corporate trainers, and elearning practitioners. State-of-the-art coursework and internships in companies, agencies, and schools prepare candidates to analyze performance problems and design, develop, and evaluate instructional strategies, and products. Students graduate with a portfolio to include video, multimedia, print and online materials. For further information, contact the area coordinator of learning design and technology.

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Journalism and Media Studies (refer to the appropriate degree section for the address to submit additional information).

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Learning Design and Technology

Complete the program application electronically. See http://jms.sdsu.edu/index.php/admissions/ldt_admissions_requirements for details.

Master of Arts Degree in Education

Admission to the Degree Curriculum

Applicants must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

In addition to meeting the requirements for admission to the university with classified graduate standing, the student must satisfy the basic requirements for the master's degree described in Part Four of this bulletin. Students must also meet the requirements as described below. Courses common to the concentration are Learning Design and Technology 690 and Plan A, which requires Education 799A, or Plan B, in which three options are available, Education 791A (3 units) and 791B (1 unit); or Education 791A (3 units) and 791B (3 units); or Education 795A (3 units) and 795B (3 units). All candidates for the Master of Arts degree in education who elect Plan B must pass a comprehensive examination.

The Comprehensive Examination

This written examination, designed to evaluate achievement in the concentration, is required of all candidates for the master's degree in education. A student is eligible to take the comprehensive examination only after advancement to candidacy.

The examination is offered during the semester in which students are enrolled in Education 795B. For information on examination dates, contact the area coordinator of learning design and technology.

Selection of Plan A or Plan B

In general, applicants will be programmed for Plan B, the seminar plan. After the student is approximately half way through the program, has secured an adviser and established a thesis plan, permission to transfer to Plan A may be requested. Plan A is designed for students who have a particular research problem they wish to investigate in some detail. Requests for transfer to Plan A must be prepared as an official change in program for the master's degree, countersigned by the faculty adviser, and submitted to the Office of Graduate Programs in the College of Education.

Both Plan B options provide students the opportunity (1) to have two experiences which emphasize research or evaluation and writing, (2) to participate actively in the projects of the other members of the seminar, and (3) to subject their own work to critical evaluation by the other seminar members. Both plans require the ability to formulate and define research or evaluation problems, to assemble data pertinent to the problem, to draw conclusions, and to present the study in acceptable written form. It is expected that the two seminars will be at least as demanding as the thesis with respect to the difficulty and quantity of work required. Selection of one of the Plan B options must be made with the approval of the master's degree faculty adviser.

Course Requirements

Students should consult with the master's degree adviser prior to taking coursework leading to the Master of Arts degree.

Concentration in Learning Design and Technology (Major Code: 08992) (SIMS Code: 664642)

Course requirements for the concentration include:

LDT 690	Research Methods for Learning Design.....	3
1. Core program (6 units)		
LDT 540	Educational Technology	3
LDT 544	Instructional Design.....	3
2. Electives (15-18 units): Courses in education and related fields, selected with the approval of the adviser on the basis of the student's interests and goals. A minimum of nine units must be taken in courses at the 600- and 700-level.		
3. Research (3-6 units)		
ED 791A	Evaluation Techniques.....	3
AND		
ED 791B	Practicum: Evaluation.....	1-3
OR		
ED 795A	Seminar.....	3
AND		
ED 795B	Seminar.....	3
OR		
ED 799A	Thesis	3 (Cr/NC/RP)

Specialization in Educational Computing within Learning Design and Technology Concentration (Major Code: 08992) (SIMS Code: 664643)

Students specializing in educational computing must include Learning Design and Technology 544 and 572 in their program of study. Recommended electives to be approved by the program adviser include Learning Design and Technology 561, 596, 670, 671, 684, 775, and Special Education 650. The specialization prerequisite is Learning Design and Technology 540.

Specialization in Workforce Education and Lifelong Learning (Major Code: 08992) (SIMS Code: 664644)

This specialization will allow students to prepare themselves as professionals who will focus on the development of education and training programs for youth and adults who are traditionally under-educated, non-college educated and who work in non-management jobs.

Students specializing in Workforce Education and Lifelong Learning pursue the following program: The prerequisite is Learning Design and Technology 540. Learning Design and Technology 544 is a required course to be included in the core. Recommended electives to be approved by the program adviser may include: Learning Design and Technology 572, 640, 650, 670, 684, 685; Administration, Rehabilitation and Postsecondary Education 631, 730, 747; Dual Language and English Learner Education 601; Teacher Education 631, 639.

Distance Education Certificate (SIMS Code: 664603)

This certificate program will provide necessary skills to in-service managers, instructors, instructional designers, evaluators, local site coordinators, and other professionals working in distance education systems and programs in higher education, K-12, business, and government, including personnel in law enforcement, and the military. Students who complete the certificate program and meet all other criteria may apply to be admitted to the M.A. program in learning design and technology. For application or further information, see the program adviser in Learning Design and Technology.

Prerequisites: A bachelor's degree from an accredited institution with a grade point average of at least 2.85 (when A equals 4) in the last 60 semester (90 quarter) units attempted. A satisfactory score on the verbal and quantitative sections of the GRE General Test (combined score of 950). At least three years of experience in distance, open or extended education, training, HRD or a related field. Mastery in telecommuting and learning new information technology applications.

Required courses (9 units):

LDT 640	Psychology of Technology-Based Learning.....	3
LDT 650	eLearning Design and Development.....	3
LDT 684	Managing the Learning Design Process	3

Electives: (3 units) to be selected from the following with approval of program adviser:

LDT 544	Instructional Design.....	3
LDT 670	Learning Through Games and Simulations	3
LDT 671	Learning Environment Design	3
LDT 685	Performance Technology for Organizations	3
LDT 700	Seminar in Learning Design and Technology: Best Practices in Distance Education	1
LDT 700	Seminar in Learning Design and Technology: Cybergogy and Engaged Learning	1
LDT 700	Seminar in Learning Design and Technology: Management Issues in Distance Education....	1

Instructional Design Certificate (SIMS Code: 664602)

The purpose of this certificate is to prepare specialists who can develop or assist in the development of software to meet specific instructional, training or management needs. There are two competency areas incorporated in the certificate: instructional design and educational computing. Students must complete a minimum of

18 units with a 3.0 (B) grade point average and no less than a C in any course. For application or further information, see the director of the program in Learning Design and Technology.

Prerequisites: A bachelor's degree from an accredited institution with a grade point average of at least 2.85 (when A equals 4) in the last 60 semester (90 quarter) units attempted. A satisfactory score on the verbal and quantitative sections of the GRE General Test.

Required courses (6 units):

LDT 540	Educational Technology	3
LDT 544	Instructional Design.....	3

Elective courses: Twelve units at the 600- or 700-level to be selected with the approval of the program director.

Instructional Technology Certificate

Refer to *General Catalog*.

Courses Acceptable for Master's Degree Program in Education (LDT)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

LDT 515. Games, Play, and Learning (3)

Prerequisite: Upper division or graduate standing.

Analysis of games and play from cognitive, historical, motivational, and social perspectives. Design of simple learning games. Survey of the game industry and use of games in education and training.

LDT 525. Virtual Reality, Imaginary Worlds, and Future of Learning (3)

Prerequisite: Upper division standing or admission to a graduate program in learning design and technology or journalism and media studies.

Learning experiences using virtual reality and worlds. Cognitive load in novel environments, sensory perception, theories and models of social interaction. Implications of virtual interaction.

LDT 532. Producing Digital Learning Media (1-3)

Two hours of activity per unit.

Digital learning media production for professionals in health, law, science, business, publishing, and other settings. Use of web- and video-based technologies, presentation, and data analysis tools for training and education. Not open to students in learning design and technology master's concentration or certificate programs. (Formerly numbered Educational Technology 532.)

LDT 540. Educational Technology (3)

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. (Formerly numbered Educational Technology 540.)

LDT 541. Educational Web Development (3)

One lecture and six hours of laboratory.

Prerequisite: Basic computer literacy.

Systems, graphic design, and usability principles applied to design and development of web-based educational multimedia. Planning and prototyping digital media. (Formerly numbered Educational Technology 541.)

LDT 544. Instructional Design (3)

One lecture and six hours of laboratory.

Prerequisite: Learning Design and Technology 540.

Systematic design of products for education and training. Use of analyses and content mapping to set instructional goals. Instructional methods derived from learning theories for use in schools, universities, corporations, and other settings. Rapid prototyping of instructional products. (Formerly numbered Educational Technology 544.)

LDT 561. Advanced Multimedia Design for Learning (3)

Six hours of activity.

Prerequisite: Learning Design and Technology 540.

Educational visualization with digital video, animation, sound, 2D and 3D graphics for mobile and web-based learning. (Formerly numbered Educational Technology 561.)

LDT 570. Advanced Teaching with Technologies (3)

Prerequisite: Learning Design and Technology 470 or equivalent work experience.

Design of project-based and problem-based learning using Internet resources. Constructivist learning with online databases. Collaboration with distant classrooms and experts. (Formerly numbered Educational Technology 570.)

LDT 572. Managing the Technology-Rich Classroom (3)

One lecture and six hours of laboratory.

Prerequisite: Learning Design and Technology 540.

Use of technology to support planning, presenting, and managing instructor-led courses. Strategies for integrating audience response systems, collaborative tools, and social software into courses. (Formerly numbered Educational Technology 572.)

LDT 596. Topics in Learning Design and Technology (1-3)

Selected problems in educational technology. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES**LDT 630. Mobile Applications for Learning (3)**

Two lectures and two hours of activity.

Prerequisites: Learning Design and Technology 540 and 541.

Mobile learning models and examples. Design principles and development processes. Adapting mobile learning for different environments, settings, and cultures. Future trends.

LDT 640. Psychology of Technology-Based Learning (3)

Six hours of activity.

Prerequisite: Learning Design and Technology 544.

Principles of human learning and cognition applied to design and use of technology-based learning systems. Development of research-based guidelines for designing educational products and services. (Formerly numbered Educational Technology 640.)

LDT 650. eLearning Design and Development (3)

Two lectures and three hours of laboratory.

Prerequisite: Learning Design and Technology 544. Recommended: Learning Design and Technology 572.

Theories and models of online learning at home, work, school, and university. Analysis, design, and development of e-learning courses and systems. Future societal and economic impacts of learning at a distance. (Formerly numbered Educational Technology 650.)

LDT 670. Learning Through Games and Simulations (3)

One lecture and six hours of laboratory.

Prerequisites: Learning Design and Technology 540 and 541.

Design, evaluation, and use of simulations and games for education and training. Instructional applications of role plays, board games, and multiplayer virtual worlds. Theories of motivation and interest. (Formerly numbered Educational Technology 670.)

LDT 671. Learning Environment Design (3)

One lecture and six hours of laboratory.

Prerequisites: Learning Design and Technology 544 and 561.

Design and development of individualized instruction delivered through e-learning; learning management systems; informal learning for corporate and museum education. (Formerly numbered Educational Technology 671.)

LDT 680. Evaluation Techniques for the Performance Technologist (3)

Two lectures and two hours of activity.

Prerequisites: Learning Design and Technology 540. Recommended: Learning Design and Technology 690.

Design and use of tools to collect, analyze, and communicate data about learning and performance. (Formerly numbered Educational Technology 590 and 680.)

LDT 684. Managing the Learning Design Process (3)

Six hours of workshop and activities.

Prerequisites: Learning Design and Technology 540 and 541. Recommended: Learning Design and Technology 544.

Management of instructional design and performance interventions. Development of timelines, staffing plans, communication strategies, and budgets. (Formerly numbered Educational Technology 684.)

LDT 685. Performance Technology for Organizations (3)

Six hours of workshop and activities.

Prerequisites: Learning Design and Technology 540 and 541.

Organizational and informational systems that support instructional products and services. Individual, team, and organizational analyses. Incentives, feedback, coaching, job-aids, selection, knowledge management, and other performance improvement strategies. (Formerly numbered Educational Technology 685.)

LDT 690. Research Methods for Learning Design (3)

Two lectures and three hours of activity.

Prerequisite: Admission to the master's degree program.

Planning and executing research in learning design. Analyzing, interpreting, and reporting results to stakeholders.

LDT 696. Advanced Topics in Learning Design and Technology (1-3)

Prerequisite: Graduate standing.

Intensive study in specific areas of learning design and technology. May be repeated with new content. Maximum credit six units. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

LDT 700. Seminar in Learning Design and Technology (1-3)

Prerequisite: Learning Design and Technology 540.

Selected areas, topics in educational technology. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. (Formerly numbered Educational Technology 700.)

LDT 775. Directed Internship in Learning Design and Technology (2-6) Cr/NC

Prerequisite: Consent of staff; to be arranged with department chair.

Supervised internship in an educational or training setting. Application to take course must be made during preceding semester. (Formerly numbered Educational Technology 775.)

LDT 795. Capstone Seminar in Learning Design and Technology (3)

Prerequisites: Advancement to candidacy and Learning Design and Technology 690.

Learner and content analysis, needs assessment, and product design, development, and evaluation for authentic learning design and performance problems and opportunities.

LDT 798. Special Study (1-6) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. May involve fieldwork. Maximum credit six units applicable to a master's degree. (Formerly numbered Educational Technology 798.)

LDT 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

LDT 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

Lesbian, Gay, Bisexual, and Transgender Studies

OFFERED BY THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 317

TELEPHONE: 619-594-6662

Faculty Committee for Lesbian, Gay, Bisexual, and Transgender Studies

Esther D. Rothblum, Ph.D., Professor of Women's Studies,
Director of Program (Graduate Adviser)

Edith J. Benkov, Ph.D., Professor of French, Emeritus

Susan E. Cayleff, Ph.D., Professor of Women's Studies
[Senate Distinguished Professor]

Heather L. Corliss, Ph.D., Professor of Public Health

William F. Eadie, Professor of Journalism and Media Studies,
Emeritus and Interim Associate Vice President for Academic
Affairs, Faculty Advancement

Patricia J. Geist-Martin, Ph.D., Professor of Communication [Senate
Distinguished Professor]

Huma Ahmed Ghosh, Ph.D., Professor of Women's Studies

Mathew S. Kuefler, Ph.D., Professor of History

Kurt J. Lindemann, Ph.D., Professor of Communication

Khaleel Mohammed, Ph.D., Professor of Religious Studies

Ronnee D. Schreiber, Ph.D., Professor of Political Science

Pablo E. Ben, Ph.D., Associate Professor of History

Michael K. Borgstrom, Ph.D., Associate Professor of English

Jerel P. Calzo, Ph.D., Associate Professor of Public Health

David P. Cline, Ph.D., Associate Professor of History

Roddrick A. Colvin, Ph.D., Associate Professor of Public Affairs

Victoria C. González-Rivera, Ph.D., Associate Professor of
Chicana and Chicano Studies

Yetta Howard, Ph.D., Associate Professor of English and
Comparative Literature

Minjeong Kim, Ph.D., Associate Professor of Sociology

Walter D. Penrose, Jr., Ph.D., Associate Professor of History

Allison A. Vaughn, Ph.D., Associate Professor of Psychology

Antwanisha V. Alameen-Shavers, Ph.D., Assistant Professor of
Africana Studies

Aaron J. Blashill, Ph.D., Assistant Professor of Psychology

Marie E. Draz, Ph.D., Assistant Professor of Philosophy

Angel D. Matos, Ph.D., Assistant Professor of English

Arianne E. Miller, Ph.D., Assistant Professor of Counseling
and School Psychology

Nathian S. Rodriguez, Ph.D., Assistant Professor of Journalism
and Media Studies

Lianne Urada, Ph.D., Assistant Professor of Social Work

Debra A. Elliott, M.A., Lecturer in Sociology

General Information

San Diego State University is one of the few institutions in the United States to offer an undergraduate major, minor, and advanced certificate in lesbian, gay, bisexual, and transgender (LGBT) studies.

LGBT studies is an interdisciplinary program, not affiliated with any one department. Courses offered include LGBT literature, history of sexuality, media and sexuality, psychology of human sexual behavior, sexuality in modern society, valuing human diversity, and lesbian lives and cultures.

Lesbian, Gay, Bisexual, and Transgender Studies Advanced Certificate

(SIMS Code: 119507)

The advanced certificate in Lesbian, Gay, Bisexual, and Transgender (LGBT) Studies is open to matriculated students to advance their knowledge in sexual and gender identity, and increase understanding of the diverse cultural, historical, ethnic/racial, and contemporary experiences of people across sexualities. The focus is on the changing nature of same-sex desire, sexual behavior, and same-sex relationships from antiquity to the present. Courses focus on emerging LGBT subcultures and identities from a global perspective. Throughout the program of study, we will carefully consider the full range of genders, sexualities, races, ethnicities, classes, physical abilities, religions, and political persuasions that characterize current LGBT movements and communities.

Courses are designed to provide students with a comprehensive, integrated, and scholarly education. The certificate also exposes students to community service and activism via a large selection of internships.

A certificate in LGBT Studies prepares students for a large variety of careers. Students can work in LGBT non-profit agencies, law, local and national politics, health care settings, counseling centers, journalism, news media, theatre, film, fine arts, and education.

The advanced certificate requires 12 units to include Lesbian, Gay, Bisexual, and Transgender Studies 598; nine units from English 550, 625*, 725*; History 583*, 640*; Religious Studies 581*; Women's Studies 535, 545, 606, 608, 610. A minimum of six units required at the 600- or 700-level. Additional courses are acceptable with approval of the adviser. Courses in the certificate program may be applied to a master's degree (if applicable) with approval of the adviser. For further information, contact the graduate adviser at 619-594-6662 or visit <http://lgbt.sdsu.edu>.

*With approval of adviser.

Courses (LGBT)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

LGBT 596. Selected Topics in Lesbian, Gay, Bisexual, and Transgender Studies (1-3)

Prerequisite: Upper division or graduate standing.

Selected topics in lesbian, gay, bisexual, and transgender 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

LGBT 598. Lesbian, Gay, Bisexual, and Transgender Studies Internship (3) Cr/NC

Prerequisite: Lesbian, Gay, Bisexual, and Transgender Studies major or minor.

Lesbian, gay, bisexual, and transgender studies theories and scholarship to community service and activism. Internship includes 120 hours of work in local public and private agencies serving LGBT populations and working towards LGBT equality. Maximum credit six units.

Liberal Arts and Sciences

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Nasatir Hall 203

TELEPHONE: 619-594-4826 / FAX: 619-594-1325

E-MAIL: clewis@rohan.sdsu.edu

WEBSITE: <http://www.malas.sdsu.edu>

Director: William A. Nericcio, Ph.D.

Program Coordinator: David "McHank" McHenry

Participating Faculty

Stuart C. Aitken, Ph.D., Albert W. Johnson Distinguished Professor of Geography and The June Burnett Chair in Children's and Family Geographies

Peter C. Atterton, Ph.D., Professor of Philosophy and Associate Dean of the College of Arts and Letters

Edward J. Blum, Ph.D., Professor of History

Susan E. Cayleff, Ph.D., Professor of Women's Studies
[Senate Distinguished Professor]

Sarah S. Elkind, Ph.D., Professor of History

Patricia J. Geist-Martin, Ph.D., Professor of Communication
[Senate Distinguished Professor]

Huma Ahmed Ghosh, Ph.D., Professor of Women's Studies

D. Emily Hicks, Ph.D., Professor of English and Comparative Literature and Chicana and Chicano Studies

Donald J. Hopkins, Ph.D., Professor and Director of Theatre, Television, and Film

Risa Levitt Kohn, Ph.D., Professor of Religious Studies and Chair of Classics and Humanities and Religious Studies

Seth W. Mallios, Ph.D., Professor of Anthropology

William A. Nericcio, Ph.D., Professor of English and Comparative Literature (Graduate Adviser)

Sthaneshwar Timalisina, Ph.D., Professor of Religious Studies

Sandra A. Wawrytko, Ph.D., Professor of Philosophy and Director of Asian Studies

Steven L. Barbone, Ph.D., Associate Professor of Philosophy

Michael K. Borgstrom, Ph.D., Associate Professor of English and Chair of English and Comparative Literature

Jung Min Choi, Ph.D., Associate Professor of Sociology

Roberto D. Hernández, Ph.D., Associate Professor of Chicana and Chicano Studies

Yetta Howard, Ph.D., Associate Professor of English and Comparative Literature

David M. Kamper, Ph.D., Associate Professor and Chair of American Indian Studies

Doreen J. Mattingly, Ph.D., Associate Professor and Chair of Women's Studies

Amy Schmitz Weiss, Ph.D., Associate Professor of Journalism and Media Studies

Joseph A. Smith, Ph.D., Associate Professor of Classics

Delroi E. Whitaker, Jr., Ph.D., Assistant Professor of Religious Studies

John and Jane Adams Endowment

John R. Adams was an esteemed faculty member of San Diego State University from 1928 until his retirement in 1968, whereupon he accepted the position of University Archivist. Dr. Adams was a professor of English and chair of the Division of Humanities. He and Jane Adams were generous benefactors to SDSU throughout their lives and they established a Charitable Living Trust to be used to promote liberal education. Today some of those funds are used in the MALAS program to support graduate assistantships and to help pay for academic retreats, workshops, and lectures.

General Information

The College of Arts and Letters offers a flexible multidisciplinary master's degree in the liberal arts and sciences (MALAS). An alternative approach to traditional graduate education, this always-evolving program consists of coursework that crosses disciplinary boundaries as graduate students master artistic, diverse, innovative, intellectual, and/or scientific goals through individualized courses. MALAS is an M.A. program for all kinds of

thinkers—while it caters to the intellectual desires of ambitious, new B.A. and B.S. recipients seeking full-time graduate study, it also serves the needs of national and international professionals and adult learners who seek to attend graduate school on a part-time basis. From explorations of the human condition to the social impacts of technology, the program focuses on issues central to the meaning and quality of our lives and the creation of sustainable, just, communities. In existence since 1987, MALAS is equally well suited to students who recently achieved the bachelor's degree, students preparing for the Ph.D., professionals for whom the master's degree may mean promotion or career advancement, and life-long learners in search of personal enrichment and intellectual community. We welcome and encourage applications from K-12 teachers, community activists, and policy makers.

MALAS draws upon SDSU faculty who are trained in disciplines but whose teaching and scholarship makes connections across disciplines. Interplays among the humanities, the social sciences, the natural sciences, and the arts are taken up in four required courses. These seminars seek to engage with contemporary life and construct positive futures but they also push the level of discourse to foundational questions of epistemology and philosophy. Particular attention is given to understanding the psychological, economic, and environmental consequences of globalization, and to the ways that human values are embodied in and transformed by modes of consumption, labor, and material culture. The four core courses act to ground and center five elective courses, selected by each student to customize a program that captures his or her interests.

Admission to Graduate Study

In addition to satisfying the requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin, the student seeking admission must: (1) have a grade point average of 3.0 or better on work completed during the last 60 units for the baccalaureate degree, (2) have an acceptable score on the GRE General Test (combined verbal and quantitative), (3) complete a statement of purpose essay, and (4) submit two letters of recommendation.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to Master of Arts in Liberal Arts and Sciences.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Arts in Liberal Arts and Sciences

The following materials should be submitted by November 1 (October 1 for international students) for admission for the spring semester and May 1 for the fall semester to:

Master of Arts in Liberal Arts and Sciences

San Diego State University
5500 Campanile Drive
San Diego, CA 92182-8137

1. A statement of purpose essay (minimum of 500 words) outlining research interests and strongest talents. Highly ranked statements include references to how the MALAS program would fit into your future;
2. Two letters of recommendation (one, at least, should be from a university professor familiar with your research, writing, or creative work). Letters of recommendation come directly to MALAS from the individuals writing the letter. Please ask your recommenders to use official letterhead when possible and to sign across the outside seal of their envelopes. Last minute applicants may arrange to have their letters of recommendation emailed directly to bnericci@mail.sdsu.edu;
3. A two-page essay describing the best class and/or professor you had as an undergraduate or graduate student.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, the students must (1) satisfactorily complete 12 units, with a minimum grade point average of 3.0, including 9 units of core seminars as stipulated (MALAS 600A, 600B, 600C, 600D) and (2) have a thesis or project proposal which has received the approval of the Graduate Liberal Arts and Sciences Committee and its director.

Specific Requirements for the Master of Arts Degree in Liberal Arts and Sciences

(Major Code: 49017) (SIMS Code: 114501)

In addition to meeting the basic requirements for the Master of Arts degree in Liberal Arts and Sciences as described in Part Four of this bulletin, the student must complete a graduate program of 30 units, 15 units of which must be in 600- and 700-level courses. Up to 15 units of coursework can be taken at the 500-level. The total program includes:

1. MALAS 601 (3).
2. MALAS 600A, 600B, 600C, or 600D in any combination (9 units). Each course may be repeated once with new content and, in excess of nine units, can be used for elective credit.
3. MALAS 799A (3): Thesis or Project, or MALAS 795 (3) Plan B, Comprehensive Examination.
4. 15 units of electives selected with approval of the MALAS director.

Students may select either Plan A or Plan B in consultation with the MALAS director. In addition to meeting the distribution requirements given above, students electing Plan A must complete MALAS 799A (Thesis or Project). Students electing Plan B must complete MALAS 795 (Studies in the Liberal Arts and Sciences) and pass a written comprehensive examination in lieu of the thesis.

All programs must be approved by the MALAS director in consultation with the Graduate Liberal Arts and Sciences Committee.

Courses Acceptable for Master's Degree Program in Liberal Arts and Sciences (MALAS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

MALAS 600. Interdisciplinary Study in Liberal Arts and Sciences (3-3-3-3)

Prerequisite: Graduate standing.

MALAS seminars are divided into four general areas with content that varies semester to semester. Each course may be repeated once with new content. See *Class Schedule* for specific content. Maximum credit six units for each of the following courses: MALAS 600A, 600B, 600C, 600D.

- A. Cultural Studies
- B. Science and Society, Environmental Studies
- C. Globalization, Technology, Future Studies
- D. Media Studies, Fine Arts, Transformative Arts

MALAS 601. Seminar in Interdisciplinary Thinking (3)

Prerequisite: Graduate standing.

Nature of interdisciplinary thinking. Ways of knowing and schools of thought in multiple disciplines. Interdisciplinary methods to analyze social issues. See *Class Schedule* for specific content.

MALAS 795. Studies in Liberal Arts and Sciences (3) Cr/NC

Prerequisite: Graduate standing.

Individual preparation for comprehensive examination for students taking the Master of Liberal Arts and Sciences under Plan B.

MALAS 798. Special Study (3) Cr/NC/RP

Prerequisite: Graduate standing.

Individual study on a given topic through interdisciplinary perspectives.

MALAS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for Master of Arts degree in Liberal Arts and Sciences.

MALAS 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in MALAS 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

MALAS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Linguistics

IN THE DEPARTMENT OF LINGUISTICS AND ASIAN/MIDDLE EASTERN LANGUAGES
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Storm Hall West 214

TELEPHONE: 619-594-5268 / **FAX:** 619-594-4877

WEBSITE: <http://linguistics.sdsu.edu>

Faculty

Betty T. R. Samraj, Ph.D., Professor of Linguistics,
Chair of Department

Eniko Csomay, Ph.D., Professor of Linguistics

Jean Mark Gawron, Ph.D., Professor of Linguistics

Yoshiko Higurashi, Ph.D., Professor of Japanese
(Director, Japanese Language Program)

Jeffrey P. Kaplan, Ph.D., Professor of Linguistics, Emeritus

Robert P. Malouf, Ph.D., Professor of Linguistics

Deborah Poole, Ph.D., Professor of Linguistics, Emeritus

Ruey-Jiuan Regina Wu, Ph.D., Professor of Linguistics and
Asian/Middle Eastern Languages

Zheng-Sheng Zhang, Ph.D., Professor of Chinese

Gregory D. Keating, Ph.D., Associate Professor of Linguistics
(Graduate Adviser)

Ryu Kitajima, Ph.D., Associate Professor of Japanese
(Japanese Language Adviser)

Associateships

Graduate teaching associateships in linguistics are offered each semester to a limited number of qualified students to teach introductory linguistics and the composition courses for international students.

General Information

The Department of Linguistics and Asian/Middle Eastern Languages offers graduate study leading to the Master of Arts degree in linguistics. The interdisciplinary program provides broad educational opportunities through two specializations: 1) General Linguistics, for those planning to pursue a doctorate in theoretical areas (e.g., syntax or phonology) or for those who plan to work in a language-related field in industry or education; 2) applied linguistics (TESOL), for students intending to teach or design curriculum for ESL/EFL/ELD classrooms (including community college and K-12 levels) or planning to pursue a doctorate in applied linguistics. In addition to completing coursework for one of the specializations, students are required to submit a thesis (Plan A) or pass a comprehensive examination (Plan B).

All students who complete the required program will receive a Master of Arts degree in linguistics. If requested, the department will provide a letter designating a student's specialization for purposes of employment or application for further study. The specializations and language research interests of faculty members in this program are:

Eniko Csomay – Classroom discourse, corpus linguistics, discourse analysis, language variation, research design and methods, and teaching English as a Second Language.

Jean Mark Gawron – Computational linguistics (machine translation, narrowing, parsing, pragmatic); semantics (anaphora, comparatives, lexical semantics, quantification).

Yoshiko Higurashi – Accent and intonation, intercultural communication, Japanese language teaching, speech pathology, syllable structure, phonology.

Jeffrey P. Kaplan – Discourse-functional syntax, English grammar, language and law, and pragmatics.

Gregory D. Keating – First, second, and heritage language acquisition, sentence processing in monolingual and bilingual speakers of Spanish and English.

Ryu Kitajima – Language assessment, second language acquisition, teaching methodologies and language pedagogy.

Robert P. Malouf – Computational linguistics, machine learning, morphology, syntax, and text analytics.

Deborah Poole – Classroom discourse analysis, ESL teaching methods and materials, language/literacy socialization, and literacy event connections of speech and writing.

Betty T. R. Samraj – Discourse analysis, English for specific purposes, ESL methods and materials, genre analysis, systemic-functional linguistics, and written academic discourse.

Ruey-Jiuan Regina Wu – Conversation analysis, functional linguistics, language assessment, language pedagogy, pragmatics, teaching methodologies, and teacher training.

Zheng-sheng Zhang – Chinese language (dialects, structure, stylistics, writing system); language pedagogy, technology for language teaching.

Admission to Graduate Study

In addition to meeting the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, the student must have a Bachelor of Arts degree in linguistics or a related field that would demonstrate adequate preparation for the program.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Linguistics and Asian/Middle East Languages.

Graduate Admissions

The following materials should be submitted directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682). All students are required to submit GRE scores. The required minimum scores in each section are 144 (quantitative), 153 (verbal), and 4.0 (writing);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682). Students who have a B.A. from a university where English is not the primary medium of instruction are required to submit either TOEFL iBT or IELTS scores. The required TOEFL iBT score is 90 or higher. The required IELTS score is 7.0 or higher. Note that these scores are higher than those required by the university.

Department of Linguistics and

Asian/Middle Eastern Languages

The following admissions materials must be submitted electronically.

1. Statement of purpose (250 words) which demonstrates an understanding of the SDSU program and which shows interest in an area of research that is within the department's score of expertise;
2. Names and e-mail addresses of two professors who can evaluate the applicant's academic potential for success in a rigorous M.A. program. Recommenders will receive an e-mail link to upload their letter of reference to DecisionDesk. Although we strongly encourage academic references, non-academic references (e.g., from employers) may be submitted if a significant amount of time has passed since earning the last degree.

Linguistics

A student who is deficient in any of the above requirements may be considered for conditional admission. A candidate may be required to complete specified courses or earn a minimum GPA within a specific time period in addition to completing the minimum 30 units required for the degree.

The fall semester graduate application (Cal State Apply online application) deadline is March 1. In order to ensure consideration, other application materials must be sent to the Office of Graduate Admissions (transcripts and test scores) and to the department (statement of purpose and recommendation letters) by April 1. Our program does not admit new students in the spring semester.

For information regarding the admissions process, visit the department website at <http://linguistics.sdsu.edu>.

Advancement to Candidacy

All candidates must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 15051)

(SIMS Code: 114701; Applied TESOL - 114705)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the Master of Arts degree, as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units of 500-, 600-, and 700-level courses to include Linguistics 503, 795, and three units from the following: Linguistics 502, 551, 552. A prerequisite to Linguistics 502, 503, 551, and 552 is completion of Linguistics 501 or equivalent. A minimum of 15 units must be from 600- or 700-level courses. Linguistics 505 does not count toward unit requirements for the Master of Arts degree in linguistics.

Students selecting the General Linguistics specialization must complete either Linguistics 621 or Linguistics 622, and six units from the following: Linguistics 610, 620, 626, 654, 696 (with general linguistics content).

Students selecting the applied linguistics (TESOL) specialization must complete Linguistics 652, 656, and at least six units from the following: Linguistics 650, 653, 655, and 657. An internship, Linguistics 740, is required of all students selecting this specialization who have not taught ESL previously.

Students selecting one specialization may enroll in courses from the other specialization as electives.

With the approval of the graduate adviser, a maximum of six units selected from the following courses will be accepted for graduate credit in linguistics: Anthropology 604; Computer Science 550, 560, 562, 596 (when offered with computational linguistics content), 620, 696 (when offered with computational linguistics content), Rhetoric and Writing Studies 602; Spanish 561, 770; Speech, Language, and Hearing Sciences 790, 793.

In addition, with approval of the graduate adviser, a student must choose either a thesis (Plan A), or a written comprehensive examination (Plan B). Plan A students must select a committee of three faculty, two of whom are from the department, to supervise the thesis. In consultation with the graduate adviser, students select one of two options at the time of filing an official program of study.

Advanced Certificate in Teaching English as a Second or Foreign Language (TESL/TEFL)

(SIMS Code: 114786)

The Department of Linguistics and Asian/Middle Eastern Languages offers a Basic and an Advanced Certificate in Teaching English as a Second or Foreign Language (TESL/TEFL). The Advanced Certificate requires Linguistics 652; two courses from Linguistics 650, 653, 655, and 657; and one course from Linguistics 530, 622, 651, 654, and 795 (when offered with applied linguistics content). Students must obtain a 3.0 GPA overall in the courses for the advanced certificate. The prerequisite for the Advanced Certificate is the Basic Certificate or its equivalent. A student's entire program comprising Basic and Advanced Certificates must include at least one course from Linguistics 430, 530, and 622. 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. For information on the Basic Certificate, please see the *General Catalog*.

Courses Acceptable for Master's Degree Program in Linguistics (LING)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

LING 501. Fundamentals of Linguistics (3)

Prerequisite: Upper division standing.

Principles of modern linguistics, with attention to English phonetics, phonology, morphology, syntax, semantics and pragmatics; universals and typology.

LING 502. Language in Mind and Society (3)

Prerequisite: Linguistics 501. **Proof of completion of prerequisite required:** Copy of transcript.

Child language acquisition, adult language production/comprehension and sociolinguistics. Dialects, language variation, and standardization. Bilingualism and language change.

LING 503. Functions of Language (3)

Prerequisite: Linguistics 501. **Proof of completion of prerequisite required:** Copy of transcript.

Empirical methods in linguistics. Phonological structure of English and other languages. Functional and discourse related approaches to language patterns. Connections between morpho-syntactic concepts and functional/discourse concepts to conduct text analysis.

LING 505. Writing for Graduate Students (3)

Prerequisite: Conditional or classified admission to an SDSU graduate program or undergraduates with consent of instructor.

Conventions of scholarly writing appropriate for student papers, theses, or academic journal articles. Development of research questions and literature reviews as appropriate for students' disciplines. Revision of current or previous course papers according to disciplinary conventions.

LING 521. Phonology (3)

Prerequisite: Linguistics 420 or 501.

Theoretical principles of transformational-generative phonology.

LING 522. Syntax (3)

Prerequisite: Linguistics 420 or 501.

Theoretical principles of transformational-generative syntax.

LING 523. Morphology (3)

Prerequisite: Linguistics 420 or 501.

Theoretical principles of words structure, including inflection, derivation, and compounding; organization of the lexicon; structure of inflectional paradigms; morphophonological and morphosyntactic alterations; and computational applications.

LING 525. Semantics and Pragmatics (3)

Prerequisite: Linguistics 420 or 501.

Advanced semantic theory; systematic analysis of the interaction of sequences of language with real world context in which they are used.

LING 526. Discourse Analysis (3)

Prerequisite: Linguistics 420 or 501.

Theories of discourse structure. Text and context. Frameworks for analyzing written and spoken discourses such as genre analysis, conversation analysis, critical discourse analysis, discourse and grammar, speech act theory, and corpus linguistics. Applications of discourse analysis such as cross-cultural misunderstanding.

LING 530. English Grammar (3)

Prerequisites: Six upper division units in linguistics.

English morphology, syntax, and discourse structure, including simple and complex sentence structure; lexical categories and 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 101, 420, or 501.

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 501.

Psychological and mental processes related to comprehension, production, perception, and acquisition of language in adults and children.

LING 555. Practical Issues in Teaching English as a Second Language (3)

Prerequisite: Credit or concurrent registration in Linguistics 550.

Practical approaches to applications of the theory of English as a Second Language (ESL) and methodology for speaking, reading, listening, writing; techniques for facilitating growth of communicative competence.

LING 556. Computer Assisted Language Learning and Teaching (3)

Prerequisite: Credit or concurrent registration in Linguistics 550.

Theory and practice of computer assisted language learning and language teaching. Hands-on experience with pedagogical aspects of using technology in the language classroom.

LING 571. Computational Corpus Linguistics (3)

Prerequisite: Upper division standing.

Practical introduction to computation with text corpora and introduction to Python. Tokenizing, part-of-speech tagging, and lemmatizing (stemming) large corpora. Writing of Python programs required.

LING 572. Python Scripting for Social Science (3)

Prerequisite: Upper division or graduate standing

Python scripting for social science data. Statements and expressions. Strings, lists, dictionaries, files. Python with unformatted data (regular expressions). Graphs and social networks. Spatial data and simple GIS scripts.

LING 581. Computational Linguistics (3)

(Same course as Computer Science 581)

Prerequisite: Linguistics 571 or 572 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 583. Statistical Methods in Text Analysis (3)

Prerequisites: Linguistics 571 or 572; and Statistics 550 or 551A.

Statistical methods for analysis of large texts to include Bayesian classifiers, Markov models, maximum entropy models, neural nets, and support vector machines. Data collection and annotation. Applications to annotation, relation detection, sentiment analysis, and topic modeling.

LING 596. Selected Topics in Linguistics (1-3)

Prerequisite: Upper division standing.

Advanced study of selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES**LING 610. Topics in Historical Linguistics (3)**

Prerequisite: Three upper division units in linguistics, preferably Linguistics 410, 501, or 521.

Methods and principles used in historical study of language; processes of language change in phonology, syntax, and semantics; linguistics reconstruction; origin of language; language families; development of writing. Analysis of Indo-European, Old English, or Middle English. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

LING 620. Advanced Formal Syntax (3)

Prerequisite: Linguistics 522.

Advanced study of formal syntactic theory.

LING 621. Advanced English Phonology (3)

Prerequisite: Linguistics 521.

English phonetics, phonemics, and phonological rules. Phonological differences among American English dialects. Survey of contemporary approaches to phonology.

LING 622. Discourse and Syntax (3)

Prerequisite: Linguistics 503, 522, or 530.

Functional and discourse-oriented approaches to syntax and syntactic approaches to discourse.

LING 623. Immigrant Languages (3)

Prerequisite: Linguistics 420 or 501.

Contrastive structure of selected languages representing significant immigrant populations in San Diego; emphasis on phonological, orthographic, morphological, lexical and syntactic features.

LING 626. Pragmatics (3)

Prerequisites: Linguistics 525 and six additional units of linguistics courses numbered 501 or higher (excluding Linguistics 505).

Gricean and neo-Gricean approaches to pragmatics; relevance theory; reference; presupposition; speech acts; information structure.

LING 650. Materials Development in Applied Linguistics (3)

Prerequisite: Linguistics 550.

Materials development and adaptation for teaching English as a second language and foreign language.

LING 651. Sociology of Language (3)

Prerequisite: Linguistics 551.

Public and private reasons for planned language behavior. Creoles, personal speech interaction patterns, bilingualism, cultural diversity in language use, social-theoretical background, language planning, and social uses of sexism in language.

Linguistics

LING 652. Second Language Acquisition (3)

Prerequisite: Linguistics 501.

Analyses of theories of second language acquisition; theoretical and empirical bases of current second language teaching methodologies.

LING 653. ESL Reading and Writing (3)

Prerequisite: Linguistics 550.

Application of discourse and reading theory to the teaching and testing of ESL reading and writing. Issues of coherence, process-product, genre studies.

LING 654. Language and Cognition (3)

Prerequisite: Linguistics 552.

Language production, comprehension, and acquisition, as these relate to human cognition.

LING 655. English for Specific Purposes and Content-Based Instruction (3)

Prerequisite: Linguistics 550.

Theory, practice, and history of these two related approaches to ESL/EFL.

LING 656. Quantitative Research Methods in Language Studies (3)

Prerequisite: Linguistics 420 or 501.

Research design and quantitative research methods for linguistic applications. Critical evaluation of published research studies; empirical research project.

LING 657. Foundations of Language Assessment (3)

Prerequisite: Linguistics 550.

Fundamental principles and goals of language assessment and language assessment research: characteristics of assessment methods; analyzing test tasks; designing test items; describing test scores; approaches to estimating reliability; validity and validation; authenticity and impact.

LING 696. Advanced Topics in Linguistics (1-3)

Prerequisite: Consent of instructor.

Advanced study in specific areas of linguistics. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

LING 740. Internship in English as a Second Language and Foreign Language Teaching (3) Cr/NC

Prerequisite: Linguistics 550.

Internship in teaching English as a second language and English as a foreign language, offering work experience with practicing professionals.

LING 795. Seminar in Linguistics (3)

Prerequisite: Completion of three units of 600- and 700-numbered courses in the master's program for linguistics.

Research in linguistics, course content varying according to instructor. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

LING 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair or instructor.

Individual study. Maximum credit six units applicable to a master's degree.

LING 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

LING 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

LING 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Management, Management Information Systems, and Marketing

Refer to "Business Administration" in this section of the bulletin.

Mathematics

IN THE DEPARTMENT OF MATHEMATICS AND STATISTICS
IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 413
TELEPHONE: 619-594-6191

Faculty

Michael E. O'Sullivan, Ph.D., Professor of Mathematics,
Chair of Department

Mathematics and Applications

Ricardo Carretero, Ph.D., Professor of Mathematics, Associate
Chair of Department (M.S. Dynamical Systems Graduate Adviser)

T. Marc Dunster, Ph.D., Professor of Mathematics,
Associate Chair of Department

Peter V. Blomgren, Ph.D., Professor of Mathematics

José E. Castillo, Ph.D., Professor of Mathematics
(M.S. Computational Science Graduate Adviser)

Stephen Y. Hui, Ph.D., Professor of Mathematics, Emeritus

J. Carmelo Interlando, Ph.D., Professor of Mathematics
(M.S. Communication Systems Graduate Adviser)

Joseph M. Mahaffy, Ph.D., Professor of Mathematics
(Applied Mathematics Graduate Adviser)

Antonio Palacios, Ph.D., Professor of Mathematics

Vadím Ponomarenko, Ph.D., Professor of Mathematics
(M.A. Mathematics Graduate Adviser)

Peter Salamon, Ph.D., Professor of Mathematics, Emeritus

Samuel S.P. Shen, Ph.D., Albert W. Johnson Distinguished
Professor of Mathematics

Stephen J. Kirschvink, Ph.D., Associate Professor of Mathematics

Bo-Wen Shen, Ph.D., Associate Professor of Mathematics

Christopher W. Curtis, Ph.D., Assistant Professor of Mathematics

Jérôme E. Gilles, Ph.D., Assistant Professor of Mathematics

Antoni Luque Santolaria, Ph.D., Assistant Professor of
Mathematics

Mathematics Education

Chris L. Rasmussen, Ph.D., Professor of Mathematics,
Associate Chair of Department, Mathematics Education

Joanne Lobato, Ph.D., Professor of Mathematics

Janet S. Bowers, Ph.D., Associate Professor of Mathematics

Susan D. Nickerson, Ph.D., Associate Professor of Mathematics
(M.A.T.S. Graduate Adviser)

Daniel L. Reinholz, Ph.D., Assistant Professor of Mathematics

William C. Zahner, Ph.D., Assistant Professor of Mathematics

Associateships

Graduate teaching associateships in mathematics are available to a limited number of qualified students. Application blanks and additional information may be secured from the chair of the department.

General Information

The Department of Mathematics and Statistics offers graduate study leading to the Master of Arts degree in mathematics, the Master of Arts degree for teaching service with a concentration in mathematics, the Master of Science degree in applied mathematics, the Master of Science degree in applied mathematics with a concentration in mathematical theory of communications systems, and the Master of Science degree in applied mathematics with a concentration in dynamical systems. The department also offers the Master of Science degree in statistics and the Master of Science degree in statistics with a concentration in biostatistics (see the Statistics section of this bulletin for a description of the statistics program and courses).

Faculty active in research direct theses and research projects in most general areas of the mathematical sciences: in complex analysis, differential equations, number theory, numerical analysis; in cognitive science, computer education and problem solving within mathematics education; in climate mathematics, computational mathematics, control theory, dynamical systems, mathematics of communication, mathematical physics, modeling and optimization within applied mathematics.

Opportunities for research in mathematics education are available through research facilities in the Center for Research in Mathematics and Science Education.

The department hires qualified graduate students as teaching associates. These positions serve as an important stepping stone on the path to a career in the teaching of mathematics at various levels.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials to SDSU Graduate Admissions.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, the student must have passed a qualifying examination in some programs.

Specific Requirements for the Master of Arts Degree in Mathematics

(Major Code: 17011) (SIMS Code: 776301)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must meet the following requirements:

1. Complete 30 units of approved 500-, 600-, and 700- level courses, of which at least 24 units must be in mathematics. At least 21 units must be at the 600-level or above. Mathematics 600, 601, and 602 may not be part of this degree. No more than six units of Mathematics 797 and 798 will be accepted toward the degree.
2. Before entering the program, students should have completed the following courses or their equivalents: Mathematics 320, 330, and 524. If a student has not completed these courses before entering the program, he or she may be admitted conditionally.
3. Among the 30 units of coursework, students must include Mathematics 620 and 630 and one course selected from Mathematics 621 or 633.

- Students must select Plan A and complete Mathematics 799A. Students are advised that a thesis normally takes a year to complete.

Specific Requirements for the Master of Science Degree in Applied Mathematics

(Major Code: 17031) (SIMS Code: 776314)

In addition to meeting the requirements for classified graduate standing, the student must meet the basic requirements for the master's degree as described in Part Four of this bulletin and complete 30 units of coursework approved by the graduate adviser.

- Undergraduate Preparation for Admission.** Before entering the program, students must complete the following upper division courses: two courses in analysis (to include Mathematics 330), two courses in differential equations (Mathematics 337 and either 531 or 537), one course in programming or numerical analysis (Mathematics 340 or 541), one course in linear algebra (Mathematics 524), and one course in statistics (Statistics 350A or 551A). Students with inadequate undergraduate preparation may be accepted conditionally but will be required to complete courses for removal of the deficiency in the first year of study.
- Program of study,** to include a plan for removal of any conditions on admission, must be approved by the graduate adviser. The program of study will include at least 21 units in mathematics. The 30 units may include at most 12 units of approved 500-level mathematics courses and at most six units of independent research (Mathematics 797, 798, 799A, 799B). The student must select Plan A, complete Mathematics 799A, Thesis, and give a public oral defense of the thesis. A thesis normally takes one year to complete and is done under the direction of a thesis adviser.

Concentration in Dynamical Systems

(Major Code: 17031) (SIMS Code: 776316)

This concentration focuses on interdisciplinary applications of dynamical systems and nonlinear modeling in biology, chemistry, engineering, and physics. Students with interests in modeling and analyzing real life problems through mathematics will benefit from this concentration. To enter the program, students must possess a bachelor's degree with a strong mathematical background. The requirements for this concentration are the same as the Specific Requirements for the Master of Science degree in Applied Mathematics with the exception that only one semester of mathematical analysis/advanced calculus (Mathematics 330) is required. Students pursuing this concentration will complete the following 15 units of core courses: Mathematics 531, 537, 538, 636, and 638; 12 units of electives; and three units of Mathematics 799A (Thesis/Project). Elective courses include Mathematics 542, 623, 668, 693A, 693B, 797; Physics 580. Elective courses from other departments may be approved by the adviser. For additional information, visit <http://nlds.sdsu.edu/masters>.

Concentration in Mathematical Theory of Communication Systems

(Major Code: 17031) (SIMS Code: 776317)

This concentration focuses on the area of mathematics relevant to the transmitting and processing of information by digital or analog methods. In addition to meeting the requirements for classified standing in the Master of Science program in applied mathematics, students pursuing this concentration should also have completed one upper division course in algebra (Mathematics 320) before entering the program. Students must complete Mathematics 525, 620, 626, 630, 668; one course selected from Mathematics 625 or 667, and one course selected from Mathematics 621 or 631A. Additional courses at the 500- or 600-level in mathematics or in a related discipline may be selected with the approval of the program adviser. The student must select Plan A, complete Mathematics 799A, Thesis, and give a public oral defense of the thesis. A thesis normally takes one year to complete and is done under the direction of a thesis adviser.

Communication Systems Certificate

(SIMS Code: 776347)

The Communication Systems Certificate provides mathematicians and engineers with the specialized training in the areas of coding, cryptography, and signal processing relevant for the understanding of modern communication systems. This certificate is designed for individuals who need the knowledge this certificate program provides to participate in projects in the area of communication systems and signal processing.

This is an advanced academic certificate at the postbaccalaureate level. The admission requirement is a bachelor's degree in mathematics, engineering, or a closely related field. Individuals with knowledge of the background materials through work or self-study may also be accepted into this program at the discretion of the program director.

Course requirements for the certificate program are the following courses completed with a grade point average of 3.0 or above: Mathematics 522, 525, 626, 667, and 668.

For information on the application process, contact the Department of Mathematics and Statistics or call 619-594-6191.

Courses Acceptable for Master's Degree Programs in Applied Mathematics, Mathematics, and Statistics (MATH)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

MATH 508. Dynamical Systems and Modeling (3)

Prerequisite: Mathematics 254 or graduate standing.

Differential equations using analytical, graphical, and numerical representations.

MATH 509. Computers in Teaching Mathematics (3)

Two lectures and three hours of laboratory.

Prerequisite: Mathematics 252 with a grade of C (2.0) or better.

Proof of completion of prerequisite required: Copy of transcript.

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)

Prerequisite: Mathematics 151 with a grade of C (2.0) or better.

Proof of completion of prerequisite required: Copy of transcript.

The foundations of Euclidean and hyperbolic geometries. Highly recommended for all prospective teachers of high school geometry.

MATH 520. Algebraic Structures (3)

Prerequisite: Mathematics 320 with a grade of C (2.0) or better or graduate standing. **Proof of completion of prerequisite required:** Copy of transcript.

Continuation of Mathematics 320. Group theory to include finite Abelian groups, group homomorphisms and isomorphisms, normal subgroups, quotient groups, and Sylow theorems. Selected advanced topics to include field extensions or integral domains. (Formerly numbered Mathematics 521B.)

MATH 522. Number Theory (3)

Prerequisite: Mathematics 245 with a grade of C (2.0) or better.

Proof of completion of prerequisite required: Copy of transcript.

Theory of numbers to include congruences, Diophantine equations, and a study of prime numbers; cryptography.

MATH 523. Mathematical Logic (3)

Prerequisite: Mathematics 245 with a grade of C (2.0) or better.

Proof of completion of prerequisite required: Copy of transcript.

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)

Prerequisites: Mathematics 245 and either 254 or 342A with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

Vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors, normal forms for complex matrices, positive definite matrices and congruence.

MATH 525. Algebraic Coding Theory (3)

Prerequisite: Mathematics 330 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

Linear codes, perfect and related codes, cyclic linear codes, BCH codes, burst error-correcting codes.

MATH 530. Advanced Calculus II (3)

Prerequisite: Mathematics 330 with a grade of C (2.0) or better or graduate standing. **Proof of completion of prerequisite required:** Copy of transcript.

Formal definitions and analysis within the framework of single variable functions. Advanced concepts in analysis. (Formerly numbered Mathematics 534B.)

MATH 531. Partial Differential Equations (3)

Prerequisites: Mathematics 252 and 337 with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

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)

Prerequisite: Mathematics 252 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

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 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

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 537. Ordinary Differential Equations (3)

Prerequisite: Mathematics 337 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

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)

Prerequisites: Mathematics 151 and either 254 or 342B with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

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, stable/unstable manifolds, bifurcations. Applications in biology, chemistry, physics, engineering, and other sciences.

MATH 541. Introduction to Numerical Analysis and Computing (3)

Prerequisites: Mathematics 340; and either graduate standing, Mathematics 254, 342A, or Aerospace Engineering 280 with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

Solution of equations of one variable, polynomial interpolation and approximation, numerical differentiation and quadrature, linear least squares approximation, the fast Fourier transformation.

MATH 542. Introduction to Computational Ordinary of Differential Equations (3)

Prerequisites: Mathematics 340; and either Mathematics 337, 342A, or Aerospace Engineering 280 with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

Initial and boundary value problems for ordinary differential equations. Runge-Kutta, linear multi-step, predictor-corrector, adaptive, hybrid, shooting, and general linear methods. System, stiffness, and non-linear problems. Iterative methods.

MATH 543. Numerical Matrix Analysis (3)

Prerequisites: Mathematics 340; and either Mathematics 254, 342A, or Aerospace Engineering 280 with a grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript.

Singular value decomposition. Projections, QR-factorization, orthogonalization, conditioning and stability, Gaussian Elimination, LU-Factorization, pivoting strategies, Cholesky Factorization. Iterative methods for diagonalization and eigensystem computation. Tri-diagonal, Hessenberg, and Householder matrices. The QR algorithm.

MATH 562. Mathematical Methods of Operations Research (3)

Prerequisites: Mathematics 252 and 254 with a grade of C (2.0) or better in each course. **Proof of completion of prerequisites required:** Copy of transcript.

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)

Prerequisite: Mathematics 245 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

Permutations, combinations, generating functions, recurrence relations, inclusion-exclusion counting. Polya's theory of counting, other topics and applications.

MATH 596. Advanced Topics in Mathematics (1-4)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES**MATH 620. Groups, Rings, and Fields (3)**

Prerequisites: Mathematics 320 and either 520 or 522 or 525 with a grade of C (2.0) or better in each course.

Group theory to include finite Abelian groups, isomorphism theorems, matrix groups, and permutation groups. Ring theory to include ideals, principal ideal domains, and unique factorization. Field theory to include field extensions and finite fields.

MATH 621. Topics in Advanced Algebra (3)

Prerequisite: Mathematics 620 with a grade of C (2.0) or better.

Topics in advanced algebra. Typical courses to include algebra-geometry dictionary, commutative algebra, groups, fields, and Galois theory. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

MATH 623. Linear Algebra and Matrix Theory (3)

Prerequisite: Mathematics 524 with a grade of C (2.0) or better.

Characteristic and minimal polynomials, Cayley-Hamilton theorem, canonical forms, hermitian matrices, Sylvester's law, norms, singular values, stability, non-negative matrices.

Mathematics

MATH 625. Algebraic Coding Theory (3)

Prerequisites: Mathematics 525 and Mathematics 520 or 522 with a grade of C (2.0) or better in each course.

Algebraic theory of error correction codes and decoding algorithms used in modern communications systems. Reed-Solomon codes and algebraic decoding algorithms. Code duality, MacWilliams's identities and the linear programming bound. Probabilistic decoding of convolutional codes, low-density parity-check codes and turbo codes.

MATH 626. Cryptography (3)

Prerequisites: Mathematics 320 and 522 with a grade of C (2.0) or better in each course.

Design of secure cryptosystems with applications. Classical and public key cryptosystems. Primality testing, factoring, discrete log problem, and knapsack problem.

MATH 627A. Modern Algebra I (3)

Prerequisite: Mathematics 520 with a grade of C (2.0) or better.

Group theory, including isomorphism theorems, permutation groups, and simplicity of A_n , finite abelian groups, and Sylow theorems. Rings, ideals, principal ideal domains, and unique factorization.

MATH 627B. Modern Algebra II (3)

Prerequisite: Mathematics 627A with a grade of C (2.0) or better.

Modules and the Wedderburn-Artin theorem, field extensions, splitting fields, Galois theory, finite fields, the fundamental theorem of algebra.

MATH 630. Applied Real Analysis (3)

Prerequisite: Mathematics 330 with a grade of B- (2.7) or better.

Recommended: Mathematics 530 with a grade of B- (2.7) or better.

Lebesgue measure and integration, metric spaces, Banach spaces, Hilbert spaces. (Formerly numbered Mathematics 630A.)

MATH 630B. Functions of a Real Variable (3-3)

Prerequisites: Mathematics 524 and 530 with a grade of C (2.0) or better in each course. Mathematics 630 is prerequisite to Mathematics 630B.

Lebesgue measure and integration, metric spaces, Banach spaces, Hilbert spaces, spectral theory.

MATH 631A-631B. Functions of a Complex Variable (3-3)

Prerequisites: Mathematics 530 and 532. Mathematics 631A is prerequisite to 631B.

Theory of analytic functions. Elementary functions and power series, Cauchy's theorem and its consequences. Entire functions, conformal mappings, Riemann mapping theorem. Harmonic functions.

MATH 633. Advanced Topics in Analysis (3)

Prerequisite: Mathematics 630. Recommended: Mathematics 668.

Specific topics in analysis to include Lebesgue and Sobolev spaces and spectral theory. Investigation of new theoretical tools and their applications.

MATH 635. Pattern Formation (3)

Prerequisites: Mathematics 337 or 531 and Mathematics 254 or 342A, 342B.

Linear stability, marginal stability curves, classification. One dimensional patterns, bifurcations. Two dimensional patterns, square and hexagonal patterns, spirals, defects. Diffusion driven instability, Turing patterns. Spatio-temporal chaos. Applications in biology, chemistry, and physics.

MATH 636. Mathematical Modeling (3)

Prerequisites: Mathematics 254 and 337 or Mathematics 342A and 342B or Aerospace Engineering 280 with a grade of C (2.0) or better in each course.

Advanced models from the physical, natural, and social sciences. Emphasis on classes of models and corresponding mathematical structures.

MATH 638. Continuous Dynamical Systems and Chaos (3)

Prerequisites: Mathematics 337 or 537 and Mathematics 254 or 342A, 342B with a grade of C (2.0) or better in each course.

Nonlinear systems of differential equations, potential fields, periodic solutions, Lyapunov functions. Chaos in differential equations, Lyapunov exponents, chaotic attractors, Poincaré maps. Lorenz and Rossler attractors, forced oscillators, Chua's circuit, stable manifolds. Bifurcations. Applications in science and engineering.

MATH 639. Nonlinear Waves (3)

Prerequisite: Mathematics 531 or 537 with a grade of C (2.0) or better.

Linear waves, dissipation, dispersion. Conservation laws. Water waves. KdV equation, solitary waves, cnoidal waves. Scattering and inverse scattering. Perturbation theory. Nonlinear Schrödinger equation, dark and bright solitons, vortex solutions. Variational techniques, modulational instability, stability.

MATH 667. Mathematical Aspects of Systems Theory (3)

Prerequisites: Mathematics 524 and 537 with a grade of C (2.0) or better in each course.

Linear and nonlinear systems, nonlinear differential equations, equilibrium equations. Linearization, state transition matrix, stability theory, feedback control systems.

MATH 668. Applied Fourier Analysis (3)

Prerequisites: Mathematics 330, 524; 530 or 532 with a grade of C (2.0) or better in each course.

Discrete and continuous Fourier transform methods with applications to statistics and communication systems.

MATH 693A. Advanced Numerical Methods: Computational Optimization (3)

Prerequisites: Mathematics 524 and 541 with a grade of C (2.0) or better in each course.

Numerical optimization: Newton, Truncated-Newton, and Quasi-Newton methods for unconstrained optimization; with applications to nonlinear least squares, orthogonal distance regression, and nonlinear equations.

MATH 693B. Advanced Numerical Methods: Computational Partial Differential Equations (3)

Prerequisites: Mathematics 531 and 541 with a grade of C (2.0) or better in each course.

Methods for hyperbolic, parabolic, and elliptic partial differential equations: consistency, stability, convergence.

MATH 696. Selected Topics in Mathematical Sciences (3)

Prerequisite: Graduate standing.

Intensive study in specific areas of mathematical sciences. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MATH 720. Seminar (1-3)

Prerequisite: Consent of instructor.

An intensive study in advanced mathematics. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

MATH 790. Practicum in Teaching of Mathematics (1) Cr/NC

Prerequisite: Award of graduate teaching associateship in mathematics.

Supervision in teaching mathematics. Lecture writing, style of lecture presentation and alternatives, test and syllabus construction, and grading system. Not applicable to an advanced degree. Required for first semester GTA's.

MATH 797. Research (1-3) Cr/NC/RP

Prerequisite: Six units of graduate level mathematics.

Research in one of the fields of mathematics. Maximum credit six units applicable to a master's degree.

MATH 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

MATH 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

MATH 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

MATH 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree

Registration in 799C limited to two semesters.

For additional courses useful to mathematicians, see the sections under:

Computer Science

Mathematics and Science Education

Statistics

Mathematics and Science Education

IN THE COLLEGE OF SCIENCES AND IN THE COLLEGE OF EDUCATION

For further information regarding programs, consult the following:

Ph.D. Program

CRMSE

6475 Alvarado Rd., #236

619-594-4696

e-mail: mathsciphd@sdsu.edu

<http://www.sci.sdsu.edu/crmse/msed/>

M.A. Program

Mathematics and Statistics

619-594-6191

Teacher Education

619-594-6131

Mathematics and Science Education Faculty

Joanne Lobato, Ph.D., Professor of Mathematics,
Coordinator for Ph.D. Program

Nadine S. Bezuk, Ph.D., Professor of Teacher Education and
Associate Dean of the College of Education

Leland L. Beck, Ph.D., Professor of Computer Science, Emeritus

Alexander W. Chizhik, Ph.D., Professor of Teacher Education

Lisa L. Clement Lamb, Ph.D., Professor of Teacher Education

Fred M. Goldberg, Ph.D., Professor of Physics, Emeritus

Richard A. Levine, Ph.D., Professor of Statistics

Stanley R. Maloy, Ph.D., Professor of Biology and Associate Vice
President for Research and Innovation of Graduate and Research
Affairs

Walter C. Oechel, Ph.D., Albert W. Johnson Distinguished
Professor of Biology and Interim Dean of the College of Sciences

Michael E. O'Sullivan, Ph.D., Professor of Mathematics

Randolph A. Philipp, Ph.D., Professor of Teacher Education

Chris L. Rasmussen, Ph.D., Professor of Mathematics

Matthew E. Anderson, Ph.D., Associate Professor of Physics

[Senate Distinguished Professor]

Janet S. Bowers, Ph.D., Associate Professor of Mathematics

Susan D. Nickerson, Ph.D., Associate Professor of Mathematics
(M.A.T.S. Graduate Adviser)

Donna L. Ross, Ph.D., Associate Professor of Teacher Education

Meredith E. Vaughn, Ph.D., Associate Professor of Teacher
Education (Ph.D. Graduate Adviser)

Daniel Reinholz, Ph.D., Assistant Professor of Mathematics

Melissa M. Soto, Ph.D., Assistant Professor of Teacher Education

Dustin Thoman, Ph.D., Assistant Professor of Psychology

William C. Zahner, Ph.D., Assistant Professor of Mathematics

Committee for Mathematics Education

Nadine S. Bezuk, Ph.D., Professor of Teacher Education and
Associate Dean of the College of Education

Lisa L. Clement Lamb, Ph.D., Professor of Teacher Education

Joanne Lobato, Ph.D., Professor of Mathematics

Randolph A. Philipp, Ph.D., Professor of Teacher Education

Chris L. Rasmussen, Ph.D., Professor of Mathematics

Janet S. Bowers, Ph.D., Associate Professor of Mathematics

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Daniel Reinholz, Ph.D., Assistant Professor of Mathematics

Melissa M. Soto, Ph.D., Assistant Professor of Teacher Education

William C. Zahner, Ph.D., Assistant Professor of Mathematics

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials to SDSU Graduate Admissions.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language or IELTS score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Mathematics and Science Education

The following admissions materials must be submitted electronically. For information regarding the admissions process, visit the program website at <http://www.sci.sdsu.edu/crmse/msed/>. The Cal State Apply application must be completed prior to the mathematics and science education admissions materials.

1. Mathematics and science education application;
2. Three letters of recommendation attesting to capability to do graduate work in mathematics and science education;
3. Personal statement;
4. One copy of unofficial transcript;
5. Curriculum vitae or resume.

Section I. Master's Degree Programs

General Information

The Department of Mathematics and Statistics offers two specializations in its program of graduate study leading to a Master of Arts degree for teaching service. The specialization for community college teaching offers candidates a program designed to provide them with the mathematical breadth necessary to teach a wide variety of lower-division collegiate mathematics courses, while also providing them with a better understanding of the issues involved in teaching and learning mathematics. The specialization for secondary teaching offers coursework designed to strengthen the mathematical background of secondary teachers, to provide teachers with a deeper understanding of learning and teaching mathematics in grades 7-12, and to allow teachers the opportunity to analyze curriculum and evaluation efforts in a manner that can lead them to make reasoned judgments about curricular, testing, and instructional issues in grades 7-12 mathematics.

Courses described in this section may also be of interest to students seeking the Master of Arts degree in education with concentrations in elementary curriculum and instruction or secondary curriculum and instruction, offered by the School of Teacher Education.

Associateships

Graduate teaching associateships in mathematical sciences are available to qualified students. Support for qualified candidates may also be available through the School of Teacher Education, through the Center for Research in Mathematics and Science Education or through employment on faculty research grants. Applications are available from the appropriate campus offices.

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, students seeking the Master of Arts degree for teaching service must have passed a qualifying examination in mathematics education.

Specific Requirements for the Master of Arts Degree for Teaching Service in Mathematics

(Major Code: 17011) (SIMS Code: 776305)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the students must complete a graduate program of at least 30 units, 24 of which must be from the Department of Mathematics and Statistics. At least 15 of the 24 must be 600- and 700-numbered courses. A student's program must be prepared in conference with and approved by the graduate adviser.

The two specializations leading to the Master of Arts for teaching service require completion of a specific pattern of graduate units described below.

Specialization in Mathematics for Community College Teaching (SIMS Code: 776320). This specialization is designed to satisfy the requirements for teaching service at the community college level. Students must have completed a bachelor's degree in mathematics (or equivalent) before entering the program and completed six units selected from Mathematics 320, 330, or 524. Mathematics 524 can be taken prior to entering the program or as part of the 30-unit degree requirement.

Plan A requires Mathematics 600, 601, 602, and Mathematics Education 603; six units selected from Mathematics 509, 720, Mathematics Education 604, 605, 606, 607; nine units of electives selected with the approval of the adviser; and Mathematics 799A, Thesis.

Plan B requires Mathematics 600, 601, 602, and Mathematics Education 603; nine units selected from Mathematics 509, 720, Mathematics Education 604, 605, 606, 607; and nine units of electives selected with the approval of the adviser. In addition, students must pass a comprehensive examination in mathematics education.

Specialization in Mathematics for Secondary Teaching (SIMS Code: 776351). This specialization is designed to strengthen the mathematical background of secondary teachers, while providing coursework to better understand the learning and teaching of mathematics in grades 7-12. Students should have the equivalent of a bachelor's degree in mathematics before entering the program.

Plan A requires Mathematics 524; Mathematics Education 603; three units selected from Mathematics 510, 600; three units selected from Mathematics 520 or 601; three units selected from Mathematics 530 or 602; six units selected from Mathematics 509, 720, Mathematics Education 604, 605, 606, 607; six units of electives selected with the approval of the adviser; and Mathematics 799A, Thesis.

Plan B requires Mathematics 524; Mathematics Education 603; three units selected from Mathematics 510, 600; three units selected from Mathematics 520 or 601; three units selected from Mathematics 530 or 602; nine units selected from Mathematics 509, 720, Mathematics Education 604, 605, 606, 607; and six units of electives selected with the approval of the adviser. In addition, students must pass a comprehensive examination in mathematics education.

Master of Arts Degree in Education

Concentration in Mathematics Education (K-8)

(Major Code: 17012) (SIMS Code: 331947)

The Master of Arts degree in education with a concentration in K-8 mathematics education is designed to provide teachers a deeper understanding of issues in learning and teaching mathematics in grades K-8, and increased knowledge of current trends, research, and assessment in mathematics education. Students can expect to acquire new perspectives and skills about mathematics teaching, specialized knowledge of children's mathematical understanding, and preparation for leadership among teachers in mathematics teaching.

- Prerequisites:** Applicant must have at least one year of teaching experience or consent of program coordinator, and must file an application for admission to both the university and the K-8 mathematics education program. Successful applicants must demonstrate personal, professional, and academic potential for success in this program. For specific admission criteria see the K-8 Mathematics Education Master of Arts program website at <http://coe.sdsu.edu/departments/MathEd/master.htm>.
- Core Program (12 units):**

MTHED 600	Teaching and Learning Mathematics in the Early Grades (Pre-K to 4).....	3
MTHED 601	Teaching and Learning Mathematics in the Middle Grades.....	3
MTHED 603	Seminar on Learning Theories in Mathematics Education.....	3
TE 511	Assessment in Mathematics Education.....	3
- Electives (9 units):** With the approval of the adviser, select three courses from the following:

DLE 553	Language Assessment and Evaluation in Multicultural Settings.....	3
DLE 601	Language Policies and Practices	3
LDT 540	Educational Technology	3
LDT 541	Educational Web Development.....	3
LDT 570	Advanced Teaching with Technologies.....	3
LDT 572	Technology for Course Delivery.....	3
MTHED 604	Seminar on Teaching Issues in Mathematics	3
MTHED 605	Algebra in the 7-14 Curriculum.....	3
MTHED 606	Selected topics in 7-14 Mathematics Curriculum	3
TE 790	Seminar in Teacher Education.....	3

Or three units of a 500- or 600-level course approved by the program coordinator.
- Research (9 units):**

ED 690	Methods of Inquiry	3
ED 795A	Seminar.....	3
ED 795B	Seminar.....	3

Section II. Doctoral Program

WEBSITE: <http://www.sci.sdsu.edu/crmse/msed>

General Information

San Diego State University and the University of California, San Diego, offer jointly a doctoral program in mathematics and science education. The program faculty at SDSU are members of the College of Sciences and the College of Education and are affiliated with the Center for Research in Mathematics and Science Education (CRMSE). They represent a number of different disciplines, including biology, mathematics, physics, psychology, statistics, and teacher education. The program faculty at UCSD, also an interdisciplinary group, are members of the Division of Physical Sciences (chemistry, mathematics, and physics) the Division of Biological Sciences, or the Division of Social Sciences (cognitive science, communication, education studies, psychology, and sociology). The program is administered under the College of Sciences at SDSU and under the Division of Physical Sciences at UCSD.

The research interests of the participating faculty members cover a wide range of issues in the learning and teaching of mathematics and the sciences. Graduates of the program will be qualified to take a variety of professional positions, including faculty appointments in universities, colleges, and community colleges; specialist positions in public school districts; and out-of-school employment in settings that require expertise in mathematics and science education.

Doctoral Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral program, being available for direction of research and as departmental members of joint doctoral committees.

San Diego State University:

Coordinator: Joanne Lobato

Graduate Adviser: Meredith E. Vaughn

Staff Adviser: Deb Escamilla

Doctoral Program Members: Biology: Maloy, Oechel; Computer Science: Beck; Mathematics: Bowers, Lobato, Nickerson, O'Sullivan, Rasmussen, Reinholz, Zahner; Physics: Anderson, Goldberg; Psychology: Thoman; Statistics: Levine; Teacher Education: Bezuk, Chizhik, Lamb, Philipp, Ross, Soto, Vaughn

University of California, San Diego:

Coordinators: Jeff Rabin and Gabriele Wienhausen

Graduate Adviser: Chris Halter

Staff Adviser: Sherry Seethaler

Doctoral Program Members: Alač, Barner, Brydges, Burgasser, Bussey, Daly, Datnow, Eggers, Halter, Heyman, Lo, Minnes, Núñez, Quarfoot, Rabin, Simon, Stevens, Weizman, Wienhausen

Admission to Doctoral Study

Applicants for admission to the doctoral program in mathematics and science education must meet the general requirements for admission to both universities with classified graduate standing as outlined in the respective current catalogs. Applicants must also meet the special requirements of this program. These include: (a) an acceptable baccalaureate degree in mathematics or science (or a related discipline); b) a master's degree, or its equivalent, in biology, chemistry, physics, or mathematics; (c) a GPA of at least 3.25 in the last 30 semester (or 45 quarter) units of upper division work and at least a 3.5 in the graduate work attempted; (d) good standing in the last institution attended; (e) suitable scores in quantitative, verbal, and analytic sections of the Graduate Record Examinations.

Students with a master's degree in mathematics education can also be considered for admission if they meet the following requirements: (a) a bachelor's degree in mathematics; (b) a master's degree in mathematics education that includes graduate level mathematics courses in analysis and algebra; and (c) coursework in geometry at the advanced undergraduate or graduate level. The GPA, GRE, and graduate standing requirements specified in the previous paragraph must also be met. Students entering the program with a master's degree in mathematics education are required to take additional mathematics courses as specified in "Specific Requirements for the Doctor of Philosophy Degree." Students with a master's degree in physics education, chemistry education, or biology education should contact the MSED program coordinators.

Students applying for admission to the doctoral program should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Mathematics and Science Education Ph.D. Program.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Mathematics and Science Education

For information regarding the admissions process, visit the program website at <http://www.sci.sdsu.edu/crmse/msed/>.

Specific Requirements for the Doctor of Philosophy Degree

(Major Code: 08997) (SIMS Code: 993501)

Residency Requirements. After formal admission to the doctoral program, the student must complete a 36-unit residency at the University of California, San Diego, of which a maximum of 12 units can be upper division undergraduate courses (100 level). Lower division undergraduate courses do not count toward residency. Students must also complete an 18-unit residency at San Diego State University. The residency requirements cannot be replaced by coursework taken elsewhere.

Language Requirement. There is no formal language requirement for the program.

Course Requirements. All students admitted into the doctoral program will fulfill the following requirements. Any alternative method of fulfilling these requirements must be approved by the graduate advisers.

- a. Four research apprenticeship experiences:
SDSU: MSE 801 and
SDSU: MSE 802 and UCSD: MSED 295, and
SDSU: MSE 820 or UCSD: MSED 298.
- b. Core courses in Mathematics or Science Education.
UCSD: MSED 296A, 296B, 296C and
SDSU: MTHED 603.
Science Education students must also take UCSD: MSED 290.
Mathematics Education students must select two of the following additional courses: SDSU: MTHED 600, 601, 604, 605, 606, 607.
- c. Three courses on quantitative and qualitative research methods.
SDSU: MSE 810 and one of the following sequences:
UCSD: EDS 287, 288 or
UCSD: PSYC 201A, 201B or
UCSD: MA 282A, 282B or
SDSU: PSY 670A, 670B.
- d. Two courses in cognitive science at UCSD selected from:
COGS 102A or 234; COGS 102B, 200, 260;
or one of COGS 101A, 101B, 101C.
- e. One teaching practicum.
SDSU: MSE 805, 806, or 807 or
UCSD: EDS 129A/139, or Discipline 500 or MSED 295.
- f. Two courses from different categories are selected with advisers according to the student's needs and background:
 1. Philosophy and History. UCSD: PHIL 145, 146, 147, 209A; HISC 106, 107, 108, 109, 160/260, 163/263, 164/264, or 165/265.
 2. Sociology. UCSD: SocG 270, SocB 117/EDS 117, or SocC 126/EDS 126.
 3. Mathematics and Science: Graduate level courses in biology, chemistry, mathematics, or physics.

4. Teaching Experience: An option for students who have not yet had teaching experiences at both the K-12 and collegiate levels is to take a second teaching practicum.
5. Other. Other types of courses (at the graduate or upper division undergraduate level) can be approved by the advisers if they contribute to a coherent program.
- g. Three doctoral research courses:
SDSU: MSE 830, 899 and
UCSD: MSE 299.

Beyond these requirements, no specified number of courses is required for the doctoral degree. It is expected, however, that all the doctoral students will supplement the requirements with electives that contribute to individual career objectives.

Additional Requirements for Students Entering with a Master's Degree in Mathematics Education. Students who are admitted into the doctoral program with a master's degree in mathematics education will increase the breadth and depth of their mathematical knowledge by fulfilling the requirements specified for Option A or Option B:

Option A.

UCSD: MATH 240A, 240B, 240C and
Pass the UCSD comprehensive examination on analysis at the master's level and
One graduate algebra course: UCSD: MATH 200A or
SDSU: MATH 627A or 623. MATH 623 can only be selected if the student has already taken a graduate level abstract algebra course.

Option B.

Select two of SDSU: MATH 627A, 627B, 623, and
Pass the SDSU comprehensive examination on algebra at the master's level and
UCSD: MATH 240A

Whether the student selects Option A or Option B, the year-long sequence in algebra or analysis must be taken in Year 1 of the doctoral program. All of the requirements for Option A or Option B must be completed prior to the second year examination; however, students are strongly encouraged to fulfill all of the requirements in Year 1. A grade of B or better must be earned in each course.

Examinations. Students in the doctoral program will be evaluated at the following levels:

1. **First Year Evaluation.** The student's ability to master graduate level course material may be assessed after completion of no more than 24 semester units of coursework. This evaluation may take place not later than the third semester of the student's enrollment in the program. The evaluation will be based on the student's performance in coursework and on indicated research competence, and it will be undertaken by the student's advisory committee together with instructors from the student's first year courses.
2. **Comprehensive Examinations.** At the end of the second year, the student will take a written comprehensive examination in general cognition and an oral examination on issues of learning pertinent to the student's area of specialization.
3. **Oral Examination.** During the third year in the program, the student will make an oral presentation to the dissertation committee to accompany a written proposal for the doctoral thesis. The student will be questioned on both the topic of the investigation and on the proposed research methodology. Upon successful completion of this presentation, the student will be recommended for advancement to candidacy for the doctoral degree.
4. **Dissertation Defense.** After completion of the dissertation, the candidate will present a public defense of the doctoral dissertation. A copy of the dissertation must be made available to the doctoral faculty at both institutions four weeks prior to the defense. Copies of the abstract of the dissertation, along with the announcement of the defense, must be publicly available four weeks before the defense. The student's dissertation committee will make a recommendation to the graduate deans to pass or fail the student.

Faculty Advisers. Upon admission to the doctoral program, the program directors will assign each student a faculty adviser at both universities. The faculty advisers will serve as advisers until the student's dissertation committee is appointed.

Dissertation Committee. The dissertation committee will be composed of five members with at least two faculty members from each campus. The student will select members of the dissertation committee in consultation with program faculty and the graduate advisers.

Dissertation. Following the successful completion of all prescribed coursework and qualifying examinations, the major remaining requirement for the Ph.D. degree will be the satisfactory completion of a dissertation consisting of original research carried out under the guidance of the major professor. Approval of the completed dissertation attests that an organized investigation that expands the frontiers of knowledge and understanding in mathematics and science education has been carried out.

Award of the Degree. The Doctor of Philosophy degree in Mathematics and Science Education will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both cooperating institutions.

Financial Support

San Diego State University and the University of California, San Diego have a number of research and teaching associateships available to support students admitted to the Joint Doctoral Program. All students applying to the program will be considered for financial support.

Courses Acceptable for Master's and Doctoral Degree Programs in Mathematics and Science Education (MTHED) (MSE)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Mathematics and Science Education (MTHED) GRADUATE COURSES

MTHED 600. Teaching and Learning Mathematics in the Early Grades (Pre-K to 4) (3)

Prerequisites: Mathematics Education 603 or 604 and K-12 teaching experience.

Research in teaching and learning mathematics in preschool through grade four. Innovative early childhood mathematics curricula, promising instructional practices. Assessment techniques to guide instruction.

MTHED 601. Teaching and Learning Mathematics in the Middle Grades (3)

Prerequisites: Mathematics Education 604 and K-12 teaching experience.

Research on teaching and learning mathematics in grades five through eight. Innovative middle grades mathematics curricula, promising instructional practices. Assessment techniques to guide instructions.

MTHED 603. Seminar on Learning Theories in Mathematics Education (3)

Prerequisite: Consent of instructor or graduate adviser.
Application of several major learning theories (e.g. behaviorism, structuralism, radical constructivism, information processing, and sociocultural perspectives) to research on the learning and teaching of mathematics.

MTHED 604. Seminar on Teaching Issues in Mathematics (3)

Prerequisite: Consent of instructor or graduate adviser.
Mathematics education research pertaining to teaching of mathematics. Readings chosen to bridge theory and practice divide.

MTHED 605. Algebra in the 7-14 Curriculum (3)

Prerequisite: Consent of instructor or graduate adviser.

Curricular change in algebra, with attention to experimental curricula, to research on learning of algebra, and to influences of technology. Implications for instruction.

MTHED 606. Selected Topics in 7-14 Mathematics Curriculum (3)

Prerequisite: Consent of instructor or graduate adviser.

Curricular change in school mathematics, to include geometry, probability, and statistics, with attention to contemporary curricula, to research on learning and teaching in those areas, and to the influences of technology. Implications for instruction.

MTHED 607. Seminar on Research in Undergraduate Mathematics Education (3)

Prerequisite: Consent of instructor or graduate adviser.

Research in undergraduate mathematics education and its implications for teaching. Topics include research on student thinking on concepts from calculus through abstract algebra and the teaching and learning of proof.

Mathematics and Science Education (MSE) DOCTORAL COURSES

MSE 801. Faculty Research (1) Cr/NC

Prerequisite: Admission to doctoral program in Mathematics and Science Education.

Issues of learning with reference to how they are addressed by doctoral faculty. Students will interview and write a one-page statement of research interests for each of eight doctoral faculty members.

MSE 802. Orientation Practicum (1-3) Cr/NC

Prerequisite: Admission to doctoral program in Mathematics and Science Education.

Experience with research programs will introduce students to a variety of research questions and approaches. One research program per unit; minimum three units required in program. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units applicable to an advanced degree.

MSE 805. Supervised Teaching of Teacher Preparation Courses (3) Cr/NC/RP

Prerequisite: Admission to doctoral program in Mathematics and Science Education.

Students will plan and teach, under supervision, a course that prepares prospective teachers to teach mathematics or science at either the elementary or secondary level.

MSE 806. Supervised School Practicum (3) Cr/NC/RP

Prerequisite: Admission to doctoral program in Mathematics and Science Education.

School-based project focusing on inservice of teachers or on curriculum development, or work with a school district administrator or mathematics or science.

MSE 807. Specially Designed Practicum (3) Cr/NC/RP

Prerequisite: Admission to doctoral program in Mathematics and Science Education.

Practical experience to assist students in gaining experience in career they have selected.

MSE 810. Seminar in Research Design (3)

Prerequisites: Admission to doctoral program in Mathematics and Science Education; Psychology 670A, and consent of instructor.

Issues such as analysis of protocols, problems of measurement in evaluation of learning, development, and assessment of cognitive models in learning in mathematics and science.

MSE 820. Research Project (3-6) Cr/NC/RP

Prerequisite: Admission to doctoral program in Mathematics and Science Education.

Participation in an ongoing research project and development of a related study.

MSE 830. Research Seminar (3)

Prerequisite: Successful completion of qualifying examination.

Students and faculty present ongoing research for discussion and critique.

MSE 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Mathematics and Science Education 820.

Independent investigation in general field of the dissertation.

MSE 898. Doctoral Special Study (1-8) Cr/NC/RP

Prerequisites: An officially constituted doctoral committee and advancement to candidacy.

Individual study in the field of specialization.

MSE 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

For additional courses applicable to the Master of Arts degree for Teaching Service see:

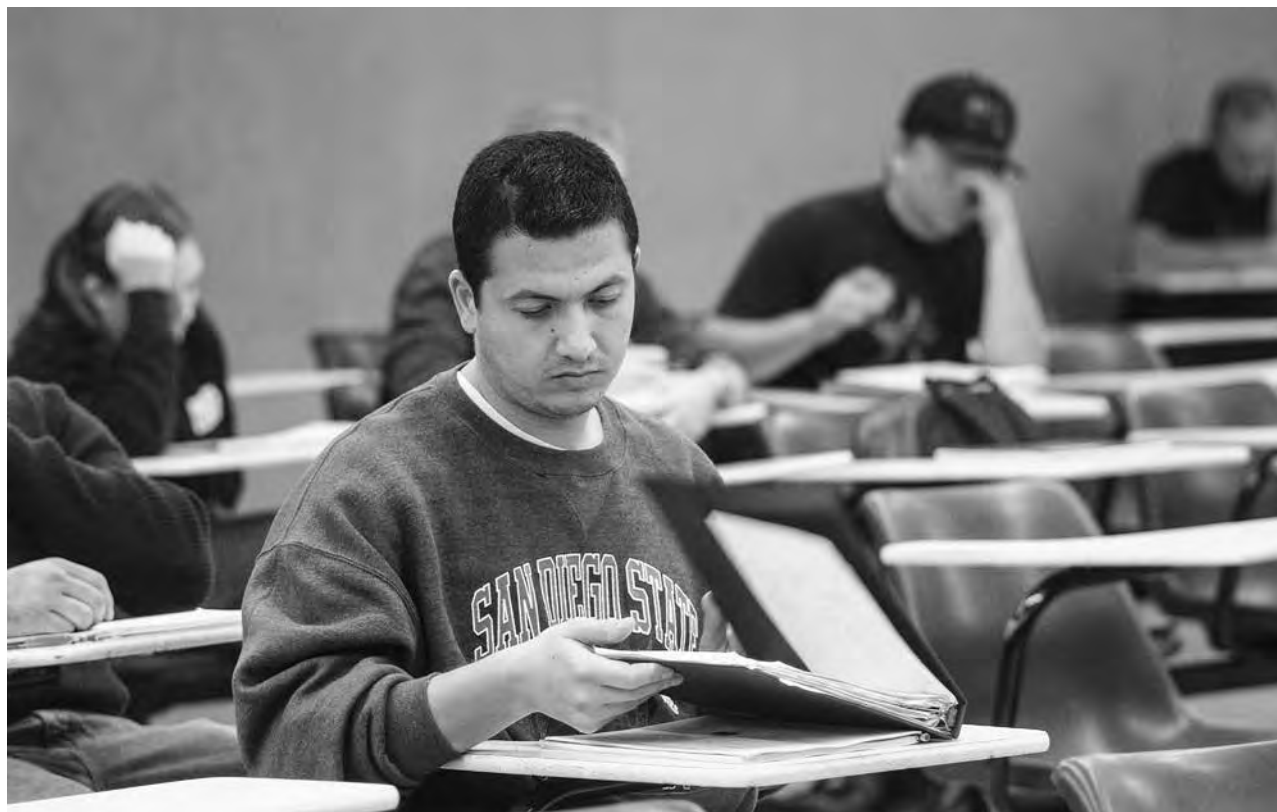
Mathematics 600. Geometrical Systems

Mathematics 601. Topics in Algebra

Mathematics 602. Topics in Analysis

For additional courses related to mathematics education see:

Teacher Education 511. Assessment in Mathematics Education



Courses for Mathematics Education (MATH)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

MATH 501A. Reasoning: Place Value and Arithmetic Operations (1)

Prerequisites: Teaching credential and consent of instructor.

Place value and its role in development and understanding of arithmetic operations, to include numeration systems, student methods, standard algorithms, and mental computation.

MATH 501B. Reasoning: Rational Numbers and Real Number Systems (1)

Prerequisites: Teaching credential and consent of instructor.

Rational numbers and structure of real number system, to include meanings and models for fractions with attention to operations on rational numbers.

MATH 504A. Reasoning: Quantities and Mathematical Relationships (1)

Prerequisites: Teaching credential and consent of instructor.

Reasoning about measurable characteristics in problem context, and relationships among these measurements. Additive, multiplicative reasoning, and proportional reasoning in middle grades.

GRADUATE COURSES

MATH 600. Chaos and Fractals (3)

Prerequisites: Mathematics 320 and 510.

Non-linear dynamics to include Cantor sets, fixed and periodic points, fractal dimensions, fractals, iterative processes, orbit diagrams, orbits, period doubling, and self-similarity.

MATH 601. Topics in Algebra (3)

Prerequisites: Mathematics 320 and 330.

Unique factorization domains, rings and ideals, groups, algebraic field extensions. A course designed for secondary school teachers.

MATH 602. Topics in Analysis (3)

Prerequisites: Mathematics 320 and 330.

Topics in analysis, including the real number system, convergence, continuity, differentiation, the Riemann-Stieltjes integral, complex analysis, designed to give the secondary teacher a broad understanding of the fundamental concepts.

Mechanical Engineering

Refer to "Engineering" in this section of the bulletin.

Molecular Biology

Refer to "Biology" in this section of the bulletin.

Music and 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

Music

Charles J. Friedrichs, Ed.D., Associate Professor of Music,
Director of School

Donna M. Conaty, M.M., Professor of Music and Associate Dean of
the College of Professional Studies and Fine Arts

Brenton P. Dutton, M.M., Professor of Music, Emeritus

Karen J. Follingstad, D.M.A., Professor of Music

Marian Liebowitz, D.M.A., Professor of Music, Emeritus

Todd H. Rewoldt, D.M.A., Professor of Music

Eric S. Smigel, Ph.D., Professor of Music

Joseph M. Waters, Ph.D., Professor of Music

Bill R. Yeager, M.M., Professor of Music

Kevin M. Delgado, Ph.D., Associate Professor of Music
(Graduate Adviser)

Richard O. Thompson, M.M., Associate Professor of Music

Patrick M. Walders, D.M.A., Associate Professor of Music

Andrew I. Aziz, Ph.D., Assistant Professor of Music

Shannon M. Kitelinger, M.M., Assistant Professor of Music

Michael D. Gerdes, M.M., Lecturer in Music

Matthew D. Nielsen, D.M.A., Lecturer in Music

Applied Music Instruction

Bassoon: Martchev, V.

Cello: Greenbaum, Zhao

Chamber Music: Hausmann Quartet

Clarinet: Renk

Classical Guitar: Bassett, Benedetti, Wetzel

Composition: Dutton, Waters

Double Bass: Kurtz-Harris, Magnusson

Euphonium: Starr

Flute: Martchev, P.

Harp: Mashkovtseva

Horn: McCoy

Jazz Guitar: Boss

Jazz Studies: Soukup, Thompson, Yeager

Non-Western Instruments: Specialists from specific
cultures as available each semester

Oboe: Conaty, Skuster

Percussion: Cohen, Weller, Whitman

Piano: Follingstad, James

Saxophone: Rewoldt, Rekevics

Trombone: Starr

Trumpet: Cannon, Wilds

Tuba: Dutton

Viola: Chen, Maril

Violin: Allen, Tsai

Voice: Ayres, Bolzenthall, Nikkel

Dance

Leslie A. Seitters, M.F.A., Professor of Dance

Joseph W. Alter, M.F.A., Associate Professor of Dance

Jessica Humphrey, M.F.A., Assistant Professor of Dance

Chuyun Oh, Ph.D., Assistant Professor of Dance

Scholarships

Information on music scholarships may be obtained by writing to the chair, Music Scholarship Committee, School of Music and Dance, San Diego State University.

General Information

The School of Music and Dance offers graduate study leading to the Master of Arts degree in music and the Master of Music degree. The school also offers advanced coursework in dance that may be used toward fulfilling advanced degree requirements in Interdisciplinary Studies and in other departments with the approval of the student's graduate adviser.

With approval of the school, students electing to pursue the Master of Arts degree may specialize in one of the following fields: ethno- musicology and musicology. Piano pedagogy and theory are currently not accepting new graduate students. Master of Music students may specialize in composition, conducting, jazz, or performance.

Graduate students are prepared for careers that encompass scholarly research, teaching, performing, or creating new works.

Composition: Individual composition studies integrated with an awareness of global music practices.

Conducting: Literature and score analysis, hand techniques, rehearsal techniques, general preparation and performance in both the choral and instrumental areas.

Ethnomusicology: Study of global music with emphasis on cultural context, representation, ethnography, fieldwork, and performance. (*Currently not accepting new graduate students.*)

Jazz Studies: Education, research, performance, and composition in all styles of jazz.

Musicology: With the approval of the faculty, students may select a topic in medieval, renaissance, baroque, classical, romantic, twentieth century music, or American music. (*Currently not accepting new graduate students.*)

Performance: Performance studies are offered on all instruments and voice.

Piano Pedagogy: Preparation of the teacher of the child, adolescent, or adult students. (*Currently not accepting new graduate students*)

Theory: Comprehension of and facility with historical analytic techniques. (*Currently not accepting new graduate students*)

The 78,000 square-foot music building, completed in 1970, includes a 300-seat recital hall, rehearsal rooms for instrumental and choral organizations, an electronic music studio, two class-piano laboratories, 71 individual practice rooms, and approximately 160 pianos and 800 other musical instruments. The university library contains an extensive collection of over 75,000 music books and scores.

The School of Music and Dance has a 24-station student computer laboratory that provides facilities for computer assisted instruction in music theory and ear training, software programs for graphics, music composition, and notation.

The electronic music composition studio includes the latest electronic music equipment available.

The School of Music and Dance houses numerous ethnic instruments including Balinese and Javanese Gamelans and numerous other musical instruments of the world.

Statement on Computers

Students must become competent in the operation of personal computers to include word processing software, presentation software, web-based applications, and music notation software. Students, especially those planning to pursue the composition or electro-acoustic composition track, are encouraged to own a Macintosh laptop computer capable of running sophisticated music notation/composition software. For additional information regarding suggested platform and software, contact the School of Music and Dance.

Admission to Graduate Study in Music

Applicants must have completed a bachelor's degree with a major in music including preparation in performance, theory, music history, and literature, or hold a bachelor's degree from an accredited institution and present sufficient evidence of study and experience in music to demonstrate the equivalency of a bachelor's degree with a major in music.

All domestic students must demonstrate a minimum 2.85 GPA. All foreign students must demonstrate a minimum 3.0 GPA and in cases where the primary instruction was in a language other than English, a minimum English language score of 550. Foreign applicants taking the computer-based English language test must achieve a minimum score of 213 or 80 or higher using the Internet version.

After taking placement examinations in Western music theory, aural skills, and performance (where applicable), applicants will be admitted to the program with conditional graduate standing. Normally, one semester will be allowed to remove deficiencies indicated by these placement examinations.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Music and Dance.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language or the computer-based English language score for foreign students, if instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Music and Dance

The following admissions materials must be submitted electronically:

1. Two letters of reference;
2. One-page statement of personal aims and goals.
3. M.A. applicants: Refer to special requirements for Admission to Master of Arts Degree in Music in the next section.

Consult the School of Music and Dance website at <http://musicdance.sdsu.edu> for further information concerning admission. If necessary, materials may be sent directly to:

Director of Graduate Studies

School of Music and Dance
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7902

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin, and must have removed any deficiencies identified in the qualifying (placement) examinations by the end of the first semester.

Admission to Master of Arts Degree in Music

In addition to the general admission requirements, special admission requirements for the M.A. in ethnomusicology, if student has an undergraduate music degree, include: (a) submit a research paper; (b) prepare an audition on an instrument or voice in western or non-western music; (c) complete an interview; and (d) complete the qualifying (placement) examination in music history. If a potential graduate student in ethnomusicology has an undergraduate degree in anthropology or related humanistic discipline, the student must complete the equivalent of Music 205A and 205B, in addition to the requirements listed above.

Special admission requirements for the M.A. in musicology include: (a) the one-page statement of personal goals must describe how the student has been involved in music, why the student is interested in pursuing a graduate degree in musicology, and what research topics interest the student; (b) the two letters of reference should be from individuals who are in a position to comment on the student's potential to succeed in graduate work; (c) a 10 to 12-page paper on any topic of music history that reflects exceptional skills in critical thinking, to include references to appropriate literature, and demonstrates competence in spelling, grammar, organization, and citation format; and (d) interview.

Specific Requirements for the Master of Arts Degree

(Major Code: 10051) (SIMS Code: 665302)

Admission currently suspended for the Master of Arts Degree in Music.

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a 30-unit graduate program with at least 18 units in 600- and 700-numbered courses and the following core: Music 612 or 613; 652, or 654, and 690.

Students may choose either Plan A or Plan B. Students in Plan A are required to enroll in Music 799A, Thesis or Project, and to pass a final oral comprehensive examination on the thesis. Students in Plan B are required to enroll in Music 766, Graduate Lecture Recital. A written document is required of all students electing Plan B and students are required to pass a final oral comprehensive examination on the document. Musicology students are also required to complete a written comprehensive examination.

Master of Arts candidates in ethnomusicology and musicology must have a reading ability in an approved foreign language.

In addition to the requirements stated above, students must complete requirements in the selected specialization.

Ethnomusicology (SIMS Code: 665317)

Core: Music 612, 654, 690.

Program: Music 561 (6 units); 766 (Plan B) or 799A (Plan A).

Electives: Nine units selected from Music 570, 590, 651K, 652, or from approved 600- or 700-numbered courses with a minimum of three units from 600-700 numbered courses.

Musicology (SIMS Code: 665335)

Core: Music 613, 652, 690.

Program: Music 611, 612, 654; 766 (Plan B) or 799A (Plan A).

Electives: Six units selected from Music 500- and 600-level courses; of which three units must be selected from courses in history, language, literature, or arts other than music.

Music Theory (SIMS Code: 665341)

Core: Music 613, 652, 690.

Program: Six additional units selected from Music 613 and 614; nine units selected from Music 570-589 (1-4 units), 590, 654; and 799A.

Electives: Three units.

Piano Pedagogy (SIMS Code: 665348)

Core: Music 613, 652, 690.

Program: Music 541, 542, 554, 641, 651 (4 units); and 766 (Plan B) or 799A (Plan A).

Electives: Two units.

Refer to Graduate Music Student Handbook for further details.

Admission to Master of Music

In addition to meeting the admission requirements listed above, students who seek a performance specialization must pass an audition. Students seeking a composition specialization must submit a comprehensive creative portfolio of original work. Those seeking a conducting specialization must upload video content of their conducting expertise (rehearsal and performance) and complete an on-campus interview/audition. The Master of Music is available with the following specializations: composition, conducting, performance and jazz studies. Please consult the School of Music and Dance website at <http://musicdance.sdsu.edu> for further information concerning admission.

Specific Requirements for the Master of Music Degree

(Major Code: 10041) (SIMS Code: 665303)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a 30-unit graduate program, of which at least 18 must be in 600- and 700-numbered courses.

In order to be advanced to candidacy, students in vocal performance must satisfy either a music foreign language examination or satisfactorily complete one introductory college semester in French, German, and Italian.

A final oral comprehensive examination is required for all Master of Music candidates.

In addition to the requirements stated above, students must complete requirements in the specific program selected:

Composition (SIMS Code: 665362)

Core: Music 613, 652, 690.

Program: Music 507; three additional units from Music 613; three additional units from Music 613 or 614; 651 (9 units); 767.

Electives: Two units.

Conducting (SIMS Code: 665372)

Core: Music 613, 652, 690.

Program: Music 554, 570-589 (2 units), 651 (9 units); 767.

Electives: Five units.

Jazz Studies (SIMS Code: 665378)

Core: Music 614, 690.

Program: Music 651 (9 units), six units selected from Music 507, 566A-566B, 570-589 (1-3 units), 590; 767.

Electives: Three units.

Performance (SIMS Code: 665386)

Core: Music 613, 652, 690.

Program: Music 554, 570-589 (vocal majors must choose opera) (3 units), 651 (9 units); 767.

Electives: Four units.

Refer to Graduate Music Student Handbook for further details.

Artist Diploma Advanced Certificate

(SIMS Code: 665388)

The artist diploma prepares preprofessional performance students for professional careers by giving focused instruction in all areas of performance including technique, interpretation, repertoire, stage deportment and communication skills, and knowledge of the business of professional performance.

Applicants must show proof of completion of an undergraduate music degree from an accredited institution with a GPA of 3.0 in the last 60 semester (90 quarter) units attempted. Successful completion of an entrance audition and a review of undergraduate transcripts are required for entrance to this certificate program. Students whose undergraduate degree is not in music must complete qualifying placement examinations in Western music theory, Western history and literature, and aural skills, in addition to the entrance audition. Students must enroll in this program as matriculated students.

Students must complete the following 24-unit curriculum: Music 515, 516 (2 units), 570-589 (vocal majors must choose opera) (4 units), 651 (8 units); 767; 798 (1 unit); four units to be selected from Music 507, 518, 541, 542, 543, 554 (2-4 units), 566A-566B (for

jazz studies students only), 590, 641, 766, or 1-3 additional units of 798. Vocal students must demonstrate competency equal to a college-level course in French, German, and Italian.

The graduate adviser will be responsible for verifying a student's satisfactory completion of the academic requirements established for the program and for forwarding a completed copy of the verification form to Graduate and Research Affairs. Additionally, this adviser will direct the student into elective coursework that best suits the needs of the individual student.

All units in this certificate program are applicable to the various specializations in the M.A. in Music and the M.M. degree programs. However, not all courses are required in each specialization. Please see the requirements for each graduate specialization listed in the *Graduate Bulletin*.

Courses Acceptable for Master's Degree Programs in Music (MUSIC) (DANCE)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Music (MUSIC)

UPPER DIVISION COURSES

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 514. Volunteerism in the Arts (3)

Prerequisite: Upper division standing.

Study of volunteerism and its effects on non-profit organizations and the creation and implementation of volunteer projects in partnership with local non-profit performing arts organizations.

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 518. Community Performance Practicum (2)

One lecture and two hours of activity.

Practicum for performers, educators, administrators, researchers, or clinicians intending to develop and implement performing arts outreach programs in the community. (Formerly numbered Music 518A.)

MUSIC 530. Music Internship (1-3) Cr/NC

Two hours of activity per unit.

Prerequisite: Upper division or graduate standing in a music degree program.

Work with approved music professionals and agencies off-campus to include education, performance, production, and administration under the combined supervision of agency personnel and instructor. Maximum credit six units.

MUSIC 541. Performance Studies Pedagogy (3)

Two lectures and three hours of laboratory.

Prerequisite: Consent of instructor.

Teaching strategies for beginning and intermediate applied music. Survey and evaluation of teaching materials. Observation of individual or group lessons. See *Class Schedule* for specific content. Maximum credit three units.

MUSIC 542. Performance Studies Laboratory (2)

One lecture and three hours of laboratory.

Prerequisite: Music 541 with grade of C (2.0) or better.

Practical experience in teaching of individual or group lessons. See *Class Schedule* for specific content. Maximum credit two units.

MUSIC 543. Diction II (1)

Prerequisite: Music 243.

Principles of pronunciation and enunciation. Application to song and opera in Spanish, German, and French.

MUSIC 554. Music Literature (2)

Prerequisite: Music 205B with a grade of C (2.0) or better.

Study of music literature. Analysis of scores and recordings. May be repeated with new course content. See *Class Schedule* for specific content. Maximum credit six units applicable to a bachelor's and master's degree.

MUSIC 560. Music and Visual Media (3)

Two lectures and three hours of activity.

Prerequisite: Music 460.

Techniques and aesthetics of combining music/sounds and visual elements, including contemporary film scoring techniques, sound design for installations and performance art, video game scoring and experimental immersive 3-D virtual reality.

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 570. Advanced Chamber Music (1)

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)

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)

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)

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 583. Opera Workshop (1)

Two hours of activity.

Prerequisites: By audition and consent of instructor.

Opera scenes, specific roles, chorus, design, and technical support functions in opera. 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)

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)

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)

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 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MUSIC 598. Music Review: History, Analysis, and Aural Skills (3) Cr/NC

Prerequisite: Admission to the graduate program.

Review basic concepts of music theory, aural skills, and music history required for full candidacy in the graduate music program. Not applicable to the master's degree in music.

GRADUATE COURSES

MUSIC 611. Seminar in Musicology (3)

Systematic study of music based upon application of scientific investigation, philosophical speculation, modern historiography, and related academic disciplines in humanities and social sciences.

MUSIC 612. Seminar in Ethnomusicology Fieldwork Theory and Method (3)

Prerequisite: Credit or concurrent registration in Music 690.

Theory and method of ethnomusicology fieldwork research; ethnographic research, participant-observation, audio-visual documentation, musical representation and analysis, ethics; student fieldwork projects.

MUSIC 613. Seminar in Music Theory (3)

Prerequisite: Classified standing.

Current advanced analytic techniques in various areas of music. Maximum credit nine units applicable to a master's degree.

MUSIC 614. Seminar in Music Theory: Conceptual Analysis of the Jazz Idiom (3)

Current advanced analytic techniques in the jazz idiom.

MUSIC 641. Piano Pedagogy: Adolescent to Adult (3)

Two lectures and three hours of laboratory.

Prerequisite: Graduate standing.

Study of music through the piano for adolescent to adult with analysis and application of appropriate teaching procedures and learning theories. Analysis of literature with corresponding techniques, musical skills, and creativity. Supervised teaching.

Music and Dance

MUSIC 651. Advanced Performance Studies (1-3)

Thirteen one-half hour private lessons (1 unit); 13 one-hour private lessons (2 units); 19 one-half hours private lessons (3 units).

Prerequisite: Audition before music faculty. Music 651B for one unit includes M.F.A. in drama students.

Advanced studies in technical, stylistic, and aesthetic elements of artistic performance culminating in a graduate recital. Maximum credit nine units; four units may be applicable to the master of arts degree. Music 651M will include regular ensemble conducting experience.

- | | |
|--------------------------|---|
| A. Keyboard | H. Harp |
| B. Voice | I. Jazz Instrument |
| C. Woodwind | J. Medieval / Renaissance Instrument |
| D. Brass | K. Non-Western Instrument |
| E. Percussion | L. Composition |
| F. Strings | M. Conducting |
| G. Classic Guitar | |

MUSIC 652. Seminar in Music History (3)

Prerequisite: Classified standing.

Intensive study of music history. Maximum credit nine units applicable to a master's degree.

MUSIC 654. Seminar in Music History: Music Historiography in Global Perspective (3)

Prerequisite: Credit or concurrent registration in Music 690.

Music history through global case studies.

MUSIC 690. Seminar in Research Procedures in Music (3)

Reference materials, bibliography, investigation of current research in music, processes of thesis topic selection and techniques of scholarly writing.

MUSIC 696. Special Topics in Music (1-3)

Prerequisite: Graduate standing.

Intensive study in specific areas of music. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MUSIC 760. Qualifying Recital (1) Cr/NC

Prerequisite: Successful completion of one semester in the artist diploma advanced certificate program.

Theoretical analysis and historical study of chosen scores. Recital program of at least 45 minutes in length before a graduate committee of music department faculty completed prior to second year of artist diploma advanced certificate program.

MUSIC 766. Graduate Lecture Recital (3) Cr/NC

Prerequisites: Advancement to candidacy. Consent of school director.

For students in M.A. in Music, Plan B. A graduate presentation that may include elements of lecture and/or performance. Approximately one hour in length, the presentation is based upon a written document dealing with a musical problem in history, theory, pedagogy or ethno-musicology showing evidence of original research. Public presentation and an examination before a graduate committee of music faculty.

MUSIC 767. Graduate Recital (3) Cr/NC

Prerequisites: Advancement to candidacy. Consent of school director.

Selection of literature for recital program of at least one hour in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before a graduate committee of music department faculty. Conductors must conduct a public performance.

MUSIC 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with school director and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

MUSIC 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for a master's degree.

MUSIC 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

MUSIC 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Dance (DANCE)

GRADUATE COURSES

DANCE 696. Special Topics in Dance (1-3)

Prerequisite: Graduate standing.

Specialized study of selected topics in dance. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

DANCE 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Graduate standing, consent of school director and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Natural Science

IN THE COLLEGE OF SCIENCES
ADMINISTERED BY THE DEPARTMENT OF PHYSICS

OFFICE: Physics 131
TELEPHONE: 619-594-6240
WEBSITE: <http://physics.sdsu.edu>

General Information

The natural science program offers advanced coursework in natural science and science education. Graduate courses in natural science and science education may be used to fulfill requirements for advanced degrees in other departments with the approval of the student's graduate adviser. For information on master's and doctoral programs see Mathematics and Science Education.

Courses (N SCI)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSE

N SCI 596. Special Topics in Natural Science (1-4)

Prerequisites: Minimum 10 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSE

N SCI 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with coordinator and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Nursing

IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Adams Humanities 3138

TELEPHONE: 619-594-5357 / **FAX:** 619-594-2765

WEBSITE: <http://nursing.sdsu.edu>

Faculty

Philip A. Greiner, D.N.Sc., Professor of Nursing, Director of School

Willia L. Fields, D.N.Sc., Professor of Nursing

Lauren P. Hunter, Ph.D., CNM, Professor of Nursing

Lorraine T. Fitzsimmons, D.N.S., APRN, FNP, ANP-BC,

Associate Professor of Nursing, Emeritus

Michael G. Gates, Ph.D., Associate Professor of Nursing

Sue A. Hadley, D.N.S., APRN, GNP, ANP-BC,

Associate Professor of Nursing

Young-Shin Lee, Ph.D., Associate Professor of Nursing

Beverly A. Carlson, Ph.D., R.N., CNS, CCRN-K, FAHA, Assistant

Professor of Nursing (Graduate Adviser)

General Information

The School of Nursing offers a graduate curriculum leading to the Master of Science degree in nursing.

Graduates of the nursing program will be prepared to function as middle or executive-level nursing administrators, nurse-midwives, clinical nurse specialists, and/or nurse practitioners. There are four concentrations: Advanced Practice Nursing of Adults and the Elderly, Community Health Nursing, Nursing Leadership in Health Care Systems, Women's Health and Midwifery. Students in the Women's Health and Midwifery concentration may specialize in Nurse-Midwife, Nurse-Midwife and Women's Health Nurse Practitioner, or Women's Health Nurse Practitioner. Students in Advanced Practice Nursing of Adults and the Elderly are prepared as either adult/gerontology nurse practitioners and clinical nurse specialists or clinical nurse specialists and nurse educators. The graduate program requires a minimum of 37 units. The program is designed for either full- or part-time study. All graduates of the program are prepared for beginning roles as nurse researchers and for further educational opportunities in doctoral studies.

The School of Nursing has clinical contracts with all of the leading research and clinical teaching health care agencies within the county. Furthermore, graduate faculty are doctorally prepared, and students may have the opportunity to be involved in ongoing faculty research projects.

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Nursing.

Graduate Admissions

The following materials should be submitted directly to:

Graduate Admissions

Enrollment Services
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Transcripts may be sent electronically directly from an institution. If you are required to provide an e-mail address to send the secure online document to SDSU, please use transcriptsforSDSU@sdsu.edu.
- Students who attended SDSU need only submit transcripts for work completed since last attendance.
- Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

2. GRE scores (<http://www.ets.org> SDSU institution code 4682);

3. English language or IELTS score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Nursing

The following admissions materials must be submitted electronically via Interfolio at <https://apply.interfolio.com/46948>. The Cal State Apply application must be completed prior to the School of Nursing application.

1. School of Nursing departmental application;
2. Three letters of recommendation attesting to capability to do graduate work in nursing;
3. Personal statement;
4. One copy of unofficial transcript;
5. Curriculum vitae or resume.

For information regarding the admissions process, visit the school website at <http://nursing.sdsu.edu>.

Section I. Master's Degree Programs

Admission to the Degree Curriculum

In addition to the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, a student must satisfy the following requirements before being recommended for admission to a program with classified standing:

1. Have a baccalaureate degree with a major in nursing from a program accredited by the Accreditation Commission for Education in Nursing (ACEN) or the Commission on Collegiate Nursing Education (CCNE). Graduates from baccalaureate programs not having an upper division major in nursing or who have deficiencies will be considered on an individual basis and may be required to enroll in designated undergraduate courses and graduate courses beyond the minimum units necessary for advanced degrees.
2. Have a minimum cumulative grade point average of 3.0 on a 4.0 scale in undergraduate upper division courses.
3. Must have satisfactory score on GRE General Test.
4. Have a current California license to practice registered nursing.
5. One year of work experience as a registered nurse is preferred before starting concentration/specialization courses. For Nurse-Midwife applicants, the experience must be birth related. For the Advanced Practice Nursing of Adults and Elderly, three years of related experience is highly recommended.
6. Have satisfactorily completed a course in statistics. (Statistics 250 or equivalent with a grade of C or better.)

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. Students must satisfactorily complete at least 12 units of nursing courses listed on the official program of study with a minimum grade point average of 3.0 and be recommended by the graduate adviser.

Specific Requirements for the Master of Science Degree

(Major Code: 12032)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree, as described in Part Four of this bulletin, the student must complete an officially approved 37-58 unit course of study. The program includes:

1. Thirteen units of core courses to include Nursing 604A, 604B, 608, 622, and 684.
2. A minimum of 18-45 units of graduate courses in the area of concentration or specialization.
3. Zero to six units of electives.
4. Nursing 799A, Thesis, OR Plan B Option, Comprehensive Examination, Nursing 798 (see below).

Students in all concentrations may choose between Plan A, Thesis or Project, or Plan B, Comprehensive Examination or Comprehensive Evidence-based change project. The choice of Plan A or Plan B should be made early in the program. Students should consult with the concentration chair for current policies. Up to 12 semester units may be accepted in transfer from an accredited School of Nursing.

Community Health Nursing Concentration

(SIMS Code: 554621)

Specialization in School Nursing

(SIMS Code: 554633)

Admission currently suspended for the Specialization in School Nursing.

Students admitted to the school nursing specialization within the community health nursing concentration will pursue a program of studies leading to a Master of Science in nursing degree and a school nurse services credential. In addition to the Master of Science degree curriculum, to receive the school nurse services credential, students must complete a three unit audiometry course selected with approval of adviser. Required courses are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization.....	3
NURS 684	Information Systems for Nursing.....	2
		<u>13</u>

Community Health Nursing Concentration Courses

NURS 631	Community Health Nursing Practicum.....	3
NURS 632	Community Health Nursing.....	3
NURS 799A	Thesis OR NURS 798 (Plan B).....	3
		<u>9</u>

Specialization Courses

NURS 601	Assessment and Health Promotion of Children and Adolescents.....	3
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
SPED 500	Human Exceptionality.....	3
	Elective with approval of graduate adviser.....	3
		<u>18</u>

Total Units.....40

Women's Health and Midwifery Concentration

(SIMS Code: 554622)

Specialization as a Nurse-Midwife

(SIMS Code: 554651)

Admission currently suspended for the Specialization as a Nurse-Midwife.

Graduates meet requirements for certification and licensure by the California Board of Registered Nursing. Graduates are eligible to sit for select national certification examinations. The program is accredited by the American College of Nurse-Midwives (ACME: Accreditation Commission for Midwifery Education, 8403 Colesville Road, Suite 1550, Silver Spring, MD 20910-6374, 240-485-1802), <http://www.midwife.org/acme.cfm>, and the Commission on Collegiate Nursing Education (CCNE). Part-time (3 to 4 years) and full-time (2 years) options of study are available. Required courses and units for the two-year nurse-midwife specialization are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization.....	3
NURS 684	Information Systems for Nursing.....	2
		<u>13</u>

Women's Health and Midwifery Concentration Course

NURS 799A	Thesis OR NURS 798 (Plan B).....	3
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Specialization Courses

NURS 501	Advanced Health Assessment and Health Promotion.....	3
NURS 501L	Advanced Health Assessment and Health Promotion Laboratory.....	1
NURS 610	Pathophysiology in Adults and the Elderly.....	3
NURS 636	Women's Health Assessment and Management I.....	3
NURS 637	Women's Health/Nurse-Midwifery Clinical Practicum I.....	2
NURS 638	Nurse-Midwifery Intrapartum/Newborn Assessment and Management.....	3
NURS 639	Women's Health/Nurse-Midwifery Clinical Practicum II.....	6
NURS 654	Advanced Practice Nursing: Primary Care I.....	3
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 744	Women's Health/Nurse-Midwifery Assessment and Management III.....	3
NURS 745	Women's Health/Nurse-Midwifery Clinical Practicum III.....	6
		<u>36</u>

Total Semester Units.....52

Nursing

Specialization as a Nurse-Midwife and Women's Health Nurse Practitioner (SIMS Code: 554652)

Admission currently suspended for the Specialization as a Nurse-Midwife and Women's Health Nurse Practitioner.

Graduates meet requirements for certification and licensure by the California Board of Registered Nursing. Graduates are eligible to sit for select national certification examinations. The program is accredited by the American College of Nurse-Midwives (ACME: Accreditation Commission for Midwifery Education, 8403 Colesville Road, Suite 1550, Silver Spring, MD 20910-6374, 240-485-1802) and the Commission on Collegiate Nursing Education (CCNE). It is certified by the National Certification Corporation (NCC). Part-time (3 to 4 years) and full-time (2 years) options of study are available. Required courses and units for the two-year nurse-midwife and women's health nurse practitioner specialization are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization	3
NURS 684	Information Systems for Nursing.....	2
		13

Women's Health and Midwifery Concentration Course

NURS 799A	Thesis OR NURS 798 (Plan B).....	3
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Specialization Courses

NURS 501	Advanced Health Assessment and Health Promotion	3
NURS 501L	Advanced Health Assessment and Health Promotion Laboratory.....	1
NURS 610	Pathophysiology in Adults and Elderly.....	3
NURS 636	Women's Health Assessment and Management I.....	3
NURS 637	Women's Health/Nurse-Midwifery Clinical Practicum I.....	4
NURS 638	Nurse-Midwifery Intrapartum/Newborn Assessment and Management	3
NURS 639	Women's Health/Nurse-Midwifery Clinical Practicum II.....	6
NURS 654	Advanced Practice Nursing: Primary Care I.....	3
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 741	Integrated Women's Health/ Nurse-Midwifery Clinical Practicum.....	4
NURS 744	Women's Health/Nurse-Midwifery Assessment and Management III.....	3
NURS 745	Women's Health/Nurse-Midwifery Clinical Practicum III.....	6
		42

Total Semester Units.....58

Specialization as a Women's Health Nurse Practitioner (SIMS Code: 554653)

Admission currently suspended for the Specialization as a Women's Health Nurse Practitioner.

Graduates meet requirements for certification and licensure by the California Board of Registered Nursing. Graduates are eligible to sit for select national certification examinations. The program is accredited by the Commission on Collegiate Nursing Education (CCNE) and certified by the National Certification Corporation (NCC). Part-time (3 to 4 years) and full-time (2 years) options of study are available. Required courses and units for the two year women's health care nurse practitioner specialization are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization	3
NURS 684	Information Systems for Nursing.....	2
		13

Women's Health and Midwifery Concentration Course

NURS 799A	Thesis OR NURS 798 (Plan B).....	3
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Specialization Courses

NURS 501	Advanced Health Assessment and Health Promotion	3
NURS 501L	Advanced Health Assessment and Health Promotion Laboratory.....	1
NURS 610	Pathophysiology in Adults and Elderly.....	3
NURS 636	Women's Health Assessment and Management I.....	3
NURS 637	Women's Health/Nurse-Midwifery Clinical Practicum I.....	2
NURS 638	Nurse-Midwifery Intrapartum/Newborn Assessment and Management	3
NURS 639	Women's Health/Nurse-Midwifery Clinical Practicum II.....	6
NURS 654	Advanced Practice Nursing: Primary Care I.....	3
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 744	Women's Health/Nurse-Midwifery Assessment and Management III.....	3
NURS 745	Women's Health/Nurse-Midwifery Clinical Practicum III.....	4
		34

Total Semester Units.....50

Advanced Practice Nursing of Adults and the Elderly Concentration

(SIMS Code: 554629)

Specialization in Acute/Critical Care Nursing (Clinical Nurse Specialist and Nurse Educator Preparation) (SIMS Code: 554635)

Admission currently suspended for the Clinical Nurse Specialist and Nurse Educator Preparation.

All graduates meet requirements for clinical nurse specialist (CNS) certification in California and are eligible to sit for the national Adult-Gerontology Acute Care Clinical Nurse Specialist certification.

Required courses for the Master of Science degree with a concentration in advanced practice nursing of adults and the elderly and a specialization in acute/critical care nursing (CNS) and nurse educator preparation are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization	3
NURS 684	Information Systems for Nursing.....	2
		<u>13</u>

Advanced Practice Nursing of Adults and the Elderly Concentration Courses

NURS 501	Advanced Health Assessment and Health Promotion	3
NURS 501L	Advanced Health Assessment and Health Promotion Laboratory	1
NURS 610	Pathophysiology in Adults and the Elderly.....	3
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 799A	Thesis OR NURS 798 (Plan B).....	3
		<u>13</u>

Specialization Courses

NURS 644	Program and Curriculum Development in Nursing Education.....	3
NURS 645	Teaching and Learning in Nursing Education.....	3
NURS 646	Nursing Education Practicum	3
NURS 751	Advanced Practice Nursing: Acute/Critical Care Theory and Technology	3
NURS 753	Advanced Practice Nursing: Acute and Critical Care Practicum.....	6
		<u>18</u>

Total Semester Units.....44

(Nurse Practitioner and Clinical Nurse Specialist Preparation)

(SIMS Code: 554630)

All graduates meet requirements for nurse practitioner and clinical nurse specialist certification in California and are eligible to sit for the national Adult-Gerontology Primary Care Nurse Practitioner certification and Adult-Gerontology Acute Care Clinical Nurse Specialist certification.

Required courses for the Master of Science degree with a concentration in advanced practice nursing of adults and the elderly and a specialization in acute/critical care nursing are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization	3
NURS 684	Information Systems for Nursing.....	2
		<u>13</u>

Advanced Practice Nursing of Adults and the Elderly Concentration Courses

NURS 501	Advanced Health Assessment and Health Promotion	3
NURS 501L	Advanced Health Assessment and Health Promotion Laboratory	1
NURS 610	Pathophysiology in Adults and the Elderly.....	3
NURS 654	Advanced Practice Nursing: Primary Care I.....	3
NURS 655	Advanced Practice Nursing: Primary Care Practicum I.....	6
NURS 656	Advanced Practice Nursing: Primary Care II	3
NURS 657	Advanced Practice Nursing: Primary Care Practicum II.....	6
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 799A	Thesis OR NURS 798 (Plan B).....	3
		<u>31</u>

Specialization Courses

NURS 751	Advanced Practice Nursing: Acute/Critical Care Theory and Technology	3
NURS 753	Advanced Practice Nursing: Acute and Critical Care Practicum.....	3
		<u>6</u>

Total Units.....50

Nursing

Nursing Education Concentration

(SIMS Code: 554641)

Admission currently suspended for the Nursing Education Concentration.

Graduates of the nursing education concentration will be prepared for positions in academic and/or clinical settings within three areas of specialization: Adult Health, Maternal/Newborn, and Pediatric Nursing. Required courses for the concentration are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization	3
NURS 684	Information Systems for Nursing.....	2
		<u>13</u>

Area of Concentration Courses

NURS 644	Program and Curriculum Development in Nursing Education.....	3
NURS 645	Teaching and Learning in Nursing Education.....	3
NURS 646	Nursing Education Practicum.....	3
NURS 799A	Thesis OR NURS 798 (Plan B).....	3
Directed elective: Education focus.....		3
		<u>15</u>

Advanced Clinical Content

(students select one specialization)

Adult Health (SIMS Code: 554642)

NURS 501	Advanced Health Assessment and Health Promotion	3
NURS 501L	Advanced Health Assessment and Health Promotion Laboratory.....	1
NURS 610	Pathophysiology in Adults and the Elderly.....	3
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 751	Advanced Practice Nursing: Acute/Critical Care Theory and Technology	3
		<u>13</u>

Total Units..... 41

Maternal/Newborn (SIMS Code: 554643)

NURS 636	Women's Health Assessment and Management I.....	3
NURS 638	Nurse-Midwifery Intrapartum/Newborn Assessment and Management	3
NURS 658	Clinical Pharmacology for Advanced Practice Nursing.....	3
NURS 744	Women's Health/Nurse-Midwifery Assessment and Management III.....	3
		<u>12</u>

Total Units..... 40

Pediatric Nursing (SIMS Code: 554646)

NURS 601	Assessment and Health Promotion of Children and Adolescents	3
NURS 672	Primary Health Care of the School Aged Child.....	3
CFD 537	Child Abuse and Family Violence	3
OR		
CFD 560	Theories in Socio-Emotional Development.....	3
NURS 798	Special Study (Cr/NC/RP)	3
		<u>12</u>

Total Units..... 40

Nursing Leadership in Health Care Systems Concentration

(SIMS Code: 554645)

Required courses for the Master of Science degree with a concentration in nursing leadership in health care systems are as follows:

Core Courses

NURS 604A	Theoretical and Research Bases of Nursing I.....	3
NURS 604B	Theoretical and Research Bases of Nursing II.....	2
NURS 608	Nursing in the Health Care System.....	3
NURS 622	Quality Improvement and Program Evaluation in Nursing Systems Organization	3
NURS 684	Information Systems for Nursing.....	2
		<u>13</u>

Area of Concentration Courses

NURS 620	Foundations of Nursing Administration Practice.....	3
NURS 624	Nursing Care Systems and Personnel Management	3
NURS 724	Nursing Systems Administration Practicum.....	3
NURS 725	Financial Management in Health Systems	3
OR		
P H 742A	Health Services Financial Management.....	3
NURS 726	Advanced Nursing Systems Administration Practicum.....	3
Elective with approval of concentration chair		3
		<u>18</u>

NURS 797	Research	3
NURS 799A	Thesis OR NURS 798 (Plan B).....	3

Total Units..... 37

Section II. Credential and Certificate Program

School Nurse Services Credential

(Credential Code: 00600)

Admission currently suspended for the School Nurse Services Credential.

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 or the School of Nursing website.

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. Satisfactory completion of the program requires an overall GPA of 3.0.

Standards for Admission

1. Baccalaureate degree in nursing or related field.
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 health services credential candidates:

NURS 601	Assessment and Health Promotion of Children and Adolescents.....	3
NURS 631	Community Health Nursing Practicum.....	3
NURS 632	Community Health Nursing.....	3
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
SPED 500	Human Exceptionality.....	3
Audiometry:	Three unit course selected with approval of adviser.....	3
Elective with approval of graduate adviser.....		3
Total Units.....		27

Nursing Education Certificate

(SIMS Code: 554681)

Admission currently suspended for the Nursing Education Certificate.

The School of Nursing offers a curriculum leading to an Advanced Certificate in Nursing Education. The certificate program prepares nurses holding master's degrees in nursing for the educator role in academic or clinical settings.

Applicants seeking admission to the Advanced Certificate in Nursing Education must be admitted to the university and accepted as a classified postbaccalaureate student.

Satisfactory completion of the program requires an overall grade point average of 3.0 with individual course grades above 2.0.

For more information visit the School of Nursing website at <http://nursing.sdsu.edu>.

Students who enter the Advanced Certificate in Nursing Education and later decide they wish to transfer to the master's program

in nursing education should consult with the graduate adviser. All courses in this certificate program are transferable to the master's degree in nursing education.

Admission requirements

1. Current California Registered Nurse license.
2. Master's degree in nursing.

Program (12 units)

NURS 644	Program and Curriculum Development in Nursing Education.....	3
NURS 645	Teaching and Learning in Nursing Education.....	3
NURS 646	Nursing Education Practicum.....	3
Elective: Graduate level course with education emphasis selected with consent of adviser.....		3

Courses Acceptable for Master's and Doctoral Degree Programs in Nursing (NURS)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NURS 501. Advanced Health Assessment and Health Promotion (3)

Prerequisites: Consent of School of Nursing graduate adviser; concurrent registration in Nursing 501L.

Physical and psychosocial assessment techniques, health promotion strategies for select populations.

NURS 501L. Advanced Health Assessment and Health Promotion Laboratory (1)

Three hours of laboratory.

Prerequisites: Consent of School of Nursing graduate adviser; concurrent registration in Nursing 501.

Laboratory experience in advanced health assessment and health promotion.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

NURS 601. Assessment and Health Promotion of Children and Adolescents (3)

Two lectures and three hours of laboratory.

Prerequisite: Admission to the master's degree program in nursing or school nurse services credential.

Assessing physical, emotional, psychosocial and mental health of children and adolescents from birth to 19 years in hospital and community settings. Strategies for individual and group assessment. Age-appropriate interview techniques. Health promotion modalities.

NURS 604A. Theoretical and Research Bases of Nursing I (3)

Integration of theory and research in nursing. Research process including quantitative design, measurement, analysis, and research ethics.

NURS 604B. Theoretical and Research Bases of Nursing II (2)

Prerequisite: Nursing 604A.

Integration of theory and research in nursing. Evidence-based practice and use in professional nursing practice, qualitative research methods, publishing, and grant writing.

NURS 608. Nursing in the Health Care System (3)

Nursing in a changing health care delivery system. Organizational, economic, political, and professional concepts relevant to design and delivery of nursing care.

Nursing

NURS 610. Pathophysiology in Adults and the Elderly (3)

Prerequisite: Consent of graduate adviser.

Physiologic alterations associated with acute and chronic illness in adults and the elderly as a basis for primary prevention and medical and nursing interventions.

NURS 620. Foundations of Nursing Administration Practice (3)

Analysis of communication concepts appropriate to a variety of complex nursing and health care delivery systems.

NURS 622. Quality Improvement and Program Evaluation in Nursing Systems Organizations (3)

Evaluation theories and concepts within a nursing care delivery system and health care organization. Concepts of quality management, consistent with accreditation criteria and professional standards of practice.

NURS 624. Nursing Care Systems and Personnel Management (3)

Issues related to personnel resources, staff development, staff utilization and collective bargaining in health care agencies and nursing care systems.

NURS 631. Community Health Nursing Practicum (3)

Nine hours per week.

Experience working with individuals and families of a selected community group applying theoretical knowledge within framework of nursing process.

NURS 632. Community Health Nursing (3)

Prerequisites: Nursing 415, 415L, and admission to school nurse or nurse-midwife programs.

Community and needs assessments. Community participation and transcultural considerations. Grant writing, ethical dilemmas, evidence-based practice, program planning, staffing, budgeting, and evaluation.

NURS 636. Women's Health Assessment and Management I (3)

Prerequisites: Nursing 501, 501L, 610, 658. Concurrent registration in Nursing 637.

Comprehensive assessment and management of ambulatory care for women throughout childbearing cycle. Pregnancy, prenatal care, fetal physiology, and development.

NURS 637. Women's Health/Nurse-Midwifery Clinical Practicum I (2 or 4 or 6)

Six to 18 hours per week in consultation with adviser.

Prerequisite: Concurrent registration in Nursing 636.

Laboratory and clinical experiences providing obstetrical, gynecological, primary, and well woman care throughout lifespan. Maximum credit six units.

NURS 638. Nurse-Midwifery Intrapartum/Newborn Assessment and Management (3)

Prerequisites: Nursing 636 and 637.

Assessment and management of women with emphasis on labor and birth, postpartum, and normal newborn.

NURS 639. Women's Health/Nurse-Midwifery Clinical Practicum II (4 or 6)

Twelve to 18 hours per week in consultation with adviser.

Prerequisite: Concurrent registration in Nursing 638.

Clinical experiences in one or more of the following settings: gynecological, well women/family planning, primary care, obstetrics/prenatal, intrapartum, post-partum, and newborn care.

NURS 644. Program and Curriculum Development in Nursing Education (3)

Prerequisite: Graduate standing.

Role of nurse educators in academic and clinical settings including staff development and outcome evaluation. State, federal, and professional regulatory environment of nursing programs.

NURS 645. Teaching and Learning in Nursing Education (3)

Prerequisite: Credit or concurrent registration in Nursing 644.

Classroom and clinical teaching strategies in nursing education. Measuring learning, item and examination construction, evaluation, designing written assignments and clinical evaluation tools, and working with challenging learners.

NURS 646. Nursing Education Practicum (3)

One hundred thirty-five hours of practicum over the semester.

Prerequisite: Nursing 645.

Theory related to practice while teaching in academic and/or clinical settings. Nurse educator activities across the spectrum to include committee work, classroom and clinical teaching and evaluation of learners.

NURS 654. Advanced Practice Nursing: Primary Care I (3)

Prerequisites: Nursing 501, 501L, 604A, 610, 658, 684. Concurrent registration in Nursing 655.

Primary care management of adults and elderly with acute and chronic health problems. Role of advanced practice nursing in health promotion and treatment of illness in primary care and specialized settings.

NURS 655. Advanced Practice Nursing: Primary Care Practicum I (6)

Eighteen hours of laboratory per week.

Prerequisite: Concurrent registration in Nursing 654.

Supervised clinical experiences providing primary care to adults and elderly in diverse clinical settings.

NURS 656. Advanced Practice Nursing: Primary Care II (3)

Prerequisites: Nursing 654 and 655. Concurrent registration in Nursing 657.

Primary care management of adults and elderly with acute and chronic health problems. Contemporary role and psychosocial issues in advanced practice nursing of adults and elderly.

NURS 657. Advanced Practice Nursing: Primary Care Practicum II (6)

Eighteen hours of laboratory per week.

Prerequisites: Nursing 654 and 655. Concurrent registration in Nursing 656.

Supervised clinical experiences providing primary care to adults and elderly in diverse clinical settings.

NURS 658. Clinical Pharmacology for Advanced Practice Nursing (3)

Prerequisite: Consent of graduate adviser.

Pharmacologic knowledge and skills needed to manage drug therapy in various clinical settings. Emphasis on factors affecting drug selection; parameters to be monitored to determine drug effectiveness; rationale for continuing, modifying or discontinuing drug therapy.

NURS 670. School Nursing Management Practices (3)

Prerequisite: Admission to master's degree program in nursing or health services credential.

Management of school health services program; designed for school nurse with emphasis on professional and organizational systems.

NURS 672. Primary Health Care of the School Aged Child (3)

Prerequisites: Nursing 501 and 501L.

Primary health care of the child and adolescent with emphasis on common health problems, chronic illness, drugs, behavioral problems, and the battered child.

NURS 674. Health Education for School Nurses (3)

Prerequisite: Nursing 672.

Prepares school nurse to be an active participant in school health education with emphasis on planning and presentation of health instructional material focused on disease prevention and health promotion.

NURS 684. Information Systems for Nursing (2)

Information systems and information management in all aspects of nursing practice including client care, administration, research and education. Ethics of computer use and influence of information technology on client care. User skills.

NURS 696. Seminar in Selected Topics in Nursing (1-3)

Intensive study in specific areas of nursing. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

NURS 724. Nursing Systems Administration Practicum (3)

Nine hours of laboratory.

Prerequisites: Nursing 622 and concurrent registration in Nursing 624.

Provides observation and guided administrative experience specific to the role and function of the first level nurse manager in a selected health care system. Needs and individual objectives of the student are integrated into the experience.

NURS 725. Financial Management in Health Systems (3)

Prerequisite: Nursing 620 or Public Health 641 or 650.

Health care economics, budget planning and management skills and financial analysis skills necessary to facilitate management decision making and writing business plans.

NURS 726. Advanced Nursing Systems Administration Practicum (3)

Nine hours of laboratory.

Prerequisite: Nursing 724.

Provides observation and guided administrative experience specific to the role and function of the executive level manager in a selected health care system. Individual needs and objectives of the student are integrated into the experience.

NURS 741. Integrated Women's Health/Nurse-Midwifery Clinical Practicum (2 or 4 or 6)

Prerequisites: Nursing 637 and 638.

Supervised laboratory and clinical experiences (off campus) providing obstetrical, intrapartum, newborn, gynecological, primary and well women care for adolescent and adult women throughout the lifespan in diverse clinical settings. Maximum credit six units.

NURS 744. Women's Health/Nurse-Midwifery Assessment and Management III (3)

Prerequisites: Nursing 638. Concurrent registration in Nursing 745.

Theoretical concepts and principles applied to management of pathophysiological and psychological issues in women's health-care. Contemporary issues in well women, gynecological, and primary care.

NURS 745. Women's Health/Nurse-Midwifery Clinical Practicum III (4-6)

Twelve to 18 hours per week in consultation with adviser.

Prerequisite: Concurrent registration in Nursing 744.

Clinical experiences in one or more of the following settings: gynecological, well women/family planning, primary care, obstetrics/prenatal, intrapartum, post-partum, and newborn care.

NURS 751. Advanced Practice Nursing: Acute/Critical Care Theory and Technology (3)

Prerequisite: Consent of advanced practice nursing concentration chair.

Role of advanced practice nurse in acute/critical care settings. Problems and interventions with acutely and critically ill adults and elderly. Emphasis on research-based interventions, psychosocial responses, standards of practice, expanding technologies, and continuation of care to the home.

NURS 753. Advanced Practice Nursing: Acute and Critical Care Practicum (3)

Nine hours of laboratory.

Prerequisite: Concurrent registration in Nursing 751.

Care management activities of acute and critical care advanced practice nurse: research-based care of select adult and elderly clients and families; consultation in coordination of client care; interdisciplinary collaboration; evaluation of care based on standards of practice. Maximum credit six units applicable to a master's degree.

NURS 797. Research (1-3) Cr/NC/RP

Prerequisite: Advancement to candidacy.

Independent research in a specialized subject. Maximum six units applicable to a master's degree.

NURS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of instructor.

Independent study. Maximum credit six units applicable to a master's degree. For students using Plan B, Comprehensive Examination is limited to three units.

NURS 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

NURS 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A, in which the student expects to use the facilities and resources of the university. Also student must be registered in the course when the completed thesis is granted final approval.

NURS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Nutritional Sciences

IN THE SCHOOL OF EXERCISE AND NUTRITIONAL SCIENCES
IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Exercise and Nutritional Sciences 351

TELEPHONE: 619-594-5541

WEBSITE: <https://ens.sdsu.edu>

Faculty

Matthew T. Mahar, Ed.D., Professor of Exercise and Nutritional Sciences, Director of School

Mee Young Hong, Ph.D., Professor of Exercise and Nutritional Sciences

Mark J. Kern, Ph.D., Professor of Exercise and Nutritional Sciences

Shirin Hooshmand, Ph.D., Associate Professor of Exercise and Nutritional Sciences

Changqi Liu, Ph.D., Assistant Professor of Exercise and Nutritional Sciences

Joan W. Rupp, M.S., RDN, Lecturer in Exercise and Nutritional Sciences

Associateships and Assistantships

Graduate teaching associateships are available for a limited number of qualified students. These provide essential education, technical training, and creative experience necessary for future professional and scholarly activity or college-level teaching. Graduate assistantships are also available in some cases to aid faculty research. Applications and additional information on graduate programs may be obtained from the School of Exercise and Nutritional Sciences website at <http://ens.sdsu.edu>.

General Information

The School of Exercise and Nutritional Sciences offers graduate study leading to the Master of Science degree in nutritional sciences and a concurrent graduate program leading to the Master of Science degree in nutritional science and Master of Science degree in exercise physiology.

Enrollment in the didactic program in dietetics (accredited by the Accreditation Council for Education in Nutrition and Dietetics), is limited to 16 graduate students and to those students admitted to the Master of Science degree program in nutritional sciences, or the concurrent Master of Science degree in nutritional science and Master of Science degree in exercise physiology. For admission consideration to the didactic program in dietetics, students must have completed all of the following (or equivalent courses) with a GPA of 3.1 or better: Biology 100, 100L, 211, 211L, 212, 336; Chemistry 100, 130, 160; and a statistics course (e.g. Psychology 280).

Admission to Graduate Study

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Exercise and Nutritional Sciences.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Science Degree in Nutritional Sciences

General Information

For information regarding graduate coursework and research experience leading to a Master of Science degree in nutritional sciences, contact the graduate adviser in the School of Exercise and Nutritional Sciences. The general program of study may include coursework in nutrition or food science. Thesis research in nutrition may be conducted using human subjects or experimental animals. Research activity of the faculty currently includes: nutritional status of children, elders, and ethnic groups; metabolic studies on cholesterol and energy balance; and factors affecting human lactation, body composition and obesity, athletic performance and fitness, composition of human milk and composition and stability of foods. Laboratories, including animal facilities and equipment, at SDSU support research conducted under the direct supervision of the nutritional sciences graduate faculty. In addition, students may conduct research at other facilities in the community in conjunction with collaborative studies pursued by nutritional sciences faculty and researchers at other institutions in San Diego.

Graduates with the M.S. degree in nutritional sciences are employed as administrators or service providers of community nutrition programs, food service supervisors, and community college educators, as well as, in administrative, research, or quality control positions within industry and government.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, students must have bachelor's degrees in foods and nutrition or related fields and satisfy the prerequisites of the courses selected. If students' undergraduate preparation is deemed insufficient, students will be required to complete specified courses in addition to the minimum of 30 units required for the master's degree in nutritional sciences. Students must have a grade point average of at least 3.0 overall or at least 3.0 in the last 60 units of baccalaureate coursework, and a minimum score of 475 (old GRE score) or 151 (new GRE score) on the verbal and 475 (old GRE score) or 142 (new GRE score) on the quantitative sections of the GRE General Aptitude Test.

Students will be admitted ONLY in the fall semester. Submit applications by the application deadline.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 13061) (SIMS Code: 552933)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units including at least 21 units from courses listed as acceptable to the master's degree program in nutritional sciences. At least 18 units must be in 600- and 700-numbered courses. Also, students complete their degree by choosing either Plan A or Plan B. In Plan A, students will include Nutrition 799A (thesis) for completion of their degree, accompanied by final oral examination on the field of the thesis and on the implications of the thesis research for the broader field of nutritional sciences. If students select Plan B, Exercise and Nutritional Sciences 790 (Directed Readings) is required for completion of the degree.

Required courses (15 units):

ENS 601	Experimental Methods in Exercise and Nutritional Sciences.....	3
ENS 602	Research Evaluation in Exercise and Nutritional Sciences.....	3
NUTR 607	Child Nutrition	3
NUTR 608	Geriatric Nutrition	3
NUTR 610	Nutrition and Energy	3

Select three units from the following:

NUTR 600	Seminar: Foods and Nutrition.....	3
NUTR 700	Seminar in Nutrition	3

Plan A

NUTR 799A	Thesis	3 Cr/NC/RP
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OR

ENS 799A	Thesis	3 Cr/NC/RP
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or Plan B

ENS 790	Seminar in Directed Readings.....	3 Cr/NC
Electives:	Nine units to be selected with approval of graduate adviser.	

If a student, after entering the concurrent graduate program leading to a Master of Science degree in nutritional science and a Master of Science degree in exercise physiology returns to a single degree program, all the requirements for the single degree program must then be met.

The school expects a student to complete the degree within seven years. Failure to complete the degree requirements within seven years will result in dismissal from the program.

Master of Science Degree in Nutritional Science and Master of Science Degree in Exercise Physiology

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, a student applying for admission to the concurrent program in nutritional science and exercise physiology must meet the following requirements.

1. A grade point average (GPA) of at least 3.0 overall or at least 3.0 in the last 60 units of baccalaureate coursework.
2. A bachelor's degree in foods and nutrition, exercise science, kinesiology, physical education, or related fields. Students will be required to complete or have equivalent preparation in Biology 212, 336, Chemistry 100, 130, 160, Nutrition 201, 302, 302L, and Exercise and Nutritional Sciences 303, 304, 304L, and an undergraduate statistics course.
3. A minimum score of 475 (old GRE score) or 151 (new GRE score) on the verbal and 475 (old GRE score) or 142 (new GRE score) on the quantitative sections of the GRE General Aptitude Test.

Students will be admitted ONLY in the fall semester.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science in Nutritional Science and Master of Science in Exercise Physiology

(Major Code: 08356) (SIMS Code: 552990)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 48 units as outlined below. Also, students complete their degree by choosing either Plan A or Plan B. In Plan A, all students will include Nutrition 799A (thesis) or Exercise and Nutritional Sciences 799A (thesis) for completion of their degree, accompanied by a final oral examination on the field of the thesis and on the implications of the thesis research for the broader field of exercise and nutritional sciences. If students select Plan B, Exercise and Nutritional Sciences 790 (Directed Readings) is required for completion of the degree.

DPT 750	Concepts in Physiology, Pathophysiology, and Pharmacology	4
DPT 830	Cardiopulmonary Therapeutics.....	4
ENS 601	Experimental Methods in Exercise and Nutritional Sciences.....	3
ENS 602	Research Evaluation in Exercise and Nutritional Sciences.....	3
ENS 661	Seminar in Advanced Physiology of Exercise	3
ENS 662	Advanced Exercise Physiology Laboratory.....	3
ENS 796	Exercise Specialist Internship.....	3 Cr/NC
NUTR 600	Seminar: Foods and Nutrition.....	3
NUTR 607	Child Nutrition	3
NUTR 608	Geriatric Nutrition	3
NUTR 610	Nutrition and Energy	3
NUTR 700	Seminar in Nutrition	3

Plan A

NUTR 799A	Thesis	3 Cr/NC/RP
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OR

ENS 799A	Thesis	3 Cr/NC/RP
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or Plan B

ENS 790	Seminar in Directed Readings.....	3 Cr/NC
Electives:	Seven units to be selected with approval of graduate adviser.	

If a student, after entering the concurrent program leading to a Master of Science degree in nutritional sciences and a Master of Science degree in exercise physiology returns to a single degree program, all the requirements for the single degree program must then be met.

The school expects the student to complete the degree requirements within seven years. Failure to complete the degree requirements within seven years will result in dismissal from the program.

Courses Acceptable for Master's Degree Programs (NUTR)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NUTR 510. Nutrition Education and Community Health (3)

Two lectures and three hours of activity.

Prerequisites: Nutrition 203 and 304 with a grade of C (2.0) or better in each course.

Nutrition counseling and education. Nutritional problems in the community with consideration of their resolution. Field placement experience required.

NUTR 596. Advanced Studies in Nutrition (1-6)

Prerequisites: Nine upper division units in nutrition.

Advanced study of selected topics. May be repeated with new content. See *Class 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 a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

NUTR 600. Seminar: Foods and Nutrition (3)

Prerequisites: Nutrition 301, 302, and 302L.

Introductory seminar of research and research publications in foods and nutrition.

NUTR 607. Child Nutrition (3)

Prerequisites: Nutrition 302 and 302L.

Nutrition, health, and biochemical growth in children. Conditions leading to malnutrition, prevention, and correction.

NUTR 608. Geriatric Nutrition (3)

Prerequisites: Nutrition 302 and 302L.

Biomedical and psychosocial aspects of aging that affect food habits, nutritional status, and nutrient needs of elders.

NUTR 610. Nutrition and Energy (3)

Prerequisites: Nutrition 302 and 302L.

Methods for measurement of energy intake and expenditure assessment, factors which control food intake and energy expenditure, and examination of normal and specialized needs of energy requirements.

NUTR 700. Seminar in Nutrition (3)

Prerequisites: Nutrition 302 and 302L.

Reading and analyses of basic and applied research in nutrition.

NUTR 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with the instructor and approval of graduate program adviser.

Individual study. Maximum credit six units applicable to a master's degree.

NUTR 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the master's degree.

NUTR 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university, also student must be registered in the course when the completed thesis is granted final approval.

NUTR 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Oceanography and Marine Studies

ADMINISTERED BY THE DEPARTMENT OF GEOLOGICAL SCIENCES

OFFICE: Geology/Mathematics/Computer Science 237

TELEPHONE: 619-594-5586 / **FAX:** 619-594-4372

E-MAIL: geology@sdsu.edu

WEBSITE: <http://www.geology.sdsu.edu>

Faculty Committee for Marine Studies

Todd W. Anderson, Ph.D., Professor of Biology,

Director of Coastal and Marine Institute

Richard M. Gersberg, Ph.D., Professor of Public Health

Stephen A. Schellenberg, Ph.D., Professor of Geological Sciences
and Assistant Vice President for Educational Effectiveness of the
Division of Academic Engagement and Student Achievement

General Information

San Diego State University provides preparation for ocean-oriented careers by offering marine-related coursework, research opportunities and oceanographic experience within regular degree programs in the Departments of Biology, Chemistry and Biochemistry, Economics, Civil, Construction, and Environmental Engineering, Mechanical Engineering, Geography, Geological Sciences, and the Graduate School of Public Health. Degrees in general oceanography or marine studies are not offered by the university. However, a Master of Arts or Master of Science degree may be earned as an Interdisciplinary Studies major (see the appropriate section in this bulletin).

Specific courses in oceanography (listed below) are offered with the cooperation of faculty from the participating departments. Advanced coursework and research in geological and physical oceanography are conducted in the Geological Sciences Department. Advanced courses and research in biological oceanography, marine biology, marine botany, marine ecology, and marine zoology are in the Department of Biology. The Graduate School of Public Health also offers a Master of Science degree with a concentration in Environmental Health Science with a focus on water and soil contamination and management of hazardous wastes. Marine-related coursework and research are offered in the Departments of Economics, Geography and in the College of Engineering. Students who require advising in these areas should inquire at the Coastal and Marine Institute or the appropriate department.

The Coastal and Marine Institute coordinates work in the area of marine studies and provides special supporting services to the faculty, staff, and students which includes student advising, assistance in research and publication, and a boat operations and

research diving program. The director of the Coastal and Marine Institute reports to the dean of the College of Sciences. (For additional information, refer to College of Sciences in Part One.)

Courses Acceptable for Oceanography and Marine Studies

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Biology Courses (BIOL)

Adviser: Todd W. Anderson, Ph.D.

BIOL 515	Marine Invertebrate Biology.....	4
BIOL 517	Marine Ecology.....	4

Economics Course (ECON)

ECON 696	Experimental Topics.....	3*
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Civil Engineering Courses (CIV E)

CIV E 632	Computational Hydraulics and Hydrology.....	3
CIV E 641	Advanced Foundation Engineering.....	3

Geography Courses (GEOG)

Adviser: Douglas A. Stow, Ph.D.

GEOG 592	Intermediate Remote Sensing of Environment.....	3
GEOG 592L	Intermediate Remote Sensing of Environment Laboratory.....	1
GEOG 670	Environmental Conservation Theory.....	3
GEOG 770	Seminar in Environmental Conservation.....	3

Public Health Courses (P H)

Adviser: Richard M. Gersberg, Ph.D.

P H 634	Environmental Protection.....	3
P H 639	Water Quality Investigation.....	3

*Acceptable when of relevant content.

Philosophy

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 446

TELEPHONE: 619-594-5263

WEBSITE: <http://philosophy.sdsu.edu>

Faculty

Mark R. Wheeler, Ph.D., Associate Professor of Philosophy,
Chair of Department

Peter C. Atterton, Ph.D., Professor of Philosophy and Associate
Dean of the College of Arts and Letters

J. Angelo Corlett, Ph.D., Professor of Philosophy

Robert M. Francescotti, Ph.D., Professor of Philosophy

Sandra A. Wawrytko, Ph.D., Professor of Philosophy

Steven L. Barbone, Ph.D., Associate Professor of Philosophy
(Graduate Adviser)

Marie E. Draz, Ph.D., Assistant Professor of Philosophy

Joseph A. Stramondo, Ph.D., Assistant Professor of Philosophy

General Information

The Department of Philosophy offers a program of graduate studies leading to the Master of Arts degree. The purpose of the M.A. program in philosophy is to provide students with rigorous advanced training in philosophical reasoning on philosophical topics. The program serves students who wish to go on to pursue Ph.D. work in philosophy or other areas of advanced study; who seek skill development for professional careers such as teaching, law, business, and public service; and who seek personal enrichment through disciplined reflection on important and profound philosophical questions.

Nota bene: Anyone applying to do graduate work in philosophy with the hope of eventually teaching philosophy needs to be aware that there are currently many more candidates for positions in teaching philosophy than there are positions available.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Two of the *Graduate Bulletin*. To be considered for admission to the graduate program in the Department of Philosophy with classified status, an applicant must fulfill the following requirements:

1. All students must hold a baccalaureate degree from an accredited U.S. institution or equivalent degree. The degree should be in the field of philosophy.
2. A minimum grade point average of 3.3 in upper division work in philosophy with an overall minimum grade point average of 3.0 is required.

Conditional admittance: Unusually promising students who do not meet all the above requirements may be accepted into the program with conditional status. Students who are accepted conditionally with 12-23 units of upper division philosophy will be required to take additional units (beyond the 30 units required for the M.A. degree) to meet the minimum qualification of having earned 24 units of upper division philosophy before achieving classified standing. Applicants who have an overall grade point average of 2.85-2.99 and an average of 3.3 in upper division philosophy may be considered for conditional admittance.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and the Department of Philosophy.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Philosophy

The following admissions materials must be submitted electronically:

1. Letter describing the applicant's reasons for pursuing graduate study in philosophy;
2. Sample of the applicant's writing (about 2,000 words) that provides evidence of a capacity for careful analytic thought;
3. Two letters of recommendation;
4. Curriculum vitae or resume.

For information regarding the admissions process, visit the department website at <http://philosophy.sdsu.edu>.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as stated in Part Four of the *Graduate Bulletin*.

In order to advance to candidacy in the philosophy M.A. program, every graduate student must demonstrate reading proficiency in a language other than English. Languages may include both the formal languages of logic and mathematics and natural languages other than English (as appropriate to one's studies in philosophy). Students shall consult with the graduate adviser to determine which language is appropriate. Proficiency in a language shall be demonstrated by earning a grade of B or more in either (a) no fewer than two lower division courses in that language or (b) at least one upper division course in that language. All grades must be earned either while the student is a graduate student in the philosophy department or at an accredited college within five years prior to admission to the graduate program in philosophy. Appropriate examinations may be given when available.

To be advanced to candidacy, a student must have achieved and maintain an overall grade point average of 3.3.

Specific Requirements for the Master of Arts Degree

(Major Code: 15091) (SIMS Code: 115301)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of the *Graduate Bulletin*, the student must complete a program of 30 units of graduate coursework (500-799) selected with the approval of the graduate adviser. Students must complete a minimum of 24 units from courses in philosophy. The 24 units shall include Philosophy 521, 799A, and a minimum of 12 units in 600-level courses.

At the beginning of every fall semester, every new graduate student is expected to attend an orientation designed to familiarize students with the program and to help them to get to know the faculty and other students in the program.

All courses taken to satisfy the master's degree requirements must be taken for a letter grade when this option is available. Graduate students must maintain at least a 3.0 grade point average in graduate courses taken in the degree program and may not advance to candidacy with less than a 3.3 grade point average.

Grades of C or better for graduate courses are accepted for graduate credit. A grade point average below 3.0 at any time during a graduate student's studies is considered unsatisfactory and will result in the student's being placed on academic probation for the following semester. Students who are still achieving a grade point average below 3.0 at the end of the probationary period are subject to immediate dismissal from the program.

To be eligible to enroll in Philosophy 799A, a student must be advanced to candidacy. Each student will arrange for a committee of no less than three tenured/tenure track SDSU faculty members (two of these necessarily must be from the Philosophy Department; one of the three must be from outside the Philosophy Department). One faculty member from the Philosophy Department will serve as the chair/director of the thesis.

Courses Acceptable for Master's Degree Program in Philosophy (PHIL)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

PHIL 505. Nineteenth-Century European Philosophy (3)

Prerequisite: Upper division or graduate standing.

Major European philosophers of the nineteenth century. May include Hegel, Kierkegaard, Marx, Mill, Nietzsche, and Schopenhauer. (Formerly numbered Philosophy 414.)

PHIL 506. Twentieth-Century Continental Philosophy (3)

Prerequisite: Upper division or graduate standing.

Major figures and movements in European philosophy from Husserl to the present.

PHIL 508. Existentialism (3)

Prerequisite: Upper division or graduate standing.

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 509. Theory of Ethics (3)

Prerequisite: Upper division or graduate standing.

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. (Formerly numbered Philosophy 528.)

PHIL 510. Philosophy of Law (3)

Prerequisite: Upper division or graduate standing.

Philosophical and ethical investigation into the nature of law, rights, liberty, responsibility, and punishment.

PHIL 512. Political Philosophy (3)

Prerequisite: Upper division or graduate standing.

Selected aspects of the political structures within which we live, such as law, power, sovereignty, justice, liberty, welfare.

PHIL 514. Philosophy of Art (3)

Prerequisite: Upper division or graduate standing.

The nature of aesthetic experience. Principal Western theories of art in relation to actual artistic production and to the function of art in society. (Formerly numbered Philosophy 542.)

PHIL 515. Philosophy of Film (3)

Prerequisite: Upper division or graduate standing.

Investigation into metaphysical, aesthetic, and epistemological dimensions of film. Narration, authorship, cognitive and emotional engagement, social and philosophical ramifications.

PHIL 516. Non-Western Aesthetics (3)

Prerequisite: Upper division or graduate standing.

How non-Western cultures developed aesthetic theories complementing, challenging, or expanding more familiar Amero-eurocentric theories. Historical and contemporary works representing a spectrum of non-Western philosophies.

PHIL 521. Deductive Logic (3)

Prerequisite: Philosophy 120.

Principles of inference for symbolic deductive systems; connectives, quantifiers, relations and sets. Interpretations of deductive systems in mathematics, science and ordinary language. Not open to students with credit in Mathematics 523.

PHIL 523. Theory of Knowledge (3)

Prerequisite: Upper division or graduate standing.

Philosophical analysis of knowledge, including conceptions of belief, justification, and truth.

PHIL 530. Metaphysics (3)

Prerequisite: Upper division or graduate standing.

Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism. (Formerly numbered Philosophy 525.)

PHIL 534. Philosophy of Language (3)

Prerequisite: Upper division or graduate standing.

An introduction to theories of meaning for natural languages and formal systems; concepts of truth, synonymy and analyticity; related epistemological and ontological problems. (Formerly numbered Philosophy 531.)

PHIL 535. Philosophy of Religion (3)

Prerequisite: Upper division or graduate standing.

Philosophical analysis of the nature and existence of God.

PHIL 536. Philosophy of Mind (3)

Prerequisite: Upper division or graduate standing.

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: Upper division or graduate standing.

The basic concepts and methods underlying contemporary scientific thought. Contributions of the special sciences to a view of the universe as a whole.

PHIL 565. Asian Philosophies (3)

Prerequisite: Upper division or graduate standing.

Dimensions of Asian philosophies, past and present. Encounter between Buddhism and post-modern science, contemporary Asian philosophers ("global gurus") and their impact on non-Asian cultures, enigmatic notion of emptiness (sunya, wu). See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

PHIL 575. A Major Philosopher (3)

Prerequisite: Upper division or graduate standing.

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 576. A Major Philosophical Tradition (3)

Prerequisite: Upper division or graduate standing.

Focused study of a major philosophical tradition (e.g., Platonism, Confucianism, positivism). 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 577. A Major Philosophical Problem (3)

Prerequisite: Upper division or graduate standing.

Focused study of a major philosophical problem (e.g., the problem of evil, the problem of other minds, the existence of God). 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 578. Philosophical Methods (3)

Prerequisite: Upper division or graduate standing.

Focused study of major philosophical methods (e.g., uncertain inferences and non-bivalent logics, phenomenological method, deconstruction). 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.

Philosophy

PHIL 596. Selected Topics (3)

Prerequisite: Upper division or graduate standing.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

PHIL 599. Special Study (1-3)

Prerequisite: Upper division or graduate standing.

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

PHIL 600. Seminar in the History of Philosophy (3)

Prerequisite: Graduate standing in philosophy.

A major philosopher, school, or problem. Their historical roots and subsequent historical significance. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit 12 units applicable to a master's degree.

PHIL 610. Seminar in Philosophical Problems: Values (3)

Prerequisite: Graduate standing in philosophy.

Problems in such fields as ethics, politics, aesthetics. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit 12 units applicable to a master's degree.

PHIL 620. Seminar in Philosophical Problems: Knowledge and Reality (3)

Prerequisite: Graduate standing in philosophy.

A problem or group of problems in metaphysics, epistemology and logic. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit 12 units applicable to a master's degree.

PHIL 630. Seminar in Current Philosophical Issues (3)

Prerequisite: Graduate standing in philosophy.

Problems in current philosophical publications. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit 12 units applicable to a master's degree.

PHIL 650. Seminar in Teaching Philosophy (3)

Prerequisite: Graduate standing in philosophy.

Critical thinking and writing skills to teach philosophy. Syllabus construction, teaching techniques, assessment, and outcomes measurement. (Formerly numbered Philosophy 701.)

PHIL 696. Seminar in Selected Topics (3)

Prerequisite: Graduate standing in philosophy.

Intensive study in specific areas of philosophy. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

PHIL 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Twelve upper division units in philosophy and consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

PHIL 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

PHIL 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

PHIL 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisites: Completion or concurrent enrollment in degree program courses. Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Physical Education

Refer to "Exercise Physiology" and "Kinesiology" in this section of the bulletin.

Physical Therapy

IN THE SCHOOL OF EXERCISE AND NUTRITIONAL SCIENCES
IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Exercise and Nutritional Sciences 141
TELEPHONE: 619-594-0566 / FAX: 619-594-6553
E-MAIL: dpt@mail.sdsu.edu
WEBSITE: <https://ens.sdsu.edu>

Faculty

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Michael D. Rosenthal, D.Sc., M.P.T., Assistant Professor of Exercise and Nutritional Sciences

Doctoral Program

General Information

The San Diego State University Doctor of Physical Therapy (DPT) program is designed to educate clinical practitioners prepared for autonomous practice in physical therapy, and to be experts in the examination, evaluation, and intervention of movement dysfunction. Attention to physical therapy services to all ages and diverse populations, the DPT program allows qualified students to prepare as primary care physical therapists capable of practicing autonomously in a variety of environments. Students will be prepared to continue special areas of study to qualify for certification as clinical specialty practitioners. This is in support of the professional commitment as physical therapists providing quality services to the citizens of California and the San Diego region.

Program objectives of the DPT:

- Create leaders in collaborative interdisciplinary teams to influence changes in practice that ensures the delivery of a holistic approach to care;
- Increase the number of physical therapists who are prepared to implement advanced practice physical therapy roles according to national standards for advanced practice and/or executive leadership in healthcare organizations and/or independent practice;
- Prepare graduates to evaluate and translate existing evidence as a foundation for a scientifically-based advanced practice;
- Prepare graduates to influence health care systems, lead policy initiatives, and clinical practice through dissemination of knowledge, skills, and leadership that will improve the physical health status and outcomes for populations, and advocate for changes that can transform how physical therapy practice is delivered;
- Produce graduates who are able to use physical therapy knowledge and innovations in technology and practice to provide safe, effective, appropriate, and culturally sensitive and competent physical therapy practice;
- Produce graduates who generate and disseminate physical therapy practice knowledge to improve clinical outcomes and to stimulate the use of research in practice.

The Doctor of Physical Therapy (DPT) is a three-year program. The first two years are didactic instruction while the third year consists primarily of clinical experiences. The DPT is the entry-level degree.

Admission to the D.P.T. Program

In addition to satisfying the requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin, the student seeking admission must possess an undergraduate degree earned at an institution accredited by a regional accrediting association and the following:

- One year (or two semesters) of laboratory and lecture-based human anatomy and physiology courses completed within five years of the application to the DPT program;
- One year (or two semesters) of laboratory and lecture-based general and upper division biology;
- One year (or two semesters) of laboratory and lecture-based general inorganic chemistry;
- One year (or two semesters) of laboratory and lecture-based college level physics;
- One course each of general psychology and upper division psychology (preferably abnormal, child developmental, or lifespan);
- One statistics course;
- One English writing course (English composition or an upper-division writing course);
- No more than two prerequisite courses can be taken during the spring semester (or quarter) prior to commencing the program. In addition, all prerequisite coursework must be completed with a GPA of at least 3.00.

Admission criteria for a preferred applicant to the SDSU DPT program will provide evidence of and demonstrate:

- A grade point average (GPA) commensurate with graduate school admission requirements;
- A recommended minimum 3.00 overall GPA with at least a 3.00 GPA in all upper division and any graduate courses combined;
- The applicant was in good standing at the last institution of higher education attended.
- Additional evidence considered in the admission process shall include but not be limited to:
- Graduate Record Examination (GRE) with a minimum score of 300 (verbal and quantitative combined) and a minimum score of 4.0 (analytical writing). Scores from the previous five years will be acceptable as valid;
- Three confidential letters of recommendation from professionals attesting to the ability, scholarship, and aptitude of the candidate for a rigorous full-time DPT program. At least one letter must be from a licensed physical therapist whom the applicant has had a professional association and can appropriately evaluate the applicant's potential as a student in the physical therapy program. One letter must be from a professor for a course which the applicant completed. The third letter must be from a licensed physical therapist or professor as described above;
- Demonstrated evidence of exposure to the field and an appreciation of the breadth, depth, and scope of practice. This can be accomplished through either volunteer or paid work experience in a physical therapy setting. A minimum of 100 observation hours must be completed under the supervision of a licensed physical therapist. Observation in two or more different types of physical therapy settings (e.g. pediatric and orthopedic, rather than two different orthopedic settings) is highly recommended;
- A written statement of purpose reflecting understanding of the challenges facing DPT practice and willingness to work with diverse clients in a variety of physical therapy settings;

Physical Therapy

- A written statement from the applicant outlining their professional goals and reasons for selecting physical therapy as a career.

The Doctor of Physical Therapy program at San Diego State University does not participate in the Physical Therapist Centralized Application Service (PTCAS). Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the SDSU supplemental program application website.

For information regarding the admissions process, visit the department website at <https://ens.sdsu.edu>.

Graduate Admissions

The following materials must be submitted directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Doctor of Physical Therapy

The following admissions materials* must be completed or submitted electronically via the supplemental program application website by the December application deadline for admission to the fall semester:

1. DPT supplemental application form;
2. DPT prerequisite course checklist;
3. DPT applicant volunteer and work experience form;
4. DPT program disclosure form;
5. Statement of professional goals;
6. Statement of contemporary issues in physical therapy;
7. Curriculum vitae or resume;
8. Video (1-3 minutes) addressing an issue posed by the SDSU DPT program;
9. Names and e-mail address of three references who will be invited to complete a recommendation for the applicant electronically.

*Forms for the materials are available on the DPT program website: <https://ens.sdsu.edu/dpt/prospective/application.process>.

Advancement to Candidacy

All students must (1) Meet the general requirements for advancement to candidacy as required by San Diego State University; and (2) Successfully complete all required courses and the comprehensive examination for the first two years of study constitute the qualifying process.

Specific Requirements for the Doctor of Physical Therapy Degree (Major Code: 12122) (SIMS Code: 556529)

The Doctor of Physical Therapy (DPT) is a professional and not a research degree. Students in the program will be involved in evidence-based practice/translational research projects as part of coursework and clinical internship. Students are expected to

complete the program in three years while attending full-time as there is no part-time program. The number of units for the DPT program of study is 121 units.

Summer I (7 Units)

DPT 700	Foundations of Physical Therapy Evaluation I.....	3
DPT 725/ BIOL 725	Clinical Anatomy I.....	4

Fall Semester I (15 Units)

DPT 710	Foundations of Physical Therapy Evaluation II.....	4
DPT 726/ BIOL 726	Clinical Anatomy II.....	4
DPT 750	Concepts in Physiology, Pathophysiology, and Pharmacology.....	4
DPT 881	Evidence-Based Practice I: Principles and Clinical Applications.....	3

Spring Semester I (18 Units)

DPT 760	Neurosciences.....	4
DPT 780	Therapeutic Modalities.....	3
DPT 782	Therapeutic Exercise.....	4
DPT 882	Evidence-Based Practice II: Research Applications.....	3
DPT 886	Functional Neuro-Biomechanical Relationships.....	4

Summer II (11 Units)

Session 1:

DPT 857	Prosthetics and Orthotics.....	2
DPT 880	Differential Diagnosis in Physical Therapy.....	3
DPT 887	Professional Development in Physical Therapy Practice.....	3

Session 2:

DPT 801	Clerkship.....	3 (Cr/NC)
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Fall Semester II (18 Units)

DPT 802	Life Cycle I.....	2
DPT 820	Musculoskeletal Therapeutics I.....	4
DPT 830	Cardiopulmonary Therapeutics.....	4
DPT 835	Neurophysiological Therapeutics I.....	4
DPT 885	Evidence-Based Practice III: Case Presentations.....	3
DPT 897	Doctoral Research.....	1 (Cr/NC)

Spring Semester II (19 Units)

DPT 803	Life Cycle II.....	2
DPT 821	Musculoskeletal Therapeutics II.....	4
DPT 836	Neurophysiological Therapeutics II.....	3
DPT 875	Medical Therapeutics in Physical Therapy Practice.....	3
DPT 878	Psychosocial Aspects of Rehabilitation.....	3
DPT 888	Evidence-Based Practice IV: Advanced Clinical Reasoning.....	3
DPT 897	Doctoral Research.....	1 (Cr/NC)

Summer III (9 Units)

DPT 822	Interventions in Musculoskeletal Therapeutics.....	3
DPT 837	Interventions in Neuromuscular Therapeutics.....	3
DPT 868	Physical Therapy Organization and Administration.....	3

Fall Semester III (12 Units)

DPT 889	Doctoral Project.....	2 (Cr/NC)
DPT 895	Clinical Internship.....	10 (Cr/NC)

Spring Semester III (12 Units)

DPT 889	Doctoral Project.....	2 (Cr/NC)
DPT 895	Clinical Internship.....	10 (Cr/NC)

Courses Acceptable for D.P.T. Degree Program in the School of Exercise and Nutritional Sciences (DPT)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

DPT 700. Foundations of Physical Therapy Evaluation I (3)

One lecture and six hours of laboratory.

Prerequisite: Admission to the DPT program.

Psychomotor skills in observation and evaluation of movement.

DPT 710. Foundations of Physical Therapy Evaluation II (4)

Two lectures and six hours of laboratory.

Prerequisites: Doctor of Physical Therapy 700, 725 [or Biology 725], and admission to the DPT program.

Problem solving and psychomotor skills to perform general physical examination. Concepts, procedures, and techniques required to provide safe and effective patient care.

DPT 725. Clinical Anatomy I (4)

(Same course as Biology 725)

Three lectures and three hours of laboratory.

Prerequisite: Admission to the DPT program.

Applied anatomy of upper and lower extremities of the human body; joint anatomy and mechanics, anatomical structures to produce articular movement to include muscles, arterial, peripheral nervous systems, and articular and extremity movement patterns.

DPT 726. Clinical Anatomy II (4)

(Same course as Biology 726)

Three lectures and three hours of laboratory.

Prerequisite: Doctor of Physical Therapy 725 [or Biology 725].

Axial portion of the human body; biomechanics of the spinal column to include head and neck, thorax, related viscera, and abdomino-pelvic region.

DPT 750. Concepts in Physiology, Pathophysiology, and Pharmacology (4)

Prerequisite: Admission to the DPT program or master's degree program in kinesiology.

Normal physiology, diseases, disorders, and injuries. Pathological processes, specific organ system pathology, multisystem pathology, and pharmacological concepts.

DPT 760. Neurosciences (4)

Prerequisites: Doctor of Physical Therapy 725 [or Biology 725] and 750.

Anatomy and physiology of central nervous system; substrates and processes of movement.

DPT 780. Therapeutic Modalities (3)

One lecture and six hours of laboratory.

Prerequisite: Admission to the DPT program.

Anatomy, physiology, pathology, mutability of human biological tissues in the rehabilitation process.

DPT 782. Therapeutic Exercise (4)

Two lectures and six hours of laboratory.

Prerequisites: Doctor of Physical Therapy 710, 725 [or Biology 725], 750, 780, 881.

Therapeutic exercise as it applies to clinical practice of physical therapy.

DOCTORAL COURSES

DPT 801. Clerkship (3) Cr/NC

Prerequisites: Successful completion of all coursework up to Doctor of Physical Therapy 801, Clerkship.

Cognitive, psychomotor, and affective skills of physical therapy practice in a clinical setting.

DPT 802. Life Cycle I (2)

Prerequisite: Doctor of Physical Therapy 801.

Age-related changes from young adulthood to senescence; analysis of resultant functional limitations.

DPT 803. Life Cycle II (2)

Prerequisite: Doctor of Physical Therapy 802.

Normal and delayed maturation processes from conception through adulthood; nervous, cardiovascular, and musculoskeletal systems.

DPT 820. Musculoskeletal Therapeutics I (4)

Two lectures and six hours of laboratory.

Prerequisite: Doctor of Physical Therapy 801.

Examination, diagnosis, and management of lower and upper extremities, and spinal musculoskeletal disorders.

DPT 821. Musculoskeletal Therapeutics II (4)

Three lectures and three hours of laboratory.

Prerequisite: Doctor of Physical Therapy 820.

Clinical principles and concepts for management of orthopedic, sports, and industrial injuries.

DPT 822. Interventions in Musculoskeletal Therapeutics (3)

Two lectures and three hours of laboratory.

Prerequisite: Doctor of Physical Therapy 821.

Analysis of interventions used to treat clients with dysfunctions of the musculoskeletal system.

DPT 830. Cardiopulmonary Therapeutics (4)

Three lectures and three hours of laboratory.

Prerequisite: Doctor of Physical Therapy 801.

Electrocardiography, exercise testing, and exercise prescription for patient populations suffering from acute or chronic illness.

DPT 835. Neurophysiological Therapeutics I (4)

Three lectures and three hours of laboratory.

Prerequisite: Doctor of Physical Therapy 801.

Neurological deficits in adults and children secondary to upper motor-neuron dysfunction.

DPT 836. Neurophysiological Therapeutics II (3)

Two lectures and three hours of laboratory.

Prerequisite: Doctor of Physical Therapy 835.

Scientific theory pertaining to composite impairments of neurologic patients, with application of motor-control theory to neurorehabilitation.

DPT 837. Interventions in Neuromuscular Therapeutics (3)

One lecture and six hours of laboratory.

Prerequisite: Doctor of Physical Therapy 836.

Interventions used to treat clients with dysfunctions of the neuromuscular system.

DPT 857. Prosthetics and Orthotics (2)

Prerequisite: Doctor of Physical Therapy 886.

Design, fabrication, and fitting of orthotic and prosthetic devices.

DPT 868. Physical Therapy Organization and Administration (3)

Prerequisite: Doctor of Physical Therapy 801.

Designing, equipping, and staffing a physical therapy practice or department. Budget development, cost accounting, supervisory functions, evaluation techniques, and quality assurance. Business strategies and skills for practice setting. Local, national, economic, and political pressures on delivery of physical therapy services.

DPT 875. Medical Therapeutics in Physical Therapy Practice (3)

Prerequisite: Doctor of Physical Therapy 830.

Contemporary medical interventions for physical therapy practice.



DPT 878. Psychosocial Aspects of Rehabilitation (3)

Prerequisite: Admission to the DPT program.

Adjustment to physical disability and terminal illness. Development of communication and ethical decision-making skills.

DPT 880. Differential Diagnosis in Physical Therapy (3)

Prerequisites: Doctor of Physical Therapy 710, 725 [or Biology 725], 750.

Musculoskeletal conditions, medical pathological problems, and/or co-morbidities affecting clinical decision-making.

DPT 881. Evidence-Based Practice I: Principles and Clinical Applications (3)

Prerequisite: Admission to the DPT program.

Preparation as a consumer of the professional literature in physical therapy.

DPT 882. Evidence-Based Practice II: Research Applications (3)

Prerequisite: Doctor of Physical Therapy 881.

Use of evidence in current physical therapy practice.

DPT 885. Evidence-Based Practice III: Case Presentations (3)

Prerequisite: Doctor of Physical Therapy 801.

Patient case and analysis of evidence from clinical interactions between student and client.

DPT 886. Functional Neuro-Biomechanical Relationships (4)

Prerequisite: Admission to the DPT program or master's degree program in kinesiology.

Structures of the musculoskeletal system and individual functional regions. Forces sustained in normal and pathological conditions.

DPT 887. Professional Development in Physical Therapy Practice (3)

Prerequisite: Admission to the DPT program.

Professional physical therapy at individual and societal levels.

DPT 888. Evidence-Based Practice IV: Advanced Clinical Reasoning (3)

Prerequisites: Doctor of Physical Therapy 882 and 885.

Integrate evidence, patient values, and clinical expertise to critically analyze clinical decision making for complex patient cases across broad range of practice settings.

DPT 889. Doctoral Project (2-2) Cr/NC

Prerequisites: Admission to the DPT program and completion of all prior DPT coursework.

Final paper or project on an in-depth clinical or research problem related to the physical therapy profession, presented to a professional audience.

DPT 895. Clinical Internship (10-10) Cr/NC

Prerequisite: Successful completion of all DPT coursework.

Clinical internship in physical therapy.

DPT 897. Doctoral Research (1) Cr/NC

Prerequisite: Admission to the DPT program.

Investigation to the general field of the doctoral project. Maximum credit two units applicable to the doctoral degree.

Physics

IN THE COLLEGE OF SCIENCES

OFFICE: Physics 131

TELEPHONE: 619-594-6240 / **FAX:** 619-594-5485

E-MAIL: physicsinfo@sdsu.edu

WEBSITE: <http://www.physics.sdsu.edu>

Faculty

Usha S. Sinha, Ph.D., Professor of Physics, Chair of Department
Fridolin Weber, Ph.D., Albert W. Johnson Distinguished Professor
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Jeffrey A. Davis, Ph.D., Professor of Physics,
Director of Electro-Optics Program

Calvin W. Johnson, Ph.D., Professor of Physics

Alan R. Sweedler, Ph.D., Professor of Physics, Director of Center
for Energy Studies, and Associate Vice President for Academic
Affairs, International Programs

Milton S. Torikachvili, Ph.D., Professor of Physics

Matthew E. Anderson, Ph.D., Associate Professor of Physics
[Senate Distinguished Professor]

Arlette R.C. Baljon, Ph.D., Associate Professor of Physics

Mauro Tambasco, Ph.D., Associate Professor of Physics

Lyuba Pavlovna Kuznetsova, Ph.D., Assistant Professor of Physics

Kenneth M. Nollett, Ph.D., Assistant Professor of Physics

Kyle Sundqvist, Ph.D., Assistant Professor of Physics

Associateships

Graduate teaching associateships in physics are available to a limited number of qualified students. Application blanks and additional information may be secured from the chair of the department.

General Information

The Department of Physics offers graduate study leading to the Master of Arts degree in physics, the Master of Science degree in physics, and the Master of Science degree in medical physics.

The Master of Arts degree emphasizes broad training and intensive coursework. This is a non-thesis program designed to lead the student to a comprehensive final examination. Specific courses, in both pure and applied physics, are chosen to complement the background of the individual student and achieve the desired educational goals. The program is designed to provide students with university-level teaching experience and access to community college teaching positions.

The Master of Science degree emphasizes research experience in a chosen specialty. It is designed to augment the student's undergraduate training with a core curriculum of advanced courses, then followed by a period of research and preparation of a thesis. Thesis topics are encouraged in both pure and applied areas of physics. The program is designed to provide students with university-level teaching experience and access to community college teaching positions.

Modern experimental laboratories are available for student and faculty research in the areas of modern optics, holography, optical properties of solids, laser physics, solid-state physics, nuclear magnetic resonance, electron paramagnetic resonance, atomic physics, solar energy, nuclear, medical and health physics, and image processing. Theoretical programs are available in condensed matter physics, electricity and magnetism, laser physics, nuclear and astrophysics.

The Master of Science degree in medical physics is designed to train physicists in the use of radioactive materials and radiation-producing devices such as those used in hospitals and related medical facilities, colleges and universities, industry, public health services, nuclear power installations, the military, the Department of Energy, the Environmental Protection Agency, and the Nuclear Regulatory Commission. The program emphasizes techniques of radiation dosimetry, and instrumentation in addition to the fundamental physics of radiation production and protection.

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Physics.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Physics

Master of Arts Degree in Physics

Master of Science Degrees in Physics

Master of Science Degree in Medical Physics

The following materials should be mailed or delivered to:

Department of Physics

(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1233

1. Letters of reference (two or three);
2. Application for teaching associate position or graduate assistantship (if desired).

Master of Arts Degree and Master of Science Degree in Physics

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In addition, the undergraduate preparation in physics must have substantially satisfied the undergraduate requirements for the bachelor's degree in physics. (Refer to the General Catalog for a description of these majors.) If the student's undergraduate preparation is deficient, he/she will be required to take courses for the removal of the deficiency. These courses are in addition to the minimum of 30 units for the master's degree.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as stated in Part Four of this bulletin, and satisfactory completion of Physics 604, 606, 608, and 610A.

Specific Requirements for the Master of Arts Degree in Physics

(Major Code: 19021) (SIMS Code: 777702)

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin. The student's graduate program must include Physics 604, 606, 608, and 610A. Eighteen additional units of 500-, 600- or 700-numbered electives must be selected with the approval of the Physics department graduate adviser. The Master of Arts degree in physics requires the completion of Plan B, a comprehensive written examination.

Specific Requirements for the Master of Science Degree in Physics

(Major Code: 19021) (SIMS Code: 777701)

In addition to meeting the requirements for classified graduate standing, the student must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin.

The student must complete a graduate program to include Physics 604, 606, 608, 610A, 797 (3 units) and 799A. Twelve additional units of 500-, 600-, or 700-numbered electives must be selected with the approval of the Physics department graduate adviser. The student is required to pass a final oral examination on the thesis.

Master of Science Degree in Medical Physics

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the Division of Graduate Affairs with classified graduate standing, as described in Part Two of this bulletin under Admission to the Division of Graduate Affairs. In addition, the undergraduate preparation in biology, chemistry, mathematics, and physics must have substantially satisfied the undergraduate requirements for a baccalaureate degree in the life sciences or the physical sciences so that satisfactory progress can be made toward the master's degree. If the student's undergraduate preparation is deficient, he will be required to take courses for the removal of the deficiency. These courses are in addition to the minimum of 30 units for the master's degree.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree in Medical Physics

(Major Code: 12251) (SIMS Code: 77769)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must meet the following requirements:

1. The student must complete a graduate program to include Physics 560, 565, 567, 670A, 670B. Fifteen additional units of 500-, 600-, or 700-numbered electives must be selected with the approval of the Physics department graduate adviser (maximum six units at the 500-level).
2. The thesis option (Plan A) requires the approval of the graduate adviser. Students in Plan A must include Physics 797 and Physics 799A in the 30-unit program, and are required to pass a final oral examination on the thesis.

Students in Plan B (non-thesis option) are required to pass a comprehensive written examination.

Residency Training in Radiation Therapy Physics Certificate

(Offered through the College of Extended Studies)

(SIMS Code: 777740)

The advanced certificate in residency training in radiation therapy physics provides students training in clinical and didactic radiation oncology physics to attain a level of competence that they can take on the responsibilities of a radiation oncology physicist in a clinic. Students will train in the clinic in dosimetry, brachytherapy, machine quality assurance (QA) and calibration, treatment planning and dose calculations, radiation safety, imaging, and special procedures (stereotactic radiosurgery, total skin electron treatment, etc.). Training will also include acceptance testing, commissioning, quality assurance of various major clinic systems (linac, brachytherapy, treatment planning systems, etc.), and radiation safety/regulatory issues.

A student wishing to be admitted to this certificate program must meet the General Admission Requirements as described in Part Two of this bulletin. Students must meet the professional, personal, scholastic, and other standards prescribed by the appropriate department and the Graduate Council. The admission minimum requirement is a master's degree in physics or medical physics with a 3.5 GPA or better.

Required courses (36 units): Physics 701, 703, 705, and 707.

For more information, contact the physics department at <http://www.physics.sdsu.edu>.

Courses Acceptable for Master's Degree Programs in Physics (PHYS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

PHYS 532. Condensed Matter Physics (3)

Prerequisite: Physics 410 with a grade of C (2.0) or better; or graduate standing.

Elastic, electric, magnetic, optical, and thermal properties of solids. Energy band theory of solids and practical application with metals and semiconductors.

PHYS 538. Polymer Science (3)

(Same course as Chemistry 538)

Prerequisites: Chemistry 200 or 202; and credit or concurrent registration in Chemistry 410B or Physics 360 or Mechanical Engineering 350.

Structure, synthesis, physical properties, and utilities of polymers and biopolymers.

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 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 565. Radiobiology and Radiation Safety (3)

Prerequisites: Credit or concurrent registration in Physics 560 and consent of instructor.

Effects of ionizing radiation on physical and biological systems in medical imaging and radiation therapy. Associated radiation safety precautions.

PHYS 567. Nuclear Medicine Physics (3)

Prerequisite: Physics 560.

Physical principles of nuclear medicine and operating principles of nuclear medicine instrumentation. Radionuclide production, dose calibrators, well counters, gamma cameras, SPECT, PET, image quality, tomographic reconstruction, and image processing.

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; 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES**PHYS 604. Electromagnetic Theory (3)**

Prerequisite: Physics 400B.

Electrostatics, magnetic induction, and magnetostatics, Maxwell's equations, electromagnetic waves and radiation, fields in macroscopic media, special relativity.

PHYS 606. Statistical Mechanics (3)

Prerequisites: Physics 360, 410, 608.

Statistical basis of thermodynamics. Microcanonical, canonical, and grand canonical ensembles. Ideal Bose and Fermi systems. Interacting systems. Phase transitions.

PHYS 608. Classical Mechanics (3)

Prerequisites: Physics 350 and Mathematics 342B.

Vector and tensor methods, motion of rigid bodies, vibration, coupled circuits, Lagrange's and Hamilton's equations, principle of least action.

PHYS 610A. Quantum Mechanics (3-3)

Prerequisite: Physics 410.

Physical and mathematical basis of quantum mechanics. Wave mechanics and the Schrodinger Equation, matrices and Hilbert space, angular momentum and spin, atomic structure, bound-state perturbation theory, many particle systems, transition rates and time-dependent perturbation theory, scattering, and relativistic quantum mechanics.

PHYS 670A-670B. Medical Physics (3-3)

Prerequisites: Physics 560 and 561.

Radiological physics, dosimetry, imaging, and radiation protection in medical environments including diagnostic radiology, nuclear medicine, and radiation oncology.

PHYS 672A. Radiation Therapy Physics Laboratory (3)

One lecture and six hours of laboratory.

Prerequisite: Physics 670A.

Skills to perform radiation therapy physics procedures.

PHYS 672B. Diagnostic Imaging Laboratory (3)

One lecture and six hours of laboratory.

Prerequisite: Physics 670B.

Skills to perform quality assurance and acceptance testing on radiological equipment in a clinical setting.

PHYS 674. Radiation Treatment Planning (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 335.

Fundamental and practical concepts in radiation treatment planning. Hands on experience in clinical treatment planning for external beam radiotherapy.

PHYS 680. Magnetic Resonance Imaging (3)

Prerequisites: Physics 670B or Mathematics 342A and Physics 354.

Nuclear magnetic resonance, relaxation theory, Fourier transform MR imaging physics, imaging sequences, optimization of signal and contrast, special imaging sequences to include MR angiography, functional MRI, diffusion and perfusion MRI, MR hardware and configuration.

PHYS 690. Medical Imaging Processing (3)

Two lectures and three hours of laboratory.

Prerequisite: Physics 670B.

Digital image processing to include medical image formats, image enhancement, restoration, registration, segmentation, representation, and programming.

PHYS 696. Advanced Topics in Physics (1-3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of physics. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

PHYS 701. Clinical Rotations I (9) Cr/NC

(Offered only in the College of Extended Studies)

Prerequisites: Physics 564, 567, 672A, 672B.

On-site, full-day clinical training in external beam modalities (megavoltage photons, electrons, superficial x-rays) including equipment selection, radiation protection, acceptance/commissioning, calibration and quality assurance. Theoretical basis and use of the various detectors and dosimeters associated with external beam modalities.

PHYS 703. Clinical Rotations II (9) Cr/NC

(Offered only in the College of Extended Studies)

Prerequisite: Physics 701.

On-site, full-day clinical training in intensity modulated radiation therapy (IMRT) and brachytherapy. Training in quality assurance, calibration, inverse planning, IMRT delivery, and radiation safety. Radionuclides and sealed sources in brachytherapy, clinical applications of the sources, treatment planning, and quality assurance.



PHYS 705. Clinical Rotations III (9) Cr/NC
(Offered only in the College of Extended Studies)

Prerequisite: Physics 703.

On-site, full-day clinical training in the principles of computed tomography (CT) simulator, associated radiation protection/design considerations, CT protocols. Understand the physics of imaging modalities and perform quality assurance on CT, MRI, ultrasound and PET as related to radiation therapy. Train on picture archiving and communication systems.

PHYS 707. Clinical Rotations IV (9) Cr/NC
(Offered only in the College of Extended Studies)

Prerequisite: Physics 705.

On-site, full-day clinical training covering physics concepts and implementation of standard radiation treatment (RT) techniques for common cancer treatment sites, routine quality assurance associated with patient specific RT and planning, special RT procedures, quality assurance of RT planning systems, patient safety with respect to radiation therapy.

PHYS 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Research in one of the fields of physics. Maximum credit six units applicable to a master's degree.

PHYS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

PHYS 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis in physics for the master's degree.

PHYS 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

PHYS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Policy Studies in Language and Cross-Cultural Education

Refer to "Education: Dual Language and English Learner Education" in this section of the bulletin.

Political Science

IN THE COLLEGE OF ARTS AND LETTERS

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and Associate Dean of the College of Arts and Letters

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(Graduate Adviser)

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Kimberley Fletcher, Ph.D., Assistant Professor of Political Science

Cheryl M. O'Brien, Ph.D., Assistant Professor of Political Science

Kimberly A. Twist, Ph.D., Assistant Professor of Political Science

General Information

The political science graduate program emphasizes global diversity and the interdependence between American society and politics and other nations through its curriculum in the areas of international relations, comparative politics, American politics, and political theory and methods. The department offers courses that contribute to career development in various professions including teaching, research, and consulting. Students from nations throughout the world, students in other disciplines and majors, and students from diverse social and cultural backgrounds enroll in political science graduate courses.

This graduate program provides core courses and programs of study for three distinctive groups of students: (1) Academic career students intending to enter Ph.D. programs and to pursue careers as university or college faculty or as professional researchers. (2) Community career students pursuing a master's degree to obtain or enhance current employment including teaching, work in public agencies, business, military, law enforcement, and holding elected or appointed office. (3) Self-development students, often mature adults, pursuing a master's degree because they enjoy studying political science and politics. These students contribute breadth and sophistication of understanding and a wealth of diverse experience to graduate seminars.

Because of the diversity of student interests, the department offers three specializations in the M. A. program. The general political science specialization provides the fundamental theoretical and analytical skills for students seeking to expand their knowledge of politics as well as those intending to pursue doctoral degrees in political science or placement in an academic setting. The specialization in public policy prepares students for further advanced study in that field and provides the skills necessary for placement in careers in both the public and private sectors. It covers such areas of American public policy as immigration policy, urban policy, environmental policy, or civil rights. The public policy internship program places students in public and private sector positions that enhance applied and theoretical knowledge. The specialization in international relations/comparative politics supplies expertise to graduate students planning to obtain a Ph.D. degree in this field or intending to seek employment with an overseas focus.

One of the strengths of the advanced degree program in political science is the depth and breadth of resources available to the students. The department actively cooperates with the interdisciplinary degree programs in Latin American Studies and Asian Studies and shares faculty and expertise with the program in International Security and Conflict Resolution (ISCOR). The Social Science Research Laboratory (SSRL) provides technical support for students wishing to pursue quantitative or survey research. The department also holds an associate membership in the Inter-University Consortium for Political and Social Research (ICPSR) that provides students with ready access to national and international databases. The faculty includes teacher/scholars who are experts in their respective fields of study and who remain professionally active in and out of the classroom. The department is committed to ensuring that financial resources are made available to graduate students in the form of scholarships, research and graduate assistantships, and graduate teaching assistantships.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. In addition, students seeking the Master of Arts degree in political science must attain a satisfactory score on the GRE General Test (minimum of 153 on the verbal portion of the test and a minimum of 153 on the quantitative portion). The department also requires that applicants submit two letters of recommendation from individuals familiar with the academic work or potential of the applicant along with a statement of purpose written by the applicant. Students should have completed 30 semester units of coursework in the social sciences, including at least 12 upper division units in political science, as approved by the department. The grade point average required for admission is 3.0 for the last 60 semester units of undergraduate work, a 3.0 grade point average in upper division courses in political science, and a 3.0 grade point average for all work taken in political science. An applicant who is deficient in any of these requirements may be considered for conditional admission. The application deadline for the fall semester is March 1.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Political Science.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Political Science

The following admissions materials must be submitted electronically:

1. Two letters of reference;
2. Statement of purpose;
3. Writing sample (optional).

For information regarding the admissions process, visit the department website at <http://politicalscience.sdsu.edu>.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as stated in Part Four of this bulletin. In addition, students must complete the Empirical Theory and Methods sequence by fulfilling one of the following options:

1. POL S 516 and 615.
2. POL S 615. Pass an examination in statistics at the graduate level.
3. POL S 615. Pass a course in statistics equivalent to POL S 516.
4. POL S 615. Pass an examination in a language other than one's native language and other than English at a level approved by the department.

Specific Requirements for the Master of Arts Degree

(Major Code: 22071) (SIMS Code: 115501)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student will complete a program of study of 30 units of upper division and graduate courses as approved by the departmental graduate adviser. The program must include a minimum of 24 units in political science selected from courses listed below as acceptable for master's degree programs. Political Science 516 and 615 and at least 18 units in 600- and 700-numbered courses, including Political Science 601, are required. Students who have previously completed Political Science 516 or 615, or the equivalent as determined by the graduate adviser, will enroll in such additional courses in political science as approved by the graduate adviser.

Students may choose either Plan A or Plan B as the culminating experience for the degree. Plan A requires the writing of a thesis and enrollment in Political Science 799A, Thesis. Plan B requires the completion of a comprehensive written and oral examination. In consultation with the graduate adviser, a student electing the Plan B option will form an examining committee consisting of a chairperson and two additional members from the political science faculty. The examination committee will prepare, administer, and grade the written examination testing the student's general knowledge in the program of study. The oral portion of the examination will follow the committee's review of the written examination.

Specific requirements for students selecting the general political science specialization (SIMS Code: 115501) are:

1. POL S 516 Statistics for Political Scientists3
(or equivalent)
AND
POL S 615 Seminar in Research Design and Analysis in Political Science.....3
2. POL S 601 Seminar in the Scope and Methods of Political Science3
3. Four graduate seminars chosen from among the following:
POL S 603 Seminar in Foundations of Public Policy3
POL S 605 Seminar in Political Theory.....3
POL S 620 Seminar in American National Government.....3
POL S 630 Seminar in Politics3
POL S 635 Seminar in Politics of Public Policy.....3
POL S 655 Seminar in General Comparative Political Systems.....3
POL S 658 Seminar in Post-Communist Political Systems.....3
POL S 661 Seminar in the Political Systems of the Developing Nations.....3

- POL S 667 Seminar in Latin American Political Systems3
POL S 675 Seminar in International Relations.....3
POL S 696 Seminar in Selected Topics in Political Science3

(with permission of the graduate adviser)

4. **Plan A:** Political Science 799A, Thesis, and six additional units of coursework at the 500-level or above that may include transfer courses or courses outside the department, with permission of the graduate adviser.

OR

5. **Plan B:** Comprehensive written and oral examination. One additional seminar chosen from those listed in item 3 above and six additional units coursework at the 500-level or above that may include transfer units or courses outside of the department, with permission of the graduate adviser.

Specific requirements for students selecting the specialization in public policy (SIMS Code: 115560) are:

1. POL S 516 Statistics for Political Scientists3
(or equivalent)

AND

2. POL S 615 Seminar in Research Design and Analysis in Political Science3
2. POL S 601 Seminar in the Scope and Methods of Political Science3
3. POL S 603 Seminar in Foundations of Public Policy3
4. POL S 796 Internship in Public Policy.....3
5. Two graduate seminars chosen from among the following:
POL S 620 Seminar in American National Government.....3
POL S 630 Seminar in Politics3
POL S 635 Seminar in Politics of Public Policy.....3
POL S 655 Seminar in General Comparative Political Systems3
POL S 696 Seminar in Selected Topics in Political Science3

(with permission of the graduate adviser)

6. **Plan A:** Political Science 799A, Thesis, and six additional units of coursework at the 500-level or above that may include transfer courses or courses outside the department, with permission of the graduate adviser.

OR

7. **Plan B:** Comprehensive written and oral examination. One additional seminar chosen from those listed in item 5 above and six additional units coursework at the 500-level or above that may include transfer units or courses outside of the department, with permission of the graduate adviser.

Specific requirements for students selecting the international relations/comparative politics specialization (SIMS Code: 115551) are:

1. POL S 516 Statistics for Political Scientists3
(or equivalent)

AND

2. POL S 615 Seminar in Research Design and Analysis in Political Science.....3
2. POL S 601 Seminar in the Scope and Method of Political Science3
3. POL S 655 Seminar in General Comparative Political Systems3
4. POL S 675 Seminar in International Relations.....3
5. Two graduate seminars chosen from among the following:
POL S 658 Seminar in Post-Communist Political Systems3
POL S 661 Seminar in the Political Systems of the Developing Nations3
POL S 667 Seminar in Latin American Political Systems3
POL S 696 Seminar in Selected Topics in Political Science3

(with permission of the graduate adviser)

6. **Plan A:** Political Science 799A, Thesis, and six additional units of coursework at the 500-level or above that may include transfer courses or courses outside the department, with permission of the graduate adviser.

OR

7. **Plan B:** Comprehensive written and oral examination. One additional seminar chosen from those listed in item 5 above and six additional units coursework at the 500-level or above that may include transfer units or courses outside of the department, with permission of the graduate adviser.

Courses Acceptable for Master's Degree Program in Political Science (POL S)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Field I: Political Theory

UPPER DIVISION COURSES

POL S 507. Marx and Marxism (3)

Prerequisite: Three units in political theory.

Marxism examined as an important tradition of political thought and as a political movement. Theoretical and political debates in the development of Marxism, including works by Marx, Engels, Luxemburg, Lenin, and Trotsky. Contemporary significance of Marxism.

POL S 510. 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

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.

POL S 541. Special Problems in Public Law (3)

Prerequisite: Three units selected from Political Science 346, 347A, 347B, or 348.

Issues of contemporary relevance in field of public law, examining legal, moral, and political implications.

Field III: Comparative Politics

UPPER DIVISION COURSES

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.

How political, social, and economic forces shape public policy in selected countries. Focus on policies related to minority and immigrant populations, environment, or poverty.

POL S 562. Religion and Politics in Comparative Perspective (3)

Prerequisite: Political Science 103.

Various types of relationships between contemporary states and religious institutions. Concepts and theories on religion and politics. Cases of state-religion interaction.

POL S 564. Political Ecology of Latin America (3)

Prerequisite: Upper division or graduate standing.

Ecology and politics of Latin America and the Caribbean. Environmental politics with related policy challenges of economic growth, equity, and social justice.

POL S 565. Nations and Nationalism (3)

Prerequisite: Upper division or graduate standing.

Debates surrounding origins, meaning and future of nationalism, and its most common embodiment, the nation-state form. Theoretical analyses of phenomenon and empirical case studies.

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 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

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. Politics of International Law (3)

Relationship of international law to politics. Fundamental principles of international law and normative theories of international law and politics. Historical and contemporary issues.

UPPER DIVISION COURSES

POL S 516. Statistics for Political Scientists (3)

Prerequisite: Political Science 201.

Does not fulfill undergraduate capstone major requirement. Basic concepts, theories, and methods that are utilized by political and other social scientists using statistics and microcomputers. Intermediate level introduction to statistical methods in political science.

POL S 596. Topics in Political Science (1-3)

Prerequisites: 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

POL S 601. Seminar in the Scope and Methods of Political Science (3)

The discipline of political science and systematic training in its methodology. Required of all applicants for advanced degrees in political science.

POL S 603. Seminar in Foundations of Public Policy (3)

Prerequisite: Graduate standing.

Theory and practice of the policy making process. Policy design, agenda setting, policy tools, and implementation. Examination of different methods used for policy analysis.

POL S 605. Seminar in Political Theory (3)

Maximum credit six units applicable to a master's degree.

POL S 615. Seminar in Research Design and Analysis in Political Science (3)

Prerequisite: Graduate Standing

Modeling and design of research projects. Theoretical understanding and logic of social science analysis. Hypothesis specification. Data collection, measurement, testing. (Formerly numbered Political Science 515.)

POL S 620. Seminar in American National Government (3)

Maximum credit six units applicable to a master's degree.

POL S 630. Seminar in Politics (3)

Prerequisite: Graduate standing.

Process by which individuals and groups make demands upon political decision makers; emphasis on the styles, structures, channels and consequences of interest articulation. Maximum credit six units applicable to a master's degree.

POL S 635. Seminar in Politics of Public Policy (3)

Prerequisite: Graduate standing.

How processes and outcomes of public policy relate to quality of democracy and distribution of power and resources. Debates about policy within frame of theories of justice. Focus on policy issues such as welfare, environment, housing, privatization, or others.

POL S 655. Seminar in General Comparative Political Systems (3)

Prerequisite: Graduate standing.

The field of comparative politics, including historical developments, major theoretical approaches, substantive concerns, uses and limitations of the comparative method, methodological innovations in study of foreign political systems.

POL S 658. Seminar in Post-Communist Political Systems (3)

Prerequisite: Graduate standing.

Nature of Communist political systems and processes of transition to post-communist forms of government. Possibilities for development of democratic institutions examined theoretically and empirically.

POL S 661. Seminar in the Political Systems of the Developing Nations (3)

Prerequisite: Graduate standing.

Theoretical analysis of political development, modernization and industrialization in the emerging nations. Search for valid generalizations about the non-Western political process. Political trends and developments in the developing nations.

POL S 667. Seminar in Latin American Political Systems (3)

Prerequisite: Graduate standing.

Political developments in selected Latin American nations. May be repeated with new content. Maximum credit six units applicable to a master's degree.

POL S 675. Seminar in International Relations (3)

Maximum credit six units applicable to a master's degree.

POL S 696. Seminar in Selected Topics in Political Science (3)

Prerequisite: Graduate standing.

Selected topics in political science. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

POL S 795. Problem Analysis (3)

Analytical treatment of selected problems in political science. Review of methods for investigation and reporting of data. Consideration of problems in preparation of project or thesis.

POL S 796. Internship in Public Policy (3)

Prerequisites: Political Science 601, 603, and eighteen units on official program for M.A. degree in political science with a specialization in public policy.

A 160-hour internship approved by instructor in public or private agency. Grade based on instructor's evaluation of supervisor's report, student consultation with instructor reviewing experience and required readings, and extensive paper relating internship experience to theories of public policy.

POL S 797. Research in Political Science (3) Cr/NC/RP

Prerequisite: Consent of the department chair.

Research in political theory, political parties, comparative government, international relations, public law or American government.

POL S 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

POL S 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

POL S 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

POL S 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Portuguese

Refer to "Spanish" in this section of the bulletin.

Psychology

IN THE COLLEGE OF SCIENCES

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WEBSITE: <http://www.psychology.sdsu.edu>

**Accredited by the American Psychological Association
(Clinical Psychology).**

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Margaret Friend, Ph.D., Professor of Psychology

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Phillip J. Holcomb, Ph.D., Professor of Psychology

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Co-Director of Clinical Training and of Doctoral Program

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Aaron J. Blashill, Ph.D., Assistant Professor of Psychology

Jonathan L. Helm, Ph.D., Assistant Professor of Psychology

Emily S. Kappenman, Ph.D., Assistant Professor of Psychology

Dustin Thoman, Ph.D., Assistant Professor of Psychology
(Associate Graduate Adviser)

Miguel T. Villodas, Ph.D., Assistant Professor of Psychology

Jillian L. Wiggins, Ph.D., Assistant Professor of Psychology

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships in psychology are available to a limited number of qualified students. Further information may be obtained from the master's program adviser, Department of Psychology.

General Information

A Master of Science degree program in applied psychology with a focus on industrial/organizational psychology or program evaluation is offered. A Master of Arts degree program with a specialization in physical and mental health research, developmental, behavioral and cognitive neuroscience, social/personality or learning and cognition is available for persons who expect subsequently to pursue a Ph.D. degree. For students currently enrolled in the Ph.D. program, an M.S. in clinical psychology is offered. In addition, the Department of Psychology, jointly with the Department of Psychiatry, University of California, San Diego, School of Medicine, offers an APA-accredited program of graduate study leading to the Doctor of Philosophy degree in clinical psychology with programs of study in behavioral medicine, neuropsychology, or experimental psychopathology. A scientist-practitioner training model serves as a guide for the experiences provided for doctoral students. It is expected that graduates of this program will be prepared to serve as scientists, innovators, and leaders in the field of clinical psychology. These programs can prepare students for teaching careers.

The doctoral program requires that students spend a minimum of five calendar years in study and research. In the first four years, doctoral students must complete their prescribed coursework satisfactorily as well as engage in research and a series of clinical practica. In the last year of the program all students must complete a 12-month APA-accredited clinical internship.

The department has a strong scientific research orientation, and emphasizes the master's degree as preparation for doctoral work. Students in all programs must take an advanced statistics/experimental design course sequence and produce an empirical research thesis.

The department awards approximately 30 master's degrees annually. A substantial proportion of the graduates who apply go on to enroll in doctoral work at well-known universities.

The clinical psychology faculty staff a Psychology Clinic for graduate clinical training and service to the metropolitan San Diego community.

Admission to Master's and Doctoral Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Psychology.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all post-secondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);

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3. English language or IELTS score, if the language of instruction was not English (for English language see: <http://www.ets.org>; for IELTS see <http://www.ielts.org>; SDSU institution code 4682).

Department of Psychology

Students applying to both the SDSU/UCSD joint doctoral program and the SDSU master's degree program are required to file only one university application and pay only one fee, which covers both programs. However, separate departmental applications, one for the master's program and one for the doctoral program, must be filed if the student wishes to be considered for both programs.

Master of Arts Degree in Psychology

Master of Science Degree in Psychology

For application information, please consult the program website: <http://www.psychology.sdsu.edu/admisReg.html>. All application materials are submitted electronically and include the following:

1. Departmental application;
2. Statement of purpose;
3. Completed application for an assistantship (if applicant is interested in this type of financial support);
4. Three letters of recommendation from persons familiar with the applicant's academic performance.

Ph.D. Degree in Clinical Psychology

For application information, please consult the program website: <http://clinpsyc.sdsu.edu>. All application materials are submitted electronically.

Section I. Master's Degree Programs

Admission to the Degree Curriculum

Admission to the Department of Psychology master's program involves a two-step process. Applicants must file one application with the university, and a separate application package with the Department of Psychology.

To be considered for admission to the Department of Psychology programs, applicants must satisfy particular department requirements. These requirements and instructions for completing the department application package are shown below. The department application form is available at <http://www.psychology.sdsu.edu>. Students are admitted to the master's programs in the fall semester only.

To qualify for admission to the master's programs in psychology, the student must have:

1. For the M.A. program: An undergraduate major in psychology (or coursework equivalent to the SDSU bachelor's degree) consisting of at least 24 upper division units with a grade point average of 3.0 or better. The major must include classes in general psychology, physiological psychology, and statistical methods. In addition, the student must have completed three of the following courses: abnormal psychology, cognitive psychology, developmental science, intermediate statistics, introduction to research methods, psychology of learning, psychology of personality, psychological testing and measurement, sensation and perception, or a psychology laboratory course. Six units of upper division psychology electives, which may be selected from the above list, are also required.

2. For the M.S. applied program: An undergraduate major in psychology (or coursework equivalent to the SDSU bachelor's degree) consisting of at least 24 upper division units with a grade point average of at least 3.0. The major must include classes in general psychology, statistical methods, psychological testing and measurement, intermediate statistics or research methods, and at least one class providing research experience in psychology. In addition, the student must have completed three of the following classes: developmental science, social psychology, abnormal psychology, psychology of personality, cognitive psychology, industrial/organizational psychology, experimental psychology with laboratory, psychology of learning, or sensation and perception. Six units of upper division psychology electives, which may be from the above list, are also required.
3. A grade point average of not less than 3.0 in all undergraduate coursework.
4. A minimum score above the 50th percentile rank on both the verbal and quantitative sections of the GRE General Test.
5. The GRE should be taken by November. The GRE Subject (Advanced Test in Psychology) is optional but highly recommended to non-psychology majors. The student should take this test as well as the GRE General Test in sufficient time so that the results will be available prior to the application deadline.

Meeting all of the indicated criteria does not guarantee admission to the program, since admission is also dependent on the facilities and resources available in the department.

For admission to the university, all students must satisfy the general requirements for classified graduate standing, as described in Part Two of this bulletin.

NOTE: Admission to the university does not guarantee admission to the Psychology Department.

Advancement to Candidacy

The student must satisfy the general requirements for advancement to candidacy as stated in Part Four of this bulletin. Having obtained three grades of C or lower in graduate courses automatically precludes advancement to candidacy.

In addition, students must have an approved thesis proposal prior to advancement to candidacy.

General Requirements for all Master's Degree Programs

In addition to meeting the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of at least 30 units (36-38 units for the Master of Science degree). Only classified graduate students are permitted to enroll in any 600-numbered (or higher) courses in psychology. The departmental graduate adviser must approve all programs of study except the Master of Science in clinical psychology. For the Master of Science in clinical psychology, departmental approval is provided by the program director of the joint doctoral program.

Psychology 670A-670B or 770A-770B are required in all master's degree programs in the Department of Psychology. In addition, for all degrees other than the Master of Science in clinical psychology, Psychology 600 (Research Orientation), Psychology 799A (Thesis), and an oral examination on the thesis are also required.

Specific Requirements for the Master of Arts Degree

(Major Code: 20011) (SIMS Code: 778301)

The Master of Arts degree requires the completion of a minimum of 30 units in psychology to include Psychology 610, 670A-670B or 770A-770B, 675, two units of 600, one unit of 797, and 799A. Students must also complete Psychology 561 or 760; one course selected from Psychology 587, 632, 740, 751; and two elective courses. In special cases, and by petition to the department's graduate committee, students may take up to six units of the required 30 units in 500-level and above courses in other departments.

All new Master of Arts degree students are required to take two units of Psychology 600 during their first year.

Specific Requirements for the Master of Science Degree

(Major Code: 20011) (SIMS Code: 778302)

The Master of Science degree may be obtained with the following concentrations:

1. **The Applied Psychology program (SIMS Code: 778311) has two specializations: Program Evaluation and Industrial and Organizational Psychology.**

Specific requirements for students selecting the Program Evaluation specialization (SIMS Code: 778303) are: A minimum of 38 units, 32 of which must be completed in psychology, to include Psychology 670A-670B or 770A-770B, 600 (Research Orientation, 2 units), 621 or 622, 630, 675, 791 (Internship in Applied Psychology, 6 units), and 799A (Thesis). Of the nine units of graduate electives required, at least three must be selected from psychology; six units of graduate electives may be selected from other departments with prior approval of the master's program adviser.

Specific requirements for students selecting the Industrial and Organizational specialization (SIMS Code: 778304) are: A minimum of 38 units, 35 of which must be completed in psychology, to include Psychology 670A-670B or 770A-770B, 600 (Research Orientation, 2 units), 621, 622, 630, 675, 721, 722, 792 (Internship in Industrial and Organizational Psychology, 6 units), and 799A (Thesis). Three units of graduate electives may be selected from psychology or from other departments with prior approval of the master's program adviser.

2. **Clinical Psychology (included within the Ph.D. program; not available separately).**

(Major Code: 20031) (SIMS Code: 778309)

A minimum of 36 units in psychology to include Psychology 770A-770B, 801, 820, 840, 849, 850, 855, 856, UCSD Clinical Psychology 227A (Mind, Brain, and Behavior I), and 896. UCSD Clinical Psychology 227B (Mind, Brain, and Behavior II) and Psychology 897 are optional. Completion of the second year project and approval by a committee consisting of a minimum of three faculty members representing both SDSU and UCSD. For this degree only, all approvals and advancement to candidacy will be completed by the program director of the joint doctoral program.

Section II. Doctoral Program

WEBSITE: <http://clinpsyc.sdsu.edu>

Admission to the Degree Curriculum

To be considered for admission to the SDSU/UCSD joint doctoral program in clinical psychology, students must meet the general requirements for admission to both universities with classified graduate standing as outlined in the respective current catalogs. These include (a) an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or equivalent academic preparation, as determined by the graduate deans of the two institutions; (b) a minimum overall grade point average of 3.0; (c) a grade point average of at least 3.25 in the last 60 semester (90 quarter) units attempted; (d) good standing at

the last institution attended; (e) a minimum score above the 55th percentile for both the GRE verbal and quantitative (regardless of whether the test was taken before or after August 1, 2011); and (f) a competitive score on the Psychology Subject GRE, which is required to apply to the program. However, given the large number of applicants in the field of clinical psychology, the selection process is designed to identify the best from among many highly qualified applicants. Thus no minimum set of qualifications in any way guarantees admission. Personal interviews will be conducted with the most promising applicants. Admission of any candidate who deviates from the minimum standards can only be granted with special permission of both graduate deans. No faculty member has authority to make an offer of a position in the program to any applicant, implied or otherwise, without final recommendation of the program directors and approval of the graduate deans.

Although an undergraduate psychology major is not mandatory for admission, applicants should have completed a minimum of 18 semester units (27 quarter units) in psychology including courses in abnormal psychology, intermediate/advanced statistical methods, life span developmental psychology, physiological psychology or biological bases of behavior, psychological testing and measurement, social psychology, and an advanced experimental laboratory in psychology. Advanced courses in perception and learning are desirable as are courses in biology, genetics, linguistics, mathematics, and other related areas (e.g., medical physics, computer sciences). The joint doctoral program is a year-round program.

An option for Ph.D. students in clinical psychology is to concurrently pursue the Master of Public Health (MPH) degree in the Graduate School of Public Health. Students jointly enrolled will first be accepted into the psychology program and then be recommended by the psychology program for admission to the MPH program. Students may be recommended at any time prior to receiving their doctoral degree. Following acceptance into the MPH degree, students must complete all required core classes as well as requirements for the concentration in health promotion. A specially designed program of study that incorporates requirements from both degree programs has been developed. Subsequent to coursework, MPH candidates are required to complete a comprehensive examination in their area of study. (For more information, see the section of this bulletin under "Public Health.")

Students will be admitted to graduate programs in psychology only in the fall semester. All application material for the Ph.D. program must be received by the doctoral program office and the SDSU Office of Graduate Admissions no later than December 1 (unless otherwise stated on the program's website). Because the research and clinical requirements of the program may involve work with vulnerable populations, all incoming students will complete a background check prior to initial matriculation.

Detailed instructions for applying to the program, along with all necessary forms, are located on the SDSU/UCSD Joint Doctoral Program in Clinical Psychology Web page, which can be found at <http://clinpsyc.sdsu.edu>. Please review and follow these instructions carefully. Specific questions not answered by these materials should be e-mailed to PsycJDP@mail.sdsu.edu.

Specific Degree Requirements for the Doctor of Philosophy Degree in Clinical Psychology

(Major Code: 20031) (SIMS Code: 778310)

The student is guided by requirements for the doctoral degree program given in Part Four of this bulletin. The core curriculum will normally be completed during the first two years. Completion of this core insures that students have a general background in empirical psychology (e.g., physiological, social, cognitive-affective, and individual bases of behavior); knowledge of conceptualizations of personality and psychopathology; an awareness and appreciation of professional ethics, conduct, and multicultural issues in an increasingly diverse society; knowledge of the theory and techniques of psychological assessment; therapeutic interventions, acquisition of therapeutic skills; a minimum of 1,000 hours of supervised clinical experience; and competence in research methods. Specific courses providing this background at SDSU include Psychology 770A-770B, 801, 820, 840, 849,

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850, 855, 856, UCSD Clinical Psychology 227A (Mind, Brain, and Behavior I), 875 (or 775), 896, 897, and UCSD Clinical Psychology 227B (Mind, Brain, and Behavior II). Students also must take a course in cognitive/affective bases of behavior. This is typically taken at UCSD.

During the second year, students select a research topic for a second year project, which is similar to a master's thesis. Students are responsible for conducting all phases of this project under the supervision of their joint guidance committee. Students may also elect to obtain a master's degree in clinical psychology by completing requirements for the Master of Science degree.

After completing the basic two-year core, work in subsequent years will diverge for students in each of the three major areas of study: behavioral medicine, experimental psychopathology, and neuropsychology.

Students with a program of study in behavioral medicine are required to take Psychology 842 (Behavioral Medicine Seminar: Assessment) and Psychology 843 (Behavioral Medicine Seminar: Intervention), typically in the third year. Students taking experimental psychopathology are required to take Psychology 833 (Seminar in Developmental Psychopathology) and Psychology 852 (Seminar in Experimental Psychopathology Research), typically in the third year. Students in neuropsychology are required to take UCSD Clinical Psychology 294 (Seminar in Neuropsychology).

In the fourth year, students are expected to submit and defend a dissertation proposal. Many students will also collect the data for and begin writing the dissertation during this year.

The fifth year is reserved for the completion of a doctoral dissertation and a full-time clinical internship that is identified by the student and the joint guidance committee. While on internship, students must remain registered in Psychology 894, (Clinical Internship) and Psychology 899 (Doctoral Dissertation).

Students are expected to maintain the highest standards of academic performance with a minimum 3.0 grade point average. According to doctoral program policy, falling below a 3.0 GPA automatically places the student on academic probation. The student may not remain on academic probation for more than one year. In addition, three grades below a B (i.e., a B- or lower or No Credit) are grounds for dismissal from the program without further qualification regardless of the student's overall GPA.

In clinical psychology, adherence to the Ethical Principles of Psychologists (APA, Revised, 2003) is mandatory. Students who knowingly or unknowingly violate any part of the ethical code may be dismissed from the program without further qualification regardless of coursework, research, or other academic achievement. A copy of the ethical code is made available to students at their initial orientation.

Prior to advancement to candidacy, students will be required to sign a statement of understanding that (1) the doctoral faculty will communicate with the clinical internship agency all information relevant to the student's academic and professional qualifications for placement and continuation in the internship and (2) the student understands that the clinical internship must be satisfactorily completed before graduation.

Faculty

The following faculty members of the cooperating institutions participate in the joint doctoral program in clinical psychology and are available for direction of research and as members of joint doctoral committees.

San Diego State University:

Program Director: Malcarne

Program Members: Amir, Blashill, Carper, Cronan, Fishman, Gallo, Gilbert, Helm, Holcomb, Kappenman, Malcarne, Marinkovic, Matt, Mattson, Müller, Murphy, Price, Roesch, Sereno, M. Taylor, Thoman, Thomas, Vaughn, F. Villodas, M. Villodas, Weersing, Wells, Wiggins, Yeh

University of California, San Diego:

Program Director: Heaton

Program Members: Aarons, Afari, Akshoomoff, Anderson, Angkaw, Ayers, Backhaus, Bagot, Ballantyne, Bangen, Bellugi, Bloss, Bondi, Boutelle, Braff, Brookman-Frazee, G. Brown, S.A. Brown, S.J. Brown, Buzzella, Cadenhead, Calfas, Campbell, Cardenas, Carver, Cherner, Corey-Bloom, Davis, Delano-Wood, Delis, Depp, Doran, Edmonds, Eyler, Filoteo, Fiorentino, Gallegos Rodriguez,

Giedd, Gollan, Granholm, Grant, Groessl, Haist, Haller, Harrington, Heaton, Heppner, Hong, Iudicello, Jacobson, Jacobus, Jak, Jernigan, Jeste, Kelsoe, Kritchevsky, Kremen, Kutas, Lang, Light, Marcotte, Marquine, Mausbach, Max, McDonald, Mills, D. Moore, R. Moore, Morgan, Morland, Myers, Nichols, M. Norman, S. Norman, Orahovats, Palmer, Parry, Patrick, Patterson, Perivoliotis, Perry, Rutledge, Sadler, Salmon, Saxena, Schiehser, Schuckit, Sieber, Sparta, Stein, Strathdee, Swerdlow, Tapert, C. Taylor, Townsend, Trauner, Trim, Twamley, Wall, Wetherell, Wierenga, Williams, Woods, Worley, Zhu, Zisook

Courses Acceptable for Master's and Doctoral Degree Programs in Psychology (PSY)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

PSY 561. Advanced Neuropsychology (3)

Prerequisite: Psychology 360 or 361 or grade of B (3.0) or better in Psychology 260.

Biological bases of neuropsychological function and dysfunction, relationships between brain structure and function, neuropsychological assessment tools.

PSY 587. Advanced Principles of Learning and Cognition (3)

Prerequisites: Psychology 211, 280, and 380. Limited to graduate students or psychology majors with senior standing.

Empirical data, basic principles and theoretical positions of major theorists in learning and cognitive psychology.

PSY 596. Selected Topics in Psychology (1-3)

Prerequisites: Psychology 101 and consent of instructor.

Intensive study in specific areas of psychology. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

NOTE: Graduate courses in psychology are not open to post-baccalaureate unclassified students.

NOTE: Priority for enrollment in graduate courses in psychology is given to psychology students who have the courses as requirements in their respective programs.

PSY 600. Research Orientation (1) Cr/NC

Prerequisite: Admission to the master's degree program.

Research in psychology. All master's degree students are required to enroll in this course. Maximum credit two units.

PSY 610. Advanced Research Methods in Psychology (3)

Prerequisite: Admission to the master's degree program.

Diverse research methods across different areas of psychology. Interdependence of theory and methodology in research to include design, measurement, and validity.

PSY 621. Seminar in Personnel Psychology (3)

Prerequisites: Psychology 320 and consent of master's program adviser.

Problems and procedures in selection, classification, and performance appraisal, focusing on testing in industry, the interview, and other selection and assessment devices. Criterion development and measurement methods.

PSY 622. Seminar in Organizational Psychology (3)

Prerequisites: Psychology 321 and consent of master's program adviser.

Applications of psychological principles and methods of investigation to problems of industrial relations and motivation of employees; factors influencing morale and employee productivity; criteria of job proficiency; psychological aspects of worker-management relationships and leadership.

PSY 630. Seminar in Program Evaluation (3)

Prerequisite: Graduate standing in psychology.

Theory and practice of program evaluation. Surveys concepts, issues, and methods relevant to evaluating programs, services, and interventions in the public and private sectors.

PSY 632. Theories and Methods in Developmental Science (3)

Prerequisite: Psychology 331 or 332.

Philosophical and biological origins of developmental psychology. Examination of processes that shape perception, language acquisition, socialization, and cognition.

PSY 670A-670B. Advanced Statistics in Psychology (3-3)

Two lectures and two hours of activity.

Prerequisites: Psychology 370, 410, a passing score on the departmental statistics placement test, and consent of master's program adviser.

Fundamentals of multiple regression and correlation. Principles of experimental design. Analysis of variance including factorial and repeated-measures designs and a priori and post hoc comparisons including trend analysis. Computer-based statistical packages in the analysis of data from psychological research.

PSY 675. Seminar in Psychological Measurement (3)

Prerequisites: Psychology 370 and consent of master's program adviser.

General principles, theory and methods underlying measurement in studies of group and individual differences in controlled experiments.

PSY 696. Selected Topics in Psychology (3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of psychology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

PSY 721. Advanced Seminar in Personnel Psychology (3)

Prerequisites: Psychology 621 and consent of master's program adviser.

Selected areas within personnel psychology including selection, classification, performance appraisal, test development, criterion development, measurement and scaling techniques. Course may be repeated with new content with permission of instructor and master's program adviser. Maximum credit six units applicable to a master's degree.

PSY 722. Advanced Seminar in Organizational Psychology (3)

Prerequisites: Psychology 622 and consent of master's program adviser.

Selected areas within organizational psychology including leadership, motivation, organizational development, and organizational effectiveness. Course may be repeated with new content with permission of instructor and master's program adviser. Maximum credit six units applicable to a master's degree.

PSY 740. Seminar in Social Psychology (3)

Prerequisites: Undergraduate course in social psychology and graduate level status.

Classic and contemporary issues in social psychology including social influence, person perception, attitudes and attitude change, group dynamics, intergroup conflict, and cultural influence.

PSY 751. Clinical Psychology: Theory and Practice (3)

Prerequisites: Graduate standing in psychology and Psychology 350.

Clinical assessment, theory and practice of behavior change, and professional ethics.

PSY 760. Seminar in Physiological Correlates of Behavior (3)

Prerequisites: Psychology 260 or six units of biology; and consent of master's program adviser.

Course may be repeated provided it is offered by a different instructor and the subject matter is substantially different. To enroll in the seminar for the second time, the student must submit a petition to be approved by the professor of the course and the master's program adviser. Maximum credit six units applicable to a master's degree.

PSY 767. Seminar in Cognitive and Behavioral Neuroscience (3)

Prerequisite: Consent of instructor for programs outside of psychology master of arts and doctoral program.

Issues of contemporary importance in neuroscience. See *Class Schedule* for specific content. Course may be repeated provided it is offered by a different instructor and the subject matter is substantially different. To enroll in the seminar for the second time, the student must submit a petition to be approved by the professor and the master's program adviser. Maximum credit six units applicable to a master's degree.

PSY 770A-770B. Experimental Design and Data Analysis in Behavioral Research (3-3)

Two lectures and two hours of activity.

Prerequisites: Psychology 370, 410, a passing score on the departmental statistics placement test, and consent of master's program adviser.

Principles and methods of behavioral research stressing interdependence of experimental design and statistical evaluation of results. General linear model in its regression and ANOVA formulations. Advanced multiple regression and correlation techniques using computer-based statistical packages.

PSY 775. Multivariate Statistics in Psychology (3)

Two lectures and two hours of activity.

Prerequisites: Psychology 670A-670B or 770A-770B and consent of instructor.

Introduction to multivariate techniques. Latent structure models with attention to relationship between latent constructs and observable data. Includes causal models, factor analysis (both exploratory and confirmatory), canonical correlation, path analysis, discriminant function analysis, and loglinear analysis.

PSY 790. Practicum in the Teaching of Psychology (1) Cr/NC/RP

Prerequisite: Award of a graduate teaching associateship in psychology.

Supervision in the teaching of psychology, covering lecture writing, style of lecture presentation, in-class demonstration and exercise, test and syllabi construction, and grading system. Not applicable to an advanced degree.

PSY 791. Internship in Program Evaluation (1-6) Cr/NC/RP

Up to 20 hours of supervised work per week in a program approved internship setting.

Prerequisites: Psychology 630 and consent of instructor.

Supervised training in program evaluation in a program approved internship setting. Maximum credit six units.

PSY 792. Internship in Industrial and Organizational Psychology (1-6) Cr/NC/RP

Up to 20 hours of supervised work per week in a program approved internship setting.

Prerequisites: Consent of instructor. Credit or concurrent registration in Psychology 621 and 622.

Supervised training in industrial and organizational psychology in a program approved internship setting. Maximum credit six units.

PSY 796. Selected Topics in Psychology (3)

Prerequisite: Advanced master's and doctoral standing in psychology.

Intensive study in specific areas of psychology. In-depth investigation of controversial issues in the field as well as introduction to current and emerging technologies. Cognition, cognitive neuroimaging, and social perception. Maximum credit six units of 696 and 796 applicable to a master's degree with approval of graduate adviser.

PSY 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of master's program adviser.

Research in one of the fields of psychology. Maximum credit six units applicable to a master's degree.

PSY 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree. Credit is contingent upon acceptance of the completed thesis by the Department of Psychology.

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PSY 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

DOCTORAL COURSES

PSY 801. Seminar in History and Ethics in Psychology (3)

Prerequisite: Admission to doctoral program in clinical psychology.

Historical background of modern psychology; in-depth examination of the American Psychological Association code of ethics and its application to the conduct of clinical psychologists.

PSY 820. Seminar in Cultural Psychology (3)

Prerequisite: Admission to doctoral program in clinical psychology.

Cultural origins of human behavior; cultural limits of psychological knowledge.

PSY 833. Seminar in Developmental Psychopathology (3)

Prerequisite: Admission to doctoral program in clinical psychology.

Research and theory in biological and social origins of psychopathology. Methods of assessing developmental change and stability, issues related to vulnerability and resiliency, developmental appropriateness of approaches to interventions, and role of culture as a developmental context.

PSY 840. Seminar in Personality and Social Psychology (3)

Prerequisite: Admission to doctoral program in clinical psychology.

Research and theory in personality and social psychology. Theories of personality and individual differences, group processes, sex roles, social perception, and cross-cultural issues.

PSY 842. Behavioral Medicine Seminar: Assessment (3)

Prerequisite: Admission to doctoral program or approval by instructor and program director.

Assessment methods and issues in behavioral medicine. Development and implementation of assessment plans. Theoretical and practical aspects of psychological, behavioral, and physiological assessment methods for various health issues.

PSY 843. Behavioral Medicine Seminar: Intervention (3)

Prerequisites: Admission to doctoral program and Psychology 842.

Design and implement interventions by stressing empirically supported approaches to improve health and change health behaviors. Strengths and weaknesses of clinical community interventions.

PSY 849. Seminar and Laboratory in Counseling and Psychotherapy (4)

Two lectures and six hours of laboratory.

Prerequisite: Consent of graduate adviser.

Supervised practice in application of psychotherapeutic and counseling techniques from selected cognitive, dynamic, interpersonal, and behavioral approaches. Open only to students accepted in the doctoral program.

PSY 850. Seminar in Theory and Practice in Clinical Interventions (3)

Prerequisite: Admission to doctoral program in clinical psychology.

Theory and application of clinical interventions, advanced study of interviewing techniques, behavioral interventions, cognitive/behavioral interventions, and family/child interventions.

PSY 852. Seminar in Experimental Psychopathology Research (3)

Prerequisite: Admission to doctoral program in clinical psychology.

Analysis of experimental and theoretical literature as it pertains to research methodology for the study of disordered behavior.

PSY 855. Seminar in Psychological Assessment I (4)

Two lectures and six hours of laboratory.

Prerequisites: Psychology 350, 370, and consent of graduate adviser.

Theory and practice in assessment of intelligence and special abilities. Open only to students accepted in the doctoral program.

PSY 856. Seminar in Psychological Assessment II (4)

Two lectures and six hours of laboratory.

Prerequisites: Psychology 855 and consent of graduate adviser.

Theory and practice in assessment of special abilities, personality and behavior disorders. Open only to students accepted in the doctoral program.

PSY 875. Advanced Multivariate Statistics (3)

Two lectures and two hours of activity.

Prerequisites: Admission to the doctoral program in clinical psychology, Psychology 770A-770B, and consent of instructor.

Use of multivariate techniques. Relationship between latent constructs and observable data. Analyses such as causal models, exploratory and confirmatory factor analysis, canonical correlation, path analysis, discriminant function analysis, loglinear analysis, and hierarchical linear modeling using computer-based statistical packages.

PSY 894. Clinical Internship (3-15) Cr/NC/RP

Prerequisites: Completion of coursework, second year project, and advancement to candidacy.

Clinical training in an APA-approved internship setting.

PSY 895. Practicum in the Teaching of Psychology (1-6) Cr/NC

Prerequisite: Admission to doctoral program in clinical psychology.

Supervision in the teaching of psychology, covering lecture writing, style of lecture presentation, in-class demonstration and exercises, test and syllabi construction, and grading systems.

PSY 896. Clinical Practicum (1-15)

Prerequisite: Admission to the doctoral program.

Supervision of advanced intervention strategies applied to clinical populations.

PSY 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent investigation in the general field of the dissertation.

PSY 898. Doctoral Special Study (1-8) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Individual study in the field of specialization. Maximum credit eight units applicable to the doctoral degree.

PSY 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

Public Administration

IN THE SCHOOL OF PUBLIC AFFAIRS
IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

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Jeffrey S. McIlwain, Ph.D., Associate Professor of Public Affairs

Megan B. Welsh, Ph.D., Assistant Professor of Public Affairs

General Information

The School of Public Affairs offers graduate study leading to the Master of Public Administration degree, either face-to-face, or online. Research facilities include the Institute of Public and Urban Affairs and the Public Administration Center.

The San Diego metropolitan community affords significant internship opportunities for the graduate student in federal, state, and local government agencies.

The School of Public Affairs' M.P.A. degree is accredited by the Network of Schools of Public Policy, Affairs, and Administration (NASPAA) and listed on its annual roster of accredited programs found to be in conformity with standards established for professional master's degrees in public affairs and administration.

Master of Public Administration Degree

This degree permits the selection, under advisement, of a program of courses and seminar work which may be oriented toward a generalist approach or with a research focus on border governance, fiscal policy and administration, organizational behavior and development, public policy, or urban administration. Also offered are concentrations in criminal justice administration and city planning, each consisting of 15 units within the required program for the Master of Public Administration. Since management responsibilities are shared by administrators in a number of professional areas in public service, students are encouraged to supplement the study of government and administration with graduate courses in economics, sociology, psychology, business administration, and other related areas.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. The student must also satisfy the following requirements: (1) a 3.0 grade point average in the undergraduate major and a 2.85 overall average; and (2) an acceptable score on the GRE General Test.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Public Affairs.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Public Affairs

The following admissions materials must be submitted electronically before April 1:

1. Letters of recommendation (two letters from persons familiar with the applicant's academic ability and accomplishments);
2. Statement of purpose.

For information regarding the admissions process, visit the school's website at <http://spa.sdsu.edu>.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy, as described in Part Four of this bulletin and be recommended by the faculty. In order to be recommended for advancement, a student must have achieved an overall grade point average of 3.0 with no grade below B- (2.7) in Public Administration 600 and in three additional courses selected from Public Administration 604, 605 or 606, 630, 642, 650, 660.

Specific Requirements for the Master of Public Administration Degree

(Major Code: 21021) (SIMS Code: 666901)

In addition to meeting the requirements for classified graduate standing, students must satisfy the basic requirements for the master's degree as described in Part Four of this bulletin. Students must also complete as a part of their programs: (1) at least 27 units of 600- and 700-numbered courses including Public Administration 600, 604, 605 or 606, 630, 642, 650 and 660; (2) a minimum of nine additional units of 500-level or graduate courses in public administration or related fields selected under advisement. An internship of 12 units (one semester) beyond the 36 units of coursework is required of students who have not had equivalent managerial-level experience. The internship normally will be served in a governmental agency where the intern will perform administrative duties. Placements typically will be made in the office of a city manager, a budget office, a personnel office or in the office of the head of a major operating department. Public Administration 799A, Thesis, must be included in the program unless Plan B with a comprehensive written examination in lieu of the thesis is selected by the student with the approval of a graduate adviser; and (3) Students who specialize in Public Personnel and Labor Relations must take Public Administration 530, 531, 632, and 643.

Public Administration

Concentration in Criminal Justice Administration

(Major Code: 21051) (SIMS Code: 666926)

Students must complete 15 units from the following courses as part of the M.P.A. degree:

CJ 602	Seminar in Comparative Criminal Justice System.....	3
CJ 603	Seminar in Community and Restorative Justice.....	3
CJ 604	Seminar in Criminal Justice and Urban Administration.....	3
CJ 605	Seminar in Juvenile Justice and Youth Violence.....	3
	Criminal Justice elective at the 500- to 700-level.....	3

Concentration in City Planning

(Major Code: 02061) (SIMS Code: 666918)

Students must complete the following courses as part of the M.P.A. degree:

P A 525	The U.S. City Planning Process.....	3
C P 630	Seminar in Urban Planning Implementation.....	3
C P 640	Seminar in Urban Planning Theory.....	3
C P 670	History of Urban Planning.....	3
C P 690	Seminar in Land Use Planning Principles and Techniques.....	3

Master of Public Administration Degree and Master of Arts Degree in Latin American Studies

General Information

The School of Public Affairs and the Center for Latin American Studies offer a concurrent graduate program leading to a Master of Public Administration and a Master of Arts in Latin American Studies. This concurrent degree program offers students preparation in the fields of public administration and Latin American studies for the purpose of public administration in fields requiring bi-national understanding of administration in the public sector.

If a student in the concurrent graduate program returns to a single degree program, none of the provisions of the concurrent degree program shall pertain. Transfer units will not be accepted towards the concurrent degrees, nor will previous graduate study or prior degrees be accepted toward meeting the unit requirements.

Admission to the Degree Curriculum

All students must satisfy the general requirements for admission to the university with classified graduate standing as described in Part Four of this bulletin. The successful applicant will also satisfy the requirements for both the Master of Public Administration and the Master of Arts in Latin American Studies. To be admitted to the program, students must have (1) a 3.0 grade point average in the undergraduate major and 2.85 overall and (2) an acceptable score on the Graduate Record Examination (GRE) General Test. Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee as described in Part Four of this bulletin.

The following materials should be mailed or delivered to:

Center for Latin American Studies

(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-6038

1. Personal statement;
2. Three letters of reference from individuals who have known the student's academic performance (one letter may be from an individual who knows the employment performance of the student).

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin and be recommended by the graduate advisers of both programs. In addition, all students must (1) complete Public Administration 600

and three additional courses selected from Public Administration 604, 605 or 606, 630, 642, 650, 660; (2) complete Latin American Studies 600 and 601; (3) achieve an overall grade point average of 3.0 in these course with no grade below B-; (4) complete with a grade of B (3.0) or better, Spanish 302 or Portuguese 401, or their equivalents, or three units of 500-level or graduate coursework in Spanish, or pass the American Council of the Teaching of Foreign Languages (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above; (5) demonstrate international experience in Latin America through an approved study abroad or an international internship experience, or successful completion of Latin American Studies 550, an approved study abroad experience course.

Specific Requirements for the M.P.A./M.A. Degree

(Major Code: 21020) (SIMS Code: 666905)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study consisting of 54-66 units as outlined below.

1. Complete the following core of eight courses (24 units):

P A 600	Scope of Public Administration.....	3
P A 604	Methods of Analysis in Public and Urban Affairs.....	3
P A 630	Seminar in Public Personnel Administration.....	3
P A 642	Seminar in Administrative Theory.....	3
P A 650	Seminar in Public Financial Management.....	3
P A 660	Administration and Public Policy Development.....	3
LATAM 600	Seminar in Latin American Studies.....	3
LATAM 601	Seminar on Methodology of Latin American Studies.....	3
2. Complete one of the following courses (3 units):

P A 605	Seminar in Research Methods in Public Administration.....	3
P A 606	Seminar in Quantitative Approaches to Public Administration.....	3
3. Complete three courses in one theme listed below (9 units):

City Planning Theme

P A 525	The U.S. City Planning Process.....	3
C P 630	Seminar in Urban Planning Implementation.....	3
C P 640	Seminar in Urban Planning Theory.....	3
C P 670	History of Urban Planning.....	3
C P 690	Seminar in Land Use Planning Principles and Techniques.....	3

Criminal Justice Administration Theme

CJ 601	Seminar in the Administration of Criminal Justice.....	3
CJ 602	Seminar in Comparative Criminal Justice System.....	3
CJ 603	Seminar in Community and Restorative Justice.....	3
CJ 604	Seminar in Criminal Justice and Urban Administration.....	3
CJ 605	Seminar in Juvenile Justice and Youth Violence.....	3

Public Personnel and Labor Relations Theme

P A 530	Negotiation and Bargaining in the Public Service.....	3
P A 531	Governmental Employer-Employee Relations.....	3
P A 632	Seminar of Organization Development in the Public Sector.....	3
P A 643	Seminar in Administrative Behavior.....	3

General Public Administration Theme

P A 620	Seminar in Management of Urban Governments.....	3
P A 632	Seminar of Organization Development in the Public Sector.....	3
P A 640	Seminar in Public Administration.....	3
4.	Complete five courses from at least two departments (15 units):	
Latin American Studies		
LATAM 540	History, Society, and Ecology of Baja Peninsula.....	3
LATAM 550	Mexican-US Border from a Latin American Perspective.....	3
LATAM 580	Special Topics*.....	3
LATAM 750	Seminar: Study in Latin America.....	3
LATAM 797	Research.....	3 (Cr/NC/RP)
LATAM 798	Special Study.....	3 (Cr/NC/RP)
Anthropology		
ANTH 520	Ethnographic Field Methods.....	3
ANTH 529	Urban Anthropology.....	3
ANTH 531	Methods in Applied Anthropology.....	3
ANTH 533	Race, Ethnicity, and Identity*.....	3
ANTH 582	Regional Anthropology*.....	3
ANTH 583	Topical Anthropology*.....	3
ANTH 605	Seminar in Applied Anthropology.....	3
Economics		
ECON 565	North American Economic Relations.....	3
ECON 600	level or above; may include related elective: ECON 561 International Trade (3) or ECON 592 International Monetary Theory and Policy (3)	
Geography		
GEOG 506	Landscape Ecology*.....	3
GEOG 573	Population and the Environment*.....	3
GEOG 574	Water Resources*.....	3
History		
HIST 550	Colonial Mexico.....	3
HIST 551	Modern Mexico.....	3
HIST 558	Latin America in World Affairs.....	3
HIST 580	Topics in the History of War and Violence*.....	3
HIST 640	Directed Readings in Latin American History.....	3
Political Science		
POL S 562	Religion and Politics in Comparative Perspective.....	3
POL S 564	Political Ecology of Latin America.....	3
POL S 565	Nations and Nationalism.....	3
POL S 566	Political Change in Latin America.....	3
POL S 567	Political Systems of Latin America.....	3
POL S 568	Mexican Politics.....	3
POL S 661	Seminar in the Political Systems of the Developing Nations*.....	3
POL S 667	Seminar in Latin American Political Systems.....	3
Portuguese		
PORT 535	Brazilian Literature.....	3
Sociology		
SOC 522	The Family in Comparative and Cross-Cultural Perspectives.....	3
SOC 554	Sociology of the United States-Mexico Transborder Populations and Globalization.....	3
Spanish		
SPAN 602	Foundations and Research Methods of Hispanic Linguistics.....	3
SPAN 606	Spanish American Literature: Independence to Present.....	3

SPAN 751	Seminar in Realism*.....	3
SPAN 752	Seminar in Literature and Culture of the Fin-de-Siècle.....	3
SPAN 760	Seminar in Reading in the Transatlantic Imaginary.....	3

*Acceptable when of relevant content; check with the Latin American Studies graduate adviser before enrolling.

- Students must complete P A 799A or LATAM 799A or P A 797 or LATAM 797 (3 units). The thesis (P A 799A or LATAM 799A) must treat a Latin American related topic in public administration and will be supervised by at least one public administration faculty and at least one member of the Latin American studies faculty. A culminating research experience (P A 797 or LATAM 797) must incorporate field research or an internship, and must result in a project that is approved by the graduate advisers in both programs.
- An internship of 12 units (one semester) beyond the coursework is required of students who have not had equivalent experience. Students should consult with the public administration graduate adviser before enrolling.
- Students must pass the American Council of Teachers of Foreign Language (ACTFL) oral proficiency examination in either Spanish for Portuguese with a score of 2.0 or above.

Courses Acceptable for Master's Degree Programs in Public Administration (P A)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

P A 501. Nonprofit Organizations and Government (3)

Prerequisites: Public Administration 301 and 460.

How nonprofit organizations interact with government institutions, influence and pressure government through policy advocacy and activism, and partner with government in contracting, public service provision, and policymaking.

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)

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 571. Managing Water and Energy Resources (3) (Offered only at IVC)

Prerequisite: Public Administration 301.

Management and economics of water and energy resources, delivery systems, regulatory framework, and renewable resources. Contemporary water and energy management issues.

Public Administration

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.

P A 581. War, the State, and Governance: Global Perspectives (3)

Prerequisite: Upper division or graduate standing. Recommended: Public Administration 301 with a grade of C (2.0) or better.

Defense and security challenges through global perspectives. Budgetary, intelligence, leadership, logistical, military, organizational, policy, political, and strategic challenges and opportunities confronted by government via case studies.

P A 582. War, the State, and Governance: U.S. Perspectives (3)

Prerequisite: Upper division or graduate standing. Recommended: Public Administration 301 with a grade of C (2.0) or better.

Defense and security challenges through U.S. perspectives. Budgetary, intelligence, leadership, logistical, military, organizational, policy, political, and strategic factors confronted by government via case studies.

P A 596. Experimental Topics (1-4)

Selected current topics in public administration. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

P A 600. Scope of Public Administration (3)

The development of public administration as an academic discipline; a systematic evaluation of the rise and operations of large-scale public bureaucracies.

P A 604. Methods of Analysis in Public and Urban Affairs (3)

Prerequisite: Credit or concurrent registration in Public Administration 600.

Research design for problems and cases in public affairs; summarizing and organizing data; methods of projection; sampling theory and application; using census and other secondary data sources.

P A 605. Seminar in Research Methods in Public Administration (3)

Prerequisite: Public Administration 604.

Examination of basic research approaches, i.e., legal, historical, and small-group, etc.

P A 606. Seminar in Quantitative Approaches to Public Administration (3)

Prerequisite: Public Administration 604.

Advanced techniques for analyzing problems in public and urban affairs; emphasis on computer applications.

P A 620. Seminar in Management of Urban Governments (3)

Selected problems in the management of urban governments. Maximum credit six units applicable to a master's degree.

P A 630. Seminar in Public Personnel Administration (3)

Prerequisite: Public Administration 600.

Analysis of selected problems in personnel administration; special emphasis on organizational development and consultation skills as emerging personnel functions. Maximum credit six units applicable to a master's degree.

P A 632. Seminar of Organization Development in the Public Sector (3)

Prerequisite: Public Administration 600.

Organization development theory and practice. Emphasis on organizational diagnosis, intervention theory, team building and process consultation skills as they apply to public sector organizations.

P A 640. Seminar in Public Administration (3)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

P A 642. Seminar in Administrative Theory (3)

Prerequisite: Public Administration 600.

Organization and management; the executive role, decision making; bureaucracy; authority and power; communication and control and organizational system; tactics and strategies in effective management.

P A 643. Seminar in Administrative Behavior (3)

Prerequisite: Public Administration 340.

Intrapersonal, interpersonal and group development knowledge which enhances the administrator's effectiveness. Simulations and structured experiential designs examine behaviors encountered in public bureaucracies.

P A 650. Seminar in Public Financial Management (3)

Prerequisite: Public Administration 450.

Economics and politics of the public sector. Theories of public expenditure analysis and revenue generation. Issues of ethics and efficiency in government financial policy.

P A 660. Administration and Public Policy Development (3)

Prerequisite: Public Administration 600.

Social, political and administrative problems involved in governmental program development and change.

P A 791. Readings in Public Administration (3) Cr/NC

Prerequisites: Public Administration 600 and advancement to candidacy.

Selected readings in the literature of public administration.

P A 792. Problem Analysis (3)

Analytical treatment of selected problems in Public Administration. Review of methods for investigation and reporting of data. Consideration of problems in preparation of projects or thesis.

P A 796. Internship in Public Administration (3-12) Cr/NC

Prerequisite: Consent of instructor.

The 12 units of 796 will be exempt from the university's requirement that courses graded Cr/NC be limited to 30 percent of units for the master's degree.

P A 797. Research in Public Administration (3) Cr/NC/RP

Prerequisite: Consent of director of public affairs.

Research in one of the areas of public administration. Maximum credit six units applicable to a master's degree.

P A 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff, to be arranged with the director and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

P A 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

P A 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

P A 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Public Health

IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

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Faculty

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Brandy Lipton, Ph.D., Assistant Professor of Public Health
Melody Schiaffino, Ph.D., M.P.H., Assistant Professor of
Public Health
Nicola Macchione, M.S., M.P.H., John J. Hanlon Executive Scholar

Health Promotion and Behavioral Science

John P. Elder, Ph.D., M.P.H., Albert W. Johnson Distinguished
Professor of Public Health, Emeritus, Division Head
Guadalupe X. Ayala, Ph.D., Professor of Public Health
and Associate Director for Research, Graduate School
of Public Health
Elva M. Arredondo, Ph.D., Professor of Public Health
Heather L. Corliss, Ph.D., M.P.H., Professor of Public Health
Melbourne F. Hovell, Ph.D., M.P.H., Albert W. Johnson
Distinguished Professor of Public Health, Emeritus
Hala Madanat, Ph.D., Professor of Public Health
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Eric R. Buhi, Ph.D., Associate Professor of Public Health
Jerel P. Calzo, Ph.D., Associate Professor of Public Health
Elizabeth Reed, Ph.D., Associate Professor of Public Health
Noe C. Crespo, Ph.D., Assistant Professor of Public Health
Nada Kassem, Dr.P.H., M.S., R.N., Research Associate Professor
Sheila F. Castaneda, Ph.D., Research Assistant Professor

Environmental Health

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Division Head
Eunha Hoh, Ph.D., Professor of Public Health
Penelope J.E. (Jenny) Quintana, Ph.D., M.P.H., Professor of Public
Health (Graduate Adviser)

M. Zohir Chowdhury, Ph.D., Associate Professor of Public Health
Preventive Medicine Residency

Linda L. Hill, M.D., M.P.H., Adjunct Associate Professor of
Public Health, Director
Kevin M. Patrick, M.D., M.S., Adjunct Professor of Public Health,
Associate Director
Wilma Wooten, M.D., M.P.H., Adjunct Associate Professor of
Public Health

The John J. Hanlon Chair in Health Services Research and Policy

Alvarado Hospital Medical Center has joined with SDSU's faculty and staff to create The John J. Hanlon Chair in Health Services Research and Policy in the Graduate School of Public Health (GSPH). The chair is named in honor of the late Dr. John J. Hanlon, former assistant surgeon general for the U.S. Public Health Service. Dr. Hanlon coordinated the planning and development of SDSU's Graduate School of Public Health.

General Information

The Graduate School of Public Health offers advanced study leading to the degrees of Doctor of Philosophy, Master of Public Health, Master of Science, and a program that allows students to earn the Master of Public Health concurrently with the Master of Social Work, the Master of Arts in Latin American Studies, or the Doctor of Medicine. The Ph.D. is offered in three concentration areas, to include epidemiology, global health, health behavior with various specialization opportunities (see doctoral program); the M.P.H. is offered with concentrations in the areas of biometry, environmental health, epidemiology, health promotion and behavioral science, and health management and policy; the M.S. degree is offered with a concentration in the area of environmental health sciences. In addition to these advanced degree programs, the school offers a preventive medicine residency program that prepares qualified physicians to sit for the American Board of Preventive Medicine certification examination. Residents may receive the M.P.H. degree along with completion of this residency program. Finally, the public health faculty directs academic study leading to a Bachelor of Science degree in health science for those undergraduate students interested in public health. For more information concerning this undergraduate program, see the General Catalog.

The Graduate School of Public Health is nationally accredited by the Council on Education for Public Health (CEPH). The graduate program in health management and policy is accredited by the Commission on Accreditation for Health Management Education (CAHME), and the preventive medicine residency program is accredited by the Accrediting Commission for Graduate Medical Education (ACGME).

The curriculum in the Graduate School of Public Health has been designed to prepare students as practitioners of public health as well as for careers in teaching and research and as leaders in both public and private sector agencies and organizations. To accomplish this mission effectively, the faculty of the Graduate School of Public Health is augmented by expert practitioners in specialized fields related to public health who contribute to both the academic and practical experiences of students pursuing public health degrees. These professionals, who hold research or adjunct professorships in the school, come from a variety of settings such as the County Health and Human Services Agency, military services, hospitals, HMOs, managed care agencies, industry, and other academic institutions.

The Graduate School of Public Health has established close cooperation between the GSPH at San Diego State University and the Department of Family and Preventive Medicine in the School of Medicine at the University of California, San Diego. The UCSD medical school faculty has joined the public health faculty at SDSU in offering the Ph.D. in public health as well as the preventive medicine residency program. Under a special affiliation agreement between the two institutions, medical students

at UCSD may take public health courses at SDSU while pursuing their medical studies and, if they choose, earn the M.D. and M.P.H. degrees concurrently. Likewise, SDSU students pursuing advanced study in the GSPH may enroll for specialized courses in the medical school.

This broad network of individual practitioners and the institutions they serve provides a variety of health facilities in which students at the GSPH may meet field studies and practicum requirements. Many of these opportunities are available not only in the San Diego region, but also in Mexico. The school's proximity to the Mexican border has led to the development of strong professional ties between the faculty and students of the GSPH and their counterparts in Baja California. Special arrangements with Universidad Autonoma de Baja California enable students to take courses for credit at the Tijuana campus. This connection has produced a continuing series of jointly sponsored binational research and service projects designed to improve public health conditions and health services on both sides of the border.

Research

Faculty and student research in the broad interdisciplinary field of public health is conducted within the various specialized areas that are generally defined by the degree concentrations. The following descriptions illustrate the focus of research within each of these areas.

Biometry and Biostatistics: Development and application of statistical methods and models in the fields of public health, medicine, and biology. A concentration in biometry, and the scope of the academic and research opportunities in the university may be seen in the listing for the program in biostatistics and biometry presented earlier in this bulletin.

Environmental Health: Identification, evaluation and control of chemical, biological and physical agents in the environment. Current emphasis is on U.S.–Mexico border issues and on applying emerging technologies to environmental programs.

Epidemiology: Identification of biological, environmental, social, and behavioral risk factors of human disease; determination of the distribution and etiology of disease in human populations, particularly infectious and chronic diseases.

Health Promotion and Behavioral Science: Behavioral science applied to health-related behavior for the identification of risk factors for physical and mental health “illnesses,” and the experimental evaluation of interventions aimed at changing risk practices or promoting health enhancing behavior; emphasis is placed on vulnerable populations, such as low income, minority, women, and children.

Health Management and Policy: Management of health care facilities, services, and organizations; planning and evaluation of public and private sector programs; administration and operations in specialty services, hospitals, ambulatory care, insurance companies, HMOs, and other health-related organizations.

Affiliated Research Centers

In an effort to serve better the community at large, the Graduate School of Public Health sponsors the Institute for Public Health. The institute serves as the school's bridge with the community, facilitating field practice opportunities, community-based research and program evaluations, and a venue for continuing education.

In addition, a number of research centers have been established to integrate the specialized research of its faculty and students. These are the Center for Behavioral Epidemiology and Community Health (CBEACH), and the Institute for Behavioral and Community Health (IBACH). For more information on these centers, see Part Three of this bulletin.

Admission to Master's and Doctoral Study Master of Public Health Degree

Master of Science Degree in Public Health

Master of Public Health Degree and Master of Arts Degree in Latin American Studies

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee as described in Part Two of this bulletin.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Graduate School of Public Health.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all post-secondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
 3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Graduate School of Public Health

Applicants seeking admission to the Master of Public Health, Master of Science, or Master of Public Health and Master of Arts degree in Latin American Studies should contact the Graduate School of Public Health requesting appropriate descriptive materials. Detailed application instructions can be obtained from our website at <http://publichealth.sdsu.edu>.

Students who do not fully meet the requirements for admission with classified graduate standing may be considered for conditionally classified graduate standing upon recommendation of the admissions committee and the graduate adviser.

Master of Social Work Degree and Master of Public Health Degree

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee as described in Part Two of this bulletin.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Social Work.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all post-secondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
- Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

- GRE scores (<http://www.ets.org> SDSU institution code 4682);
- English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Social Work

The following materials should be mailed or delivered to:

School of Social Work
(Attention: Graduate Adviser)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-4119

- A narrative statement as described in Instructions for Applicants;
- Three letters of recommendation.

Ph.D. Degree in Public Health

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee as described in Part Two of this bulletin.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Graduate School of Public Health.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

- Official transcripts (in sealed envelopes) from all post-secondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
- GRE scores (<http://www.ets.org> SDSU institution code 4682);
 - English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Graduate School of Public Health

Prospective applicants for the doctoral program in public health should go to http://publichealth.ucsd.edu/jdp/?page_id=45 for information on application procedures and deadlines.

Section I. Master's Degree Programs

Master of Public Health Degree

Admission to the Degree Curriculum

Applicants seeking admission to public health concentration areas leading to either the Master of Public Health or Master of Science degree should contact the Graduate School of Public Health requesting appropriate descriptive materials. Detailed application instructions can be obtained from <http://publichealth.sdsu.edu>.

Applicants for the biometry concentration are required to have successfully completed undergraduate courses in single and multivariate calculus.

Students who do not fully meet the requirements for admission with classified graduate standing may be considered for conditionally classified graduate standing upon recommendation of the admissions committee and the graduate adviser.

Advancement to Candidacy

All students must: (1) meet the general requirements for advancement to candidacy as described in Part Four of this

bulletin; (2) satisfactorily pass a faculty evaluation of the progress that they are making in their graduate course of study; (3) complete the core courses, Public Health 601, 602, 603, 604, 605 (students in health management and policy will substitute Public Health 641 for Public Health 605, and students in health promotion and behavioral science will substitute Public Health 661 and 662 for Public Health 603); have a grade point average of at least 3.0 and no grade less than a B– in each core course completed; and (4) have completed at least 12 semester units of approved public health coursework.

In addition, the student must be recommended for advancement to candidacy by the faculty of the Graduate School of Public Health.

Specific Requirements for the Master of Public Health Degree

(Major Code: 12141) (SIMS Code: 557301)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 51 units (59 units for students in Health Management and Policy) including: (1) Public Health 601, 602, 603, 604, and 605 (students in health management and policy will substitute Public Health 641 for Public Health 605 and students in health promotion and behavioral science will substitute Public Health 661 and 662 for Public Health 603); (2) a minimum of 21 units of graduate courses in the area of concentration; (3) a minimum of three and a maximum of 12 units of supervised field placement; and (4) electives selected with the approval of the graduate adviser. In addition, Public Health 797, Research, Public Health 798, Special Study, or Public Health 799A, Thesis, must be included in the program as a capstone experience.

Concentrations in biometry, epidemiology, and health promotion and behavioral science require three units of field placement for the Master of Public Health degree. The concentration in health management and policy and the concentration in environmental health both require six units of field placement.

Up to nine units of graduate credit may be accepted in transfer, with the approval of the graduate adviser.

In special circumstances, the graduate adviser may approve one course not on the list of prescribed electives. The substitution must be approved prior to enrollment in the course.

Concentration in Biometry

(SIMS Code: 557308)

Courses required for the concentration:

P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 603	Behavioral and Social Science in Public Health.....	3
P H 604	Environmental Determinants of Human Health	3
P H 605	Health Services Administration.....	3
P H 623	Epidemiological Methods.....	3
P H 627	Advanced Statistical Methods in Public Health.....	3
P H 628	Applications of Multivariate Statistics in Public Health.....	3
P H 650R	Field Practice: Required Community Practice.....	3 (Cr/NC)
STAT 551A	Probability and Mathematical Statistics.....	3
STAT 551B	Probability and Mathematical Statistics.....	3

Prescribed electives: Six units selected from the following public health courses:

P H 649	Border and Global Public Health Surveillance.....	3
P H 700A	Seminar in Public Health: Epidemiology	3
P H 724	Advanced Methods in Epidemiology	3
P H 823	Case-Control Studies.....	3
P H 824	Cohort Studies.....	3

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P H 826	Analysis of Case-Control Studies.....	3
P H 827	Analysis of Cohort Studies.....	3

Prescribed electives: Six units selected from the following statistics courses:

STAT 560	Sample Surveys.....	3
STAT 670A-670B	Advanced Mathematical Statistics.....	3-3
STAT 672	Nonparametric Statistics.....	3
STAT 676	Bayesian Statistics.....	3
STAT 677	Design of Experiments.....	3
STAT 678	Survival Analysis.....	3
STAT 680A-680B	Advanced Biostatistical Methods.....	3-3

Electives: Three units selected with approval of concentration faculty from any public health or statistics course.

Concentration in Environmental Health

(SIMS Code: 557315)

(Registered Environmental Health Specialist Option V Accredited)

Courses required for the concentration:

P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 603	Behavioral and Social Science in Public Health.....	3
P H 604	Environmental Determinants of Human Health.....	3
P H 605	Health Services Administration.....	3
P H 632	Air Quality.....	3
P H 634	Environmental Protection	3
P H 636	Hazardous Waste Management.....	3
P H 638A	Principles of Toxicology	3
P H 639	Water Quality Investigation.....	3
P H 650R	Field Practice: Required Community Practice.....	3 (Cr/NC)
P H 750D	Advanced Field Practice: Environmental Health	3 (Cr/NC)
P H 797	Research.....	3 (Cr/NC/RP)

Prescribed electives: A minimum of nine additional units selected with the approval of the adviser from:

P H 630	Environmental Health Risk Assessment	3
P H 700D	Seminar in Public Health: Environmental Health	3-6
P H 784	Global Environmental Health	3
P H 798	Special Study	1-6 (Cr/NC/RP)

Concentration in Epidemiology

(SIMS Code: 557329)

Courses required for the concentration:

P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 603	Behavioral and Social Science in Public Health.....	3
P H 604	Environmental Determinants of Human Health	3
P H 605	Health Services Administration.....	3
P H 620	SAS for Biostatistics I	3
P H 621	Epidemiology of Infectious Diseases	3
P H 622	Epidemiology of Chronic Diseases.....	3
P H 623	Epidemiological Methods	3
P H 627	Advanced Statistical Methods in Public Health.....	3
P H 629	SAS for Biostatistics II	3
P H 650R	Field Practice: Required Community Practice.....	3 (Cr/NC)

Prescribed electives: A minimum of six units selected from the following public health courses in epidemiology:

P H 625	Control of Infectious Diseases.....	3
P H 626	International Health Epidemiology Practicum.....	3
P H 628	Applications of Multivariate Statistics in Public Health.....	3

P H 649	Border and Global Public Health Surveillance.....	3
P H 724	Advanced Methods in Epidemiology	3
P H 725	Scientific Writing for Epidemiology.....	3 (Cr/NC)
P H 726	HIV/AIDS Epidemiology and Public Health.....	3
P H 728	Applied Data Analysis	3
P H 823	Case-Control Studies.....	3
P H 824	Cohort Studies.....	3

Electives: Up to six units selected with approval of concentration faculty. These electives may include any public health course or selections from the following:

Biology 585
Nutrition 600, 607, 700
Statistics 550, 551A, 560, 610, 672, 677

Concentration in Health Management and Policy

(SIMS Code: 557415)

Graduate Program in Health Management and Policy (CAHME Accredited)

Courses required for the concentration:

P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 603	Behavioral and Social Science in Public Health.....	3
P H 604	Environmental Determinants of Human Health.....	3
P H 641	Introduction to Health Services.....	3
P H 642	Health Insurance and Financing Systems	3
P H 644A	Health Services Organization Management	3
P H 644B	Managing High Performing Health Care Organization.....	3
P H 645	Health Economics	3
P H 646	Health Services Research Methods.....	2
P H 647	Quantitative Methods and Health Data Analysis.....	3
P H 648	Health Policy	3
P H 650R	Field Practice: Required Community Practice.....	3 (Cr/NC)
P H 742A	Health Services Financial Management	3
P H 747	Quality Improvement and Program Evaluation.....	3
P H 748	Health Services Competitive Strategy and Marketing	3
P H 750E	Advanced Field Practice: Health Management and Policy.....	3 (Cr/NC)
P H 797	Research.....	1 (Cr/NC/RP)
P H 798	Special Study.....	2 (Cr/NC/RP)
P H 797	Research.....	3 (Cr/NC/RP)

OR

P H 799A	Thesis.....	3 (Cr/NC/RP)
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Prescribed electives: Three units selected with approval of adviser. In special circumstances, the graduate adviser may approve one course not on the list of prescribed electives. The substitution must be approved prior to enrollment in the course.

P H 700E	Seminar in Public Health: Health Management and Policy.....	3
P H 743	Hospital and Ambulatory Health Systems Management	3

Concentration in Health Promotion and Behavioral Science

(SIMS Code: 557344)

(SIMS Code: 557345 - College of Extended Studies)

Courses required for the concentration:

P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 604	Environmental Determinants of Human Health	3
P H 605	Health Services Administration.....	3
P H 607	Research Methods.....	3

P H 650R	Field Practice: Required Community Practice.....	3 (Cr/NC)
P H 661	Theoretical Foundations of Health Promotion.....	3
P H 662	Motivating Health Behavior	3
P H 663	Health Promotion Communications Theory and Design	3
P H 666	Health Promotion Program Planning and Assessment.....	3

Prescribed electives: A minimum of six units selected from the following public health courses:

P H 664	Health, Society and Human Behavior	3
P H 667	Prevention and Control of Chronic Diseases	3
P H 668	Seminar in Health Promotion Research	3
P H 700F	Seminar in Public Health: Health Promotion and Behavioral Science	3
P H 762	Behavioral Medicine.....	3
P H 797	Research.....	3 (Cr/NC/RP)

Electives: Up to 12 units selected with approval of concentration faculty from any graduate level public health course.

Master of Science Degree in Public Health

Admission to the Degree Curriculum

The M.S. degree in Public Health is offered with a concentration in environmental health sciences.

To be considered for admission to this program, a student must have successfully completed an undergraduate degree (BA or BS) in biology, chemistry, engineering, or other basic or applied natural science. The Graduate School of Public Health should be consulted for specific course preparation recommended for the Master of Science program. In some cases, if an applicant is deficient in certain basic or applied science areas, some remedial coursework can be completed as an unclassified graduate student. However, credits earned by remedial courses cannot be applied toward the required number of units for the master's degree. Students who do not meet all of the above requirements for admission with classified graduate standing may be admitted with conditionally classified graduate standing upon the recommendation of the admissions committee and the graduate adviser. Students so admitted will be advised as to remedial steps to take to satisfy the requirement to achieve classified graduate standing.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. Students completing the Master of Science degree with a concentration in environmental health sciences must (1) have satisfactorily completed at least 12 units of coursework of the 36-unit official program to include at least two courses chosen from the list of courses required with a minimum grade point average of 3.0 (B) and no grade less than a B-; (2) have a thesis proposal which has received the approval of the Graduate School of Public Health faculty.

General Requirements for the Master of Science Degree (Major Code: 12141) (SIMS Code: 557302)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 36 units as listed below. Up to six units may be accepted in transfer, with the approval of the graduate adviser.

Environmental Health Sciences	Units
Required	15
Prescribed electives	12
PH 650R Field Practice*	—
P H 797 (Research)	6
P H 799A (Thesis)	3
Total Units.....	36

*A 3-unit field practice may be taken as an elective by students with approval of the academic adviser.

Specific Requirements for Master of Science Degree Programs

Concentration in Environmental Health Sciences (Major Code: 12141) (SIMS Code: 557394)

Courses required for the concentration: 15 units (Not including six units of P H 797 and three units of P H 799A):

P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 604	Environmental Determinants of Human Health	3
P H 638A	Principles of Toxicology	3
P H 639	Water Quality Investigation.....	3

Prescribed electives: A minimum of 12 units of coursework selected from the following list with the approval of the faculty adviser.

P H 603	Behavioral and Social Science in Public Health	3
P H 605	Health Services Administration.....	3
P H 627	Advanced Statistical Methods in Public Health	3
P H 630	Environmental Health Risk Assessment	3
P H 632	Air Quality.....	3
P H 634	Environmental Protection	3
P H 636	Hazardous Waste Management	3
P H 650R	Field Practice: Required Community Practice.....	3 (Cr/NC)
P H 700D	Seminar in Public Health: Environmental Health	3
P H 784	Global Environmental Health	3
P H 798	Special Study	1-3 (Cr/NC/RP)

In special circumstances, the graduate adviser may approve one course not on the list of prescribed electives. The substitution must be approved prior to enrollment in the course.

Master of Public Health Degree and Master of Arts Degree in Latin American Studies

General Information

The Graduate School of Public Health (GSPH) and the Center for Latin American Studies offer a concurrent graduate program leading to a Master of Public Health (MPH) in Epidemiology, Environmental Health, or Health Promotion and Behavioral Science and a Master of Arts (MA) in Latin American Studies. This concurrent program offers preparation in the fields of public health and Latin American studies for the purpose of promoting health, preventing disease, and enhancing the delivery of social and health services in Latino communities.

Admission to the Degree Curriculum

To request information about the concurrent graduate program in Public Health and Latin American Studies, applicants should contact either the Graduate School of Public Health Director of the MPH/MA program, or the Latin American Studies Director of the M.A. program, San Diego State University. Students must meet the general requirements to graduate study at the university as detailed in Part Two of this bulletin. Application materials are also available from the GSPH website at <http://publichealth.sdsu.edu> or the Center for Latin American Studies website at <http://latinamericanstudies.sdsu.edu>.

Advancement to Candidacy

All students must: (1) meet the general requirements for advancement to candidacy as described in Part Four of this bulletin; (2) pass an evaluation of progress towards the concurrent degree by both GSPH and Latin American Studies advisers; (3) complete all core courses in Public Health and Latin American Studies; (4) have earned at least 24 units of graduate study within the concurrent program with a minimum grade point average of 3.0 and no grade less than a B- in each core course; (5) complete with a grade of B (3.0) or better, Spanish 302 or Portuguese 401, or three units of 500-level or graduate coursework in Spanish, or

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pass the American Council on the Teaching of Foreign Language (ACTFL) oral proficiency examination in either Spanish or Portuguese with a score of 2.0 or above; (6) have been recommended for advancement by the combined faculty advisory committee; (7) have an approved concurrent program of study; and (8) have a thesis proposal approved by the combined faculty advisory committee, which must include at least one faculty member from Latin American Studies and one faculty member from Public Health.

Upon advancement to candidacy, the student will enroll in Public Health or Latin American Studies 797 (Research) and Public Health or Latin American Studies 799A (Thesis). All students in the concurrent degree program are required to complete a thesis. This thesis will incorporate theory, method, and analytic techniques from both Public Health and Latin American Studies. The thesis topic and chair will be determined by the student and the faculty advisory committee.

Specific Requirements for the M.P.H./M.A. Degree

(Major Code: 49062) (SIMS Code: 997310)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 63 units as listed below.

General Requirements					
Total General Units = 39					
Core Courses (18 units)	Prescribed Electives (15 units from at least two departments)				Culminating Experience (6 units)
LATAM 600 (3) LATAM 601 (3) P H 601 (3) P H 602 (3) P H 604 (3) P H 605 (3)	LATAM 550 (3) LATAM 580 (3)* LATAM 696 (3)* LATAM 750 (3) LATAM 795 (3) LATAM 798 (3) ANTH 508 (3) ANTH 520 (3) ANTH 529 (3) ANTH 531 (3) ANTH 533 (3)* ANTH 582 (3)*	ANTH 583 (3)* ANTH 603 (3) ANTH 605 (3) GEOG 506 (3)* GEOG 573 (3)* GEOG 574 (3)* HIST 550 (3) HIST 551 (3) HIST 558 (3) HIST 580 (3)* HIST 640 (3)* POL S 555 (3)	POL S 562 (3) POL S 564 (3) POL S 565 (3) POL S 566 (3) POL S 567 (3) POL S 568 (3) POL S 655 (3) POL S 661 (3)* POL S 667 (3) POL S 696 (3) PORT 535 (3) SOC 522 (3)*	SOC 554 (3) SOC 730 (3)* SPAN 602 (3) SPAN 606 (3) SPAN 751 (3)* SPAN 752 (3) SPAN 760 (3) WMNST 512 (3) WMNST 565 (3) WMNST 580 (3) WMNST 605 (3)	P H 797 or LATAM 797 (3) P H 799A or LATAM 799A (3)

Public Health Concentration Requirements		
Total Units = 24		
(Students must complete one of the following concentrations)		
Epidemiology Concentration (SIMS Code: 997311) Total Epidemiology Units = 24 Required Courses (15 units) P H 603 (3) P H 621 (3) P H 622 (3) P H 623 (3) P H 627 (3) Prescribed Electives (6 units) P H 625 (3) P H 724 (3) P H 626 (3) P H 726 (3) P H 628 (3) P H 823 (3) P H 649 (3) P H 824 (3) P H 700A (3) Electives (3 units) BIOL 585, NUTR 600, 607, 700, STAT 550, 551A, 560, 672, 677, or three units of electives to be selected with approval of the faculty advisory committee.	Health Promotion and Behavioral Science Concentration (SIMS Code: 997314) Total Health Promotion and Behavioral Science Units = 24 Required Courses (15 units) P H 607 (3) P H 661 (3) P H 662 (3) P H 663 (3) P H 666 (3) Prescribed Electives (6 units) P H 664 (3) P H 667 (3) P H 668 (3) P H 700F (3) P H 762 (3) Electives (3 units) Three units to be selected with the approval of the faculty advisory committee.	Environmental Health Concentration (SIMS Code: 997313) Total Environmental Health Units = 24 Required Courses (21 units) P H 603 (3) P H 632 (3) P H 634 (3) P H 636 (3) P H 638A (3) P H 639 (3) P H 650R (3) Cr/NC Prescribed Electives (at least 3 units) P H 630 (3) P H 700D (3) P H 784 (3) P H 798 (1-6) Cr/NC/RP

*Acceptable when of relevant content; check with the Latin American Studies graduate adviser before enrolling.

Master of Social Work Degree and Master of Public Health Degree

General Information

The Graduate School of Public Health and the School of Social Work offer a three year concurrent graduate program leading to a Master of Public Health and a Master of Social Work. The major objective of the concurrent program is to offer preparation in the fields of public health and social work for the purpose of providing the knowledge and skills necessary to promote health, prevent disease, and enhance the delivery of social and health services in the community.

Admission to the Degree Curriculum

Applicants should refer to the admission to master's and doctoral study section for application instructions. In order to be considered for the concurrent MSW/MPH program, applicants must meet the general requirements for admission to graduate study at the university (see Part Four of this bulletin).

Applicants must have a minimum 2.85 grade point average in the last 60 semester or 90 quarter units in undergraduate work completed. Undergraduate preparation in at least one of the following areas is preferred: social work, social or behavioral sciences, or health science. Applicants must have a satisfactory score on the GRE General Test. Applicants already holding another master's degree or higher degree from an acceptable accredited graduate school are exempt from the GRE (see Part Four of this bulletin).

A committee composed of faculty from Public Health and Social Work will make all admission recommendations to the dean of the Division of Graduate Affairs.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. All core courses in public health and social work must be completed prior to advancement. In addition, the student must: (1) have earned at least 24 units of graduate study within the concurrent program with a minimum grade point average of 3.0 and no grade less than a B- in each core course; (2) have been recommended for advancement by the combined faculty advisory committee; received credit (Cr) in field practicum; (3) have a thesis proposal approved by the combined faculty advisory committee.

Upon advancement to candidacy, the student will enroll in Public Health 797 (Research), Social Work 797 (Research), and Public Health 799A (Thesis) or Social Work 799A (Thesis). A thesis incorporating theory, method, and analytic techniques from both disciplines is the culminating experience for the concurrent program leading to the MSW and MPH degrees.

Specific Requirements for the M.S.W./M.P.H. Degree

(Major Code: 12991) (SIMS Code: 998210)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 93 units.

Social Work/Public Health - Health Management and Policy (SIMS Code: 998221)

SWORK 601	Seminar in Social Welfare Policy and Services	3
SWORK 619	Human Behavior in the Social Environment.....	3
SWORK 620A	Seminar in Human Behavior and Social Environment: Direct Practice.....	3
SWORK 630	Social Work Practice: A Generalist Perspective	3
SWORK 631	Social Work Practice: Individuals, Families, and Groups.....	3
SWORK 632	Social Work and Gerontology: Organizations and Communities.....	3
SWORK 650*	Field Practicum	7 (Cr/NC)
SWORK 690/		

GERO 690	Seminar in Research Methods for Social Work and Gerontology	3
SWORK 720	Seminar in Selected Topics in Human Behavior and Social Environment.....	3
SWORK 740/		
GERO 740	Advanced Seminar in Administration and Community Development in Social Work and Gerontology	3
SWORK 755*	Advanced Field Practicum: Social Work Administration and Community Development	8 (Cr/NC/RP)
SWORK 797	Research.....	3 (Cr/NC/RP)
P H 601	Epidemiology.....	3
P H 602	Biostatistics	3
P H 604	Environmental Determinants of Human Health	3
P H 641	Introduction to Health Services.....	3
P H 642	Health Insurance and Financing Systems	3
P H 644A	Health Services Organization Management	3
P H 644B	Managing High Performing Health Care Organization	3
P H 645	Health Economics	3
P H 647	Quantitative Methods and Health Data Analysis	3
P H 648	Health Policy.....	3
P H 742A	Health Services Financial Management	3
P H 747	Quality Improvement and Program Evaluation	3
P H 748	Health Services Competitive Strategy and Marketing	3
P H 797	Research.....	3 (Cr/NC/RP)
P H 799A or	Thesis.....	3 (Cr/NC/RP)
SWORK 799A	Thesis.....	3 (Cr/NC/RP)
Electives: Three units of social work electives - recommended:		
SWORK 745	Advanced Seminar in Selected Topics in Social Work Administration	3

Transfer units will not be accepted toward the concurrent MSW/MPH degree program. Graduate study or degrees obtained previously will not be accepted toward meeting the unit requirements of the concurrent MSW/MPH degree program.

If a student, after entering the concurrent MSW/MPH program returns to a single degree program, all of the requirements for the single degree program must then be met.

*Social Work 650 and 755 must have the approval of the faculty advisory committee. Responsibility for faculty field supervision will be assigned in social work.

Section II. Doctoral Program

WEBSITE: <http://publichealth.sdsu.edu>

A Ph.D. is offered in three concentration areas, epidemiology, global health, and health behavior.

Ph.D. in Public Health with a Concentration in Epidemiology

(Major Code: 12141) (SIMS Code: 557329)

A Ph.D. in public health with a concentration in epidemiology is offered by the joint faculties of the Division of Epidemiology and Biostatistics, Graduate School of Public Health at San Diego State University, and the Department of Family and Preventive Medicine, School of Medicine at the University of California, San Diego (UCSD). Emphasis is on producing graduates with a mastery of the central concepts and analytic processes of epidemiology for application to a multitude of disciplines. Specializations are offered through both campuses, including infectious and chronic diseases, global health, exercise science, medical geography, and behavioral epidemiology. Graduates of this program are competitive for a variety of research, teaching, and community service

positions in areas such as academic institutions, local and state health departments, federal and international agencies, and both privately and publicly sponsored research institutes.

Ph.D. in Public Health with a Concentration in Global Health

(Major Code: 12141) (SIMS Code: 557411)

A Ph.D. in public health with a concentration in global health is offered by the joint faculties of the Graduate School of Public Health at San Diego State University (SDSU), and the School of Medicine at the University of California, San Diego (UCSD). Global health relates to health issues and concerns that transcend national borders, class, race, ethnicity, and culture. Studies in global health stress the commonality of health issues for the United States and international partners, and involve collective, science-based interventions to resolve these issues. Knowledge about how national governments, multi-national organizations, non-governmental organizations, and the private sector must work together is essential to the success of global health programs. Emphasis is on preparing graduates with the fundamental scientific knowledge, ethical understanding, and specific skills to become public health researchers and professional leaders in multiple settings. Proximity to the U.S./Mexico border and the expertise of many current faculty members at both SDSU and UCSD support and encourage a focus on transborder problems including infectious diseases (e.g., HIV, TB, STDs), non-communicable diseases (diabetes, CVD), and migrant health. Students may develop other areas of specialization such as environmental health, health policy, geographic information systems, and maternal/child health. Required and elective courses include global health practice and theory, program planning and evaluation, emerging infectious diseases, advanced epidemiology and biostatistics, research methods, environmental health, and global maternal/child health. In addition to didactic classes at both partner institutions, students will be expected to complete an international field practicum involving research, policy work, or cultural training. Graduates of the program are competitive for a variety of research, teaching and service positions in academic institutions, governmental and non-governmental organizations, and businesses with global health interests both within and outside of the United States.

Ph.D. in Public Health with a Concentration in Health Behavior

(Major Code: 12143) (SIMS Code: 557321)

A Ph.D. in public health with a concentration in health behavior is offered by the joint faculties of the Division of Health Promotion and Behavioral Science, Graduate School of Public Health at San Diego State University, and the Department of Family and Preventive Medicine, School of Medicine at the University of California, San Diego (UCSD). Emphasis is on producing graduates with a mastery of the central concepts and analytic processes of health behavioral sciences. Graduates of the program are expected to establish advanced skills in behavior change theory and practice; to establish expertise in advance qualitative and quantitative research methods; to establish advanced skills in the application of interventions and research methods to health behavior in disenfranchised populations; and to establish skills necessary to understand and change health policy. Graduates of the program are competitive for a variety of research, teaching, and community service positions in areas such as academic institutions, local and state health departments, federal and international agencies, and both privately and publicly sponsored research institutions.

Admission to the Degree Curriculum

Applicants for admission to the doctoral program must present evidence of capacity for graduate study in public health. A multi-disciplinary field such as public health draws from a wide variety of undergraduate majors, but the student is expected to have a strong grounding in the quantitative, behavioral, and biological sciences. A master's degree in an area related to the concentration is preferred. Admission to the program requires acceptance by both institutions on recommendation of the participating units at SDSU and UCSD. It is understood that acceptance of a student

into the joint program by each of the units will be conditioned by their respective standards for graduate admissions and also the available facilities.

To be considered for admission to the joint SDSU-UCSD doctoral program in public health, students must meet the general requirements for admission to both universities with classified graduate standing as outlined in the respective current catalogs. These include (a) an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or equivalent academic preparation, as determined by the deans of the two Divisions of Graduate Affairs; (b) a GPA of at least 3.0 in the last 60 semester (90 quarter) units attempted; (c) good standing at the last institution attended; and (d) an acceptable score (verbal and quantitative) on the GRE General Test. Preference will be given to students with an M.P.H. or M.S. degree in behavioral science or epidemiology.

Residency Requirements

After formal admission to the joint doctoral program, the student must spend at least one academic year in full-time residence on each of the two campuses. The definition of residence must be in accord with the regulations of San Diego State University and University of California, San Diego.

Advisory Committee

Upon admission to the program, the steering committee of the two institutions will establish an advisory committee for the student. This committee will consist of three faculty members chosen jointly from the two institutions. In consultation with the student, the committee will develop the student's course of study, prepare and guide a preliminary examination, and establish the student's joint qualifying committee. At least one member of the advisory committee must be from SDSU and one from UCSD.

Course Requirements

Core courses in behavioral science, epidemiology, and biostatistics are offered at both SDSU and UCSD. Prior to taking the qualifying examination, every student is expected to have a firm understanding of modern principles of public health as well as knowledge and application of epidemiology, behavioral science, and biostatistical methods. Elective coursework may be selected from offerings at both campuses.

Course Requirements for Students with an Existing M.P.H. or M.S. Degree in Epidemiology

Epidemiology: Public Health 623, 724, 800 (Doctoral Seminar in Epidemiology), 823, 824; and six-unit UCSD course series in applied epidemiology (FPM 258A, 258B, 258C, 259A, 259B, 259C).

Biostatistics: Public Health 628 and six units in advanced biostatistics.

Electives: 24 units in specialty area.

Graduate Assistantship in Epidemiology: 6 units

Dissertation Research and Proposal: 15 units

Students who do not possess an existing M.P.H. or M.S. degree in epidemiology are required to take the following additional courses: Public Health 601, 602, 621, 622, and 627. Once the student is matriculated at SDSU, the final curriculum will be determined by the doctoral advising committee.

Preliminary Examinations

The preliminary examinations will test knowledge and the application of epidemiology and biostatistical methods.

Course Requirements for Students with an Existing M.P.H. Degree

Global Health: Public Health 628, 649, 700A, 780, 781, 800, 880, and the following courses offered at UCSD (nine units): FPM 258A, 258B, 258C, (FPM 270-Cultural Perceptions about Health and Disease TBD Mixed Methods Research, FPM 287-Emerging/Re-Emerging Global Infectious Diseases; others with consent of instructor; Practicum/Independent Study).

Electives: Six or more units in specialty areas to include Public Health 784 and courses selected from other departments with the approval of the adviser.

International Practicum: Field Experience: 3-12 units

Dissertation Research and Proposal: 15 units

Students who do not possess an existing M.P.H. or M.S. degree in Public Health are required to take the following additional courses: Public Health 601, 602, and 627. Once the student is matriculated at SDSU, the final curriculum will be determined by the doctoral advising committee.

Course Requirements for Students with an Existing M.P.H. or M.S. Degree in Behavioral Science

Health Behavioral Science: Public Health 800 (Doctoral Seminar in Health Behavior), 800 (Professional Seminar in Public Health), 861, 862, 864, 867; and a series of health behavior and epidemiology courses at UCSD (36 units).

Biostatistics: Public Health 627 and 798 (SAS or SPSS) for both semesters.

Electives: 3 units

Graduate Assistantship: 6 units

Dissertation Research and Proposal: 15 units

Students who do not possess an existing M.P.H. or M.S. degree are required to take one epidemiology course. Once the student is matriculated at SDSU, the final curriculum will be determined by the doctoral advising committee..

Doctoral Committee

A five-member committee, composed of faculty at SDSU and UCSD, will be recommended by the advisory committee for each student and approved by the graduate deans from both campuses. One member must be non-program faculty and there must be at least one tenured faculty member from each university. The student's dissertation adviser will chair the committee. At least two members must be from SDSU and two from UCSD.

The doctoral committee will conduct a written and oral comprehensive qualifying examination, which will evaluate the student's understanding and knowledge of his or her special area of behavioral science, epidemiologic interest, or global health. The purpose of this examination is for the student to demonstrate competence in the major research field.

The doctoral committee may specify a course of study to strengthen any weaknesses identified during the qualifying examination. Upon successful completion of the qualifying examination the student must make application to the Division of Graduate Affairs at UCSD for advancement to candidacy. Upon payment of the candidacy fee to UCSD, and after approval by the graduate deans on both campuses, the student will be notified of advancement to candidacy by the UCSD Division of Graduate Affairs.

Faculty

Faculty members of the cooperating institutions participate in the joint doctoral program in Public Health Epidemiology and are available for direction of research and as members of joint doctoral committees.

Dissertation

Following successful completion of the qualifying examination and advancement to candidacy, the major remaining requirement for the Ph.D. degree will be satisfactory completion of a dissertation consisting of original and significant research carried out under the guidance of the dissertation adviser, who may be from either SDSU or UCSD. The doctoral committee becomes the dissertation committee after the student's advancement to candidacy. Requirements currently in force at SDSU and UCSD must be met for completing and filing the dissertation.

Award of the Degree

The Doctor of Philosophy degree will be awarded jointly by the Trustees of The California State University and the Regents of the University of California in the names of both institutions.

Financial Support

The Graduate School of Public Health at SDSU and the Department of Community and Family Medicine at UCSD endeavors to provide financial support that will enable all students to devote full time to research training and study.

Medical Students Interested in Obtaining the Master of Public Health (M.P.H.) Degree

San Diego State University, Graduate School of Public Health, and University of California, San Diego, School of Medicine, offer a collaborative education effort to enable UCSD medical students to also obtain the M.P.H. degree. The program is designed for those UCSD medical students who anticipate careers in one or more of the following fields: public health, preventive medicine, maternal and child health, epidemiology, environmental health, health promotion and behavioral science, health management and policy, or aerospace medicine, and to those with special interest in such areas as nutrition, demography, international health, and behavioral medicine. In addition, it provides public health training for those planning careers in family practice, pediatrics, general internal medicine, and other aspects of primary care who wish to enhance their knowledge and skills in clinical preventive medicine and in the managerial aspects of health care. The M.P.H. degree or an equivalent academic experience is required for certification by the American Board of Preventive Medicine.

With approval, certain UCSD courses can be counted toward fulfilling the M.P.H. degree requirement at the SDSU Graduate School of Public Health.

Further information about these programs can be obtained from the Dean of Students, Maria Savoia, M.D., 858-534-3703.

Section III. Certificate Programs**Preventive Medicine Residency Certificate**

(SIMS Code: 555501)

The purpose of the Preventive Medicine Residency Certificate is to train physicians to assure that they have adequate knowledge, attitudes, and skills germane to general preventive medicine and occupational medicine. The physician will be eligible to sit for the board certification examination administered by the American Board of Preventive Medicine.

In addition to satisfying the requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, the student seeking admission to the preventive medicine residency must (1) fulfill the admission requirements given above, and (2) have completed a Doctor of Medicine degree from an accredited institution.

The student will be expected to complete a three year course of study which involves the completion of a clinical year provided by the University of California, San Diego, School of Medicine, the completion of an academic year leading to the Master of Public Health degree provided by the Graduate School of Public Health at San Diego State University, and appropriate practicum experiences under the supervision of faculty of one of the two cooperating institutions.

The student is expected to complete the number of units required for the Master of Public Health degree as well as those additional units which may be prescribed in order to complete the practicum year, i.e., Public Health 750.

The student is expected to have maintained a 3.0 average overall in the coursework at the Graduate School of Public Health and at the University of California, San Diego, School of Medicine.

Preventive Medicine Residency Faculty:

Linda L. Hill, M.D., M.P.H., Director, Adjunct Associate Professor of Public Health

Kevin M. Patrick, M.D., M.S., Adjunct Professor of Public Health, Associate Director

Wilma Wooten, M.D., M.P.H., Adjunct Associate Professor of Public Health

Public Health Certificate

(SIMS Code: 557389)

The Advanced Certificate in Public Health offers individuals the opportunity to understand core public health principles, prepare for responsibilities or promotion in a public health setting, or offers an opportunity to determine if the Master of Public Health degree program is of interest to pursue. The advanced certificate also provides additional formal education in the public health field. Students who successfully complete the advanced

Public Health

certificate program can apply all 15 units to the Master of Public Health degree if admitted into the degree program in the Graduate School of Public Health.

Admission Requirements

Applicants must have earned a bachelor's degree in biology, chemistry, health science, nursing, social work, or another health-related degree. A degree in a discipline not specifically mentioned must be approved by the Director of the Graduate School of Public Health. Applications may be submitted prior to entering the advanced certificate program or before the completion of nine semester units of coursework that is applicable to the advanced certificate in public health.

Contact the Graduate School of Public Health admissions coordinator for further information.

Course Requirements (15 units)

Students must complete the following courses with a grade of C (2.0) or better and a GPA of 3.0 or better.

P H 601	Epidemiology.....	3
P H 602	Biostatistics.....	3
P H 603	Behavioral and Social Science in Public Health.....	3
P H 604	Environmental Determinants of Human Health.....	3
P H 605	Health Services Administration.....	3

Courses Acceptable for Master's and Doctoral Degree Programs (P H)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

P H 601. Epidemiology (3)

Prerequisite: Consent of instructor.

Distribution and determinants of diseases; role of epidemiology in public health. Descriptive, analytic, and experimental epidemiology.

P H 602. Biostatistics (3)

Prerequisite: Consent of instructor.

Statistical reasoning applied to public health; probability, hypothesis testing, regression and correlation, analysis of variance, measurement theory and modeling.

P H 603. Behavioral and Social Science in Public Health (3)

Prerequisites: Psychology 316, 340, and Sociology 436.

Role of psychological, social and environmental variables in health and illness. Multifactorial psychosocial model of disease susceptibility.

P H 604. Environmental Determinants of Human Health (3)

Environmental determinants and their influence on human health. Biological, physical, and chemical factors which affect the health of a community.

P H 605. Health Services Administration (3)

Overview of health services administration and delivery in U.S. Characteristics of utilization of health care, financing and system structure, types of providers, nonfinancial resources, and assessment and regulation.

P H 607. Research Methods (3)

Two lectures and three hours of laboratory.

Prerequisites: Public Health 601, 661, and consent of instructor. Recommended: Public Health 602.

Direct observation measurement, group and intensive experimental designs. Laboratory exercises and proposal writing applicable to public health.

P H 620. SAS for Biostatistics I (3)

Prerequisite: Credit or concurrent registration in Public Health 602.

Programming in SAS. Analysis, processing, and reading of biomedical data.

P H 621. Epidemiology of Infectious Diseases (3)

Prerequisite: Public Health 601.

Utilizing selected infectious diseases and environmental settings, provides scientific background on which epidemiological investigations and control measures are based.

P H 622. Epidemiology of Chronic Diseases (3)

Prerequisite: Public Health 601.

Epidemiology of selected chronic diseases.

P H 623. Epidemiological Methods (3)

Prerequisites: Public Health 602, 621 or 622.

Topics include: analysis of descriptive data, design of studies, evaluation of data, development of biological models. Examples of both acute and chronic diseases.

P H 624A. Emergency Preparedness and Response I (3)

Prerequisite: Classified graduate standing.

Dynamics of natural and man-made disaster management to include planning, organization, management of relief services, and emergency service organizations. Prevention, mitigation, and response to emergency situations, both nationally and internationally.

P H 625. Control of Infectious Diseases (3)

Prerequisite: Public Health 621.

Theoretical and practical experience in techniques available for control of infectious diseases.

P H 626. International Health Epidemiology Practicum (3)

One lecture and two hours of activity.

Prerequisites: Public Health 601 and 602.

Integrated public health experience with US and Mexican graduate student and faculty teams, culminating with four days in Mexico. International public health projects in underserved indigenous populations.

P H 627. Advanced Statistical Methods in Public Health (3)

Prerequisite: Public Health 602.

Applications of advanced statistical methods for analysis of public health and biomedical data. Topics include multiple linear regression, analysis of variance, logistic regression, and introduction to survival analysis.

P H 628. Applications of Multivariate Statistics in Public Health (3)

Prerequisite: Public Health 627.

Statistical methods for multivariate problems in public health including regression diagnostics, cluster analysis, discriminant analysis, principal components, multivariate discrete analysis and Poisson regression. Computer applications included.

P H 629. SAS for Biostatistics II (3)

Prerequisites: Public Health 620 and credit or concurrent registration in Public Health 602.

Advanced programming in SAS. Higher-level analyses, processing, and readings of biomedical data. (Formerly numbered Public Health 700A.)

P H 630. Environmental Health Risk Assessment (3)

Four major steps of risk assessment to include hazard identification, dose-response assessment, exposure assessment, and risk characterization. Will also include risk communication and risk management in environmental arena.

P H 632. Air Quality (3)

Properties of airborne gases, vapors, and particulate matter. Effects of air pollution on community. Mobile and stationary sources of air pollution. Meteorology and dispersion of air pollutants. Ambient air quality standards.

P H 634. Environmental Protection (3)

Rationale and mechanisms for control of environmental hazards in areas of food protection and vector control, solid waste, and community issues.

P H 635. Environmental and Disaster Medicine (3)

Etiology, diagnosis of disease, and stress in the modern global environment. Detection and control of intentional biological, chemical disasters, and nuclear threats.

P H 636. Hazardous Waste Management (3)

Rationale, methods, and regulations governing the proper management of hazardous and toxic wastes.

P H 638A. Principles of Toxicology (3)

Dose-response and other principles for evaluating the effects of toxic chemicals on mammalian organ systems.

P H 639. Water Quality Investigation (3)

Two lectures and three hours of laboratory.

Human health problems associated with water usage and with various aquatic environments.

P H 641. Introduction to Health Services (3)

Health care systems in the U.S. Underlying needs, insurance and uninsurance, public programs, reimbursement, managed care, resources, providers, regulation outcome measurement and evaluation, and health policy issues.

P H 642. Health Insurance and Financing Systems (3)

Prerequisite: Public Health 641.

U.S. healthcare financial systems at macro-level. Principles of public programs and private health insurance, types of reimbursement for healthcare organizations and providers, issues of cost containment, effects of uninsurance and underinsurance, and financial practices of other advanced nations. (Formerly numbered Public Health 742B.)

P H 644A. Health Services Organization Management (3)

Prerequisite: Credit or concurrent registration in Public Health 641.

Structure and functioning of organizations that provide and finance health services using a systems theory approach to visions/goals, strategies, structure, and processes. Functions of managers in health care organizations, focusing on interpersonal, informational, decision, ethical, and conflict resolution roles. (Formerly numbered Public Health 644.)

P H 644B. Managing High Performing Health Care Organization (3)

Prerequisites: Public Health 641 and 644A.

Applications of management theory to health care organizations. Organizational change for performance, behavior, quality management, law and ethics, human resource management, and information technology.

P H 645. Health Economics (3)

Prerequisite: Public Health 641.

Economics of health care, including supply and demand factors, efficiency, incentives facing physicians, hospitals, and health plans, economic evaluation of provider performance, health workforce issues, and cost-effectiveness analysis.

P H 646. Health Services Research Methods (2)

Prerequisite: Graduate standing.

Effectiveness of interventions. Changes in delivery, financing, and organization of health care. Analysis of large data sets related to health care industry.

P H 647. Quantitative Methods and Health Data Analysis (3)

Prerequisites: Public Health 602 and 641.

Quantitative methods and data analyses in health services administration. Topics include decision analysis, forecasting and regression, project management techniques, data analysis, and data and information management applications.

P H 648. Health Policy (3)

Prerequisite: Credit or concurrent registration in Public Health 641.

History and future of health policy. Research on major health policy issues including economic, social, ethical, and political forces that influence priorities and decisions. Role of government and private sector in health care.

P H 649. Border and Global Public Health Surveillance (3)

Prerequisites: Public Health 601 and 602.

Data sources for border and global surveillance, including hospital system syndromic data. Methods of data quality control, data analysis, and alerting and communication of information.

P H 650. Field Practice (3-6) Cr/NC

Field instruction in public health settings. Application of public health principles and skills to practical problems. Maximum credit six units of Public Health 650 applicable to a master's degree.

- A. Epidemiology
- F. Health Promotion and Behavioral Science
- R. Required Community Practice

P H 661. Theoretical Foundations of Health Promotion (3)

Prerequisite: Public Health 290.

Psychological, sociological, economic, and political theories relevant to the mission and processes of health promotion.

P H 662. Motivating Health Behavior (3)

Prerequisite: Public Health 303.

Application of behavioral change techniques and health education methodology to health promotion targeting individuals and whole communities.

P H 663. Health Promotion Communications Theory and Design (3)

Prerequisite: Public Health 402.

Theory, design and implementation of health education communications in community contexts. Extensive use of student design, analysis, and projects.

P H 664. Health, Society and Human Behavior (3)

Prerequisites: Psychology 101, Sociology 101.

Historical and contemporary examination of health problems of individuals and communities. Health needs, resources; impact of society on health and health on society.

P H 666. Health Promotion Program Planning and Assessment (3)

Prerequisite: Public Health 661.

Program planning and assessment, theories, systems and procedures relevant to health promotion and education.

P H 667. Prevention and Control of Chronic Diseases (3)

Prerequisites: Public Health 601 and 602.

Health promotion strategies for modification of individual behaviors and social practices to lower risk of chronic disease.

P H 668. Seminar in Health Promotion Research (3)

Prerequisite: Graduate standing in public health.

Philosophical, ethical and methodological issues in current health promotion research and services.

P H 672. Public Health Program Evaluation (3)

Prerequisite: Graduate standing. Recommended: Public Health 666.

Activities, processes, and skills to include communicating results, contextual issues, design, methods, steps, and ensuring summative findings are used.

P H 682. Geographic Information Systems and Public Health Spatial Analysis (3)

Two lectures and two hours of activity.

Prerequisites: Public Health 601 and 602.

Theoretical concepts of geographic information systems (GIS) and applications of GIS in public health. ArcGIS 9 software to illustrate the capabilities and uses of GIS in both academic research and regulatory decision making.

P H 696. Contemporary Topics in Public Health (1-3)

Intensive study in specific areas of public health and health services administration. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

P H 700. Seminar in Public Health (1-3)

Prerequisites: Public Health 601, 602, and 603.

Investigation of current problems in one of the fields of public health. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit nine units of Public Health 700 applicable to a master's degree. These units may be in a single concentration area or any of the public health concentration areas.

- A. Epidemiology
- D. Environmental Health
- E. Health Management and Policy
- F. Health Promotion and Behavioral Science
- G. Preventive Medicine

Public Health

P H 724. Advanced Methods in Epidemiology (3)

Prerequisites: Public Health 601, 623, and 627.

In-depth methodological issues in performance and interpretation of epidemiologic studies. Study design, cluster analysis, effect modification, accuracy and precision, adjustment of attributable risk, life tables, Kaplan-Meier, Cox proportional hazards modeling, and meta-analysis.

P H 725. Scientific Writing for Epidemiology (3) Cr/NC

Prerequisite: Completion of one year of master's level coursework in epidemiology or biometry.

Prepares students to generate a feasible hypothesis, perform, organize and write a literature review, and summarize proposed methodology. Topics include research development and organization, finding data sources, principles of scientific writing and revising, plagiarism, and citation management.

P H 726. HIV/AIDS Epidemiology and Public Health (3)

Prerequisite: Public Health 601. Recommended: Public Health 621.

State-of-the-art review of HIV and AIDS within a public health framework. Biology, transmission, host susceptibility, screening and surveillance, domestic and international epidemiology, study design, intervention, and options for prevention (including community-based trials).

P H 728. Applied Data Analysis (3)

Prerequisite: Public Health 627 with a grade of B (3.0) or better.

Public health data and presentation of results. Linear regression, logistic regression for binary, missing data analysis, nominal and ordinal data, and survival analysis.

P H 742A. Health Services Financial Management (3)

Prerequisite: Graduate standing in public health.

Financial reporting statement including balance sheet and income statement. Financial management indicators including discounted cash flow analysis, long-term debt financing, equity valuation, risk and return, capital budgeting, financial forecasting, and short-term financing.

P H 743. Hospital and Ambulatory Systems Management (3)

Prerequisites: Public Health 641 and 644A.

Organization and management of hospitals, integrated health-care systems, medical group practices, and other ambulatory or outpatient facilities. Emphasis on service provision, programs, and plans. San Diego regional healthcare organizations highlighted.

P H 747. Quality Improvement and Program Evaluation (3)

Prerequisite: Public Health 647.

Health services quality measurement and improvement to include quality systems policy and management; outcomes and performance measurement; process quality improvement methods; program evaluation methods; development of evidenced-based practices and electronic medical records; and administrative databases.

P H 748. Health Services Competitive Strategy and Marketing (3)

Prerequisite: Public Health 644B.

Ways in which healthcare organizations can gain and sustain competitive advantage. Both organization and service level competition and strategies/tactics examined.

P H 750. Advanced Field Practice (3-6) Cr/NC

Prerequisite: Public Health 650.

Field instruction in public health setting. Application of public health principles and skills to public health problems. Maximum credit six units of Public Health 750 applicable to a master's degree.

- A. Epidemiology
- D. Environmental Health
- E. Health Management and Policy
- F. Health Promotion and Behavioral Science

P H 762. Behavioral Medicine (3)

Prerequisites: Public Health 661 and 662.

Behavioral management approaches to health care problems. Diseases and conditions that arise from physical, psychological and environmental causes; behavioral interventions that attenuate disease process and improve compliance.

P H 780. Global Health I (3)

Prerequisites: Public Health 601 and 602.

Principles of global health. Challenges of urbanization and migration to include demography; main causes of morbidity and mortality, including infectious agents; reproductive health; cultural diversity; and global preparedness.

P H 781. Global Health II (3)

Prerequisite: Public Health 780.

Global health to include trends and impacts of chronic physical and mental disease; infectious diseases of global importance; nutritional status and disease patterns; resource constrained environments, and design of international health organizations and systems.

P H 784. Global Environmental Health (3)

Environmental causes of morbidity and mortality worldwide and strategies to reduce incidence. Regional differences due to anthropogenic and naturally occurring disease agents interacting with differential population susceptibility to disease. Measurement tools for environmental health research in less developed areas of the world.

P H 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of instructor.

Research in one of the fields of public health. Maximum credit six units applicable to a master's degree. Maximum combined credit six units of Public Health 797 and 798 applicable to a master's degree.

P H 798. Special Study (1-6) Cr/NC/RP

Prerequisite: Consent of staff, to be arranged with the director and instructor.

Individual study. Maximum credit six units applicable to a master's degree. Maximum combined credit six units of Public Health 797 and 798 applicable to a master's degree.

P H 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

P H 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

P H 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

DOCTORAL COURSES

P H 800. Seminar (1-9)

Prerequisite: Admission to the doctoral program.

Investigation of a particular topic or issue, emphasis on empirical research; topic to be announced in the *Class Schedule*. Maximum credit nine units applicable to a doctoral degree.

P H 823. Case-Control Studies (3)

Prerequisites: Public Health 601, 623, and 627. Recommended: Public Health 724.

Design, conduct, and analysis of case-control studies. Methodologic issues, control of biases and misclassification errors, proper use of interpretation of stratification and logistic regression in study of diseases of multifactorial etiology.

P H 824. Cohort Studies (3)

Prerequisites: Public Health 601, 623, and 627. Recommended: Public Health 724.

Design, analysis, and application of cohort studies. Cohort study designs, importance of time-varying exposures and outcomes, external and internal validity, and in-depth treatment of approaches to analysis based on cohort sampling methods.

P H 826. Analysis of Case-Control Studies (3)

Prerequisites: Public Health 623 and 627.

Statistical methods and applications for analyzing case-control studies. Use of conditional and unconditional logistic regression and approaches for incorporating confounding and interaction in models. Computer applications included.

P H 827. Analysis of Cohort Studies (3)

Prerequisites: Public Health 623 and 627.

Statistical models for analyzing cohort studies including general regression methodology, generalized linear models, generalized estimating equations, random effects models and survival analysis. Emphasis on conceptual understanding of these models, implementation with statistical software, and interpretation.

P H 850. Global Health Practicum (3)

Prerequisites: Public Health 781, 800, 880.

An international research activity, program evaluation, participation in a multinational organization internship, or field work with government or non-governmental organizations. This practicum is required for completion of the Ph.D. in global health under supervision of program directors.

P H 861. Behavioral Measurement (3)

Techniques for assessing behaviors related to health and health risks in key content areas. Multimodel assessment and validation procedures. Students will demonstrate ability to create new measures based on theory and reliability and validity of these measures, using multimodel assessment procedures.

P H 862. Advanced Theoretical Foundations of Health Behavior Research and Applications (3)

Philosophy of science, role of theory development and design and conduct of research, with integration of behavioral and biological theories serving as foundation for behavioral science in public health.

P H 863. Advanced Communication Technology as Applied to Health Behavioral Interventions (3)

Prerequisites: Public Health 663, admission to the doctoral program, and consent of instructor.

Health communication theory and social marketing practice as applied to public health behavior change. Audience segmentation, formative research channel selection, and message development applied to chronic and infectious disease prevention.

P H 864. Advanced Research Methods (3)

Prerequisite: Admission to the Joint Doctoral Program in public health with a concentration in health behavior.

Research process and study design to include conceptualizing research questions and hypotheses, observational study designs, quasi-experimental and experimental study designs, and introduction to qualitative research and mixed methods.

P H 866. Global Issues in Health Behavior Research and Application (3)

Prerequisites: Admission to the doctoral program and consent of instructor.

Epidemics in infectious diseases, environmental degradation, population explosion, and other problems with behavioral links threaten the world's population. Global issues such as the role of behavior in disease, bioterrorism, and war.

P H 867. Seminar: Grantwriting for Health Behavior Researchers (3)

Prerequisite: Admission to Ph.D. in public health with a concentration in health behavior.

Skills needed to compete for health behavior research funding. Grant proposal writing, submission, review, and revision processes. Background information about grant review procedures and funding mechanisms, with emphasis on national institutes of health.

P H 880. Seminar: Program Planning and Evaluation in International Settings (3)

Prerequisite: Public Health 780.

Theory and skills to evaluate research and service programs in international settings to include methods in program planning and evaluation, distinctions between research and evaluation, special considerations in cross-cultural settings, and transadaptation of planning and evaluation materials.

P H 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Independent investigation in the general field of the dissertation.

P H 898. Doctoral Special Study (1-9) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Individual study in the field of specialization. Maximum credit nine units applicable to the doctoral degree.

P H 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

Regulatory Affairs

IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 619

TELEPHONE: 619-594-6030 / **FAX:** 619-594-6381

E-MAIL: regsci@sdsu.edu

WEBSITE: <http://regsci.sdsu.edu>

Graduate Adviser: Lorah W. Bodie, Ed.D.

General Information

Regulatory science programs focus on training students in areas related to development, manufacturing, and marketing of biopharmaceutical, pharmaceutical, and medical device products. Programs address research and workforce needs of companies as they make the transition from research and development to manufacturing and production, including the legal, ethical, and regulatory elements that both guide and restrict the industry.

The courses for the degree program are offered fully online through special sessions with enrollment through the College of Extended Studies. Since the degree program is self-supporting, the fee structure for courses is different than for courses in programs that are supported with state funding. For more information on degree program admissions, courses, requirements, and fees visit <http://regsci.sdsu.edu>.

The degree program provides a comprehensive background in regulatory science necessary for regulatory affairs professionals to competently address regulatory requirements associated with pharmaceutical, biopharmaceutical, and medical device products. Regulatory affairs courses focus on practical applications and approaches for compliance with development, testing, manufacturing and post-marketing surveillance laws and requirements enforced by the Food and Drug Administration (FDA) and international counterparts.

Upon successful completion of the degree program, students will have detailed knowledge and understanding of current regulations and their practical application to the development and commercialization of drug, biologic, and medical device products.

Master of Science Degree in Regulatory Affairs

(Offered through the College of Extended Studies)

The Master of Science degree in regulatory affairs is offered through the College of Sciences. The coursework in this curriculum is offered only in special sessions. Students in special session courses enroll through the College of Extended Studies and follow a fee structure that is different from that for regularly matriculated students. For more information, contact the regulatory affairs program adviser.

This degree program provides a comprehensive background in regulatory science with the additional training and experience required of regulatory affairs professionals to address federal, state, and international regulatory statutes and laws.

The degree offering focuses on laws and regulations imposed by regulatory agencies related to drug discovery, development, testing, and manufacture of products for commercial distribution. Also included are requirements for ongoing post-marketing surveillance. The degree program will provide students with detailed knowledge and understanding of current regulations and their practical application to the development and commercialization of drug, biologics, and medical device products.

Admission to Graduate Study

All students must satisfy the general admission and examination requirements for admission to the university with classified graduate standing, as described in Part Two of the *Graduate Bulletin*. In addition, the applicant must satisfy the following requirements before being considered for admission to classified graduate standing by the admissions review committee of the department.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Regulatory Affairs office.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Regulatory Affairs

The following materials should be mailed or delivered to:

Master of Science in Regulatory Affairs

Director of Regulatory Affairs Programs
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1010

1. Two letters of recommendation sent from persons who are knowledgeable about the candidate's potential for success in graduate study;
2. Applicant essay that describes the applicant's purpose in pursuing graduate studies in regulatory affairs and relationship to personal and career objectives;
3. Curriculum vitae or resume listing employment or volunteer experience relevant to the proposed new degree major program;
4. One set of official transcripts (in addition to those sent to Graduate Admissions).

Candidates for admission will typically come from one of the disciplines offered in the life and physical sciences and engineering. In some cases, candidates who have not fully met admissions requirements may be admitted with conditionally classified standing, subject to space availability, after consideration of those who meet the requirements for classified graduate standing. Students so admitted will be advised as to the conditions of their admission and the time allowed to achieve full classified graduate standing.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree

(Major Code: 49045) (SIMS Code: 779901)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program consisting of a minimum of 39 units as follows:

1. Complete 30 units of required courses.

RA 601	Pharmaceutical, Biotechnology, and Medical Device Industries.....	3
RA 602	Food and Drug Law.....	3
RA 605	Medical/Scientific Writing for Life Science Professionals.....	3
RA 750	Leadership for Change and Continuous Improvement.....	3
RA 770	Current Good Manufacturing Practices – General Concepts.....	3
RA 773	Medical Device Regulations.....	3
OR		
RA 774	Investigational and Marketing Applications for Drugs and Biologics.....	3
RA 775	Clinical Trials: Issues in Design, Conduct, and Evaluation.....	3
RA 779	International Regulatory Affairs.....	3
RA 781	Ethics for Life Science Professionals.....	3
RA 783	Effective Communication for Life Science Professionals.....	3
2. Complete six units of electives from the following courses.

RA 696	Advanced Topics in Regulatory Affairs.....	1-4
RA 705	Project Planning for the Biomedical Industries.....	3
RA 771	Current Good Manufacturing Practices – Advanced Topics.....	3
RA 772	Post-Approval Activities.....	3
RA 773	Medical Device Regulations.....	3
OR		
RA 774	Investigational and Marketing Applications for Drugs and Biologics.....	3
RA 776	Validation Aspects of Drugs, Biologics, and Device Product Development and Manufacturing, Including Computer Related Systems and Software.....	3
RA 778	Quality Control and Quality Assurance: Pharmaceuticals, Biologics, and Medical Devices.....	3
RA 797	Research.....	(1-3) Cr/NC/RP
RA 798	Special Study.....	(1-3) Cr/NC/RP
3. Complete three units of Regulatory Affairs 798, capstone project.

Advanced Certificate in Intellectual Property and Regulatory Affairs

(SIMS Code: 779903)

The Advanced Certificate in Intellectual Property and Regulatory Affairs is a joint certificate program designed for life science professionals who have no formal legal training and whose research or work responsibilities or ambition would benefit from knowledge of regulatory affairs and intellectual property law. Ideal candidates include working professionals with a minimum of two years of experience in the biotechnology, medical technology, or related life sciences industries, who will benefit from learning the fundamentals of intellectual property and regulatory

law but who do not wish to become attorneys. The certificate program provides flexibility to design an individualized plan of study from designated course offerings from SDSU's College of Sciences and the University of San Diego (USD) School of Law to best enhance each candidate's professional development. Candidates will take courses at SDSU and the law school, designing individual plans from a broad list of existing courses. Regulatory Affairs courses in the advanced certificate may be applied to the Master of Science degree in regulatory affairs.

Admission Requirements

Applicants must have completed a bachelor's degree from an accredited institution in the United States or its equivalent from a foreign institution.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Regulatory Affairs office.

Graduate Admissions

The following materials should be submitted directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

Regulatory Affairs

The following materials should be mailed or delivered to:

Master of Science in Regulatory Affairs
Director of Regulatory Science Programs
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1010

1. Official transcripts for all university and colleges attended (undergraduate and graduate);
2. Curriculum vitae or resume, demonstrating a minimum of two years of professional experience in the biotechnology, medical technology, or related life science industries;
3. Personal statement detailing the applicant's interest in and qualification for the program;
4. One or more letters of recommendation.

Specific Requirements

To receive the certificate, candidates must successfully complete the following courses (minimum of 13 credits/units) and earn a minimum grade point average of 3.0 or better.

RA 602	Food and Drug Law.....	3
RA 781	Ethics for Healthcare Professionals.....	3
LWIP 535 (USD)	Survey of Pharmaceutical Law and Policy.....	2
LWIP 570 (USD)	Patent Law.....	3
Elective(s) from approved list of courses offered at SDSU or USD School of Law (two units required).		

The certificate candidate must earn a cumulative grade point average of B (3.0) or better and earn a passing grade in all courses. Certificate candidate must also meet all credit, course, grade point average, and other academic requirements to be eligible for conferral of the certificate.

A maximum of nine units may be transferred to a master's degree program with consent of the graduate adviser and Dean of Graduate Affairs, when applicable.

Advanced Certificate in Regulatory Affairs (Offered through the College of Extended Studies) (SIMS Code: 779902)

The Advanced Certificate in Regulatory Affairs requires the completion of Regulatory Affairs 601, 602, 770, and 781. Regulatory Affairs 601 covers the various steps in the development process for pharmaceuticals, biologics, and medical devices, with an understanding of the regulatory impact on this process. Regulatory Affairs 602 provides a basic knowledge of the laws and regulations governing these industries. In Regulatory Affairs 770, students learn the basic concepts of good manufacturing practices. Regulatory Affairs 781 examines some of the most significant ethical issues confronting life science professionals. Courses in the Advanced Certificate in Regulatory Affairs may be applied to the Master of Science degree in regulatory affairs. To enroll in this certificate program, call 619-594-6030.

Courses Acceptable for Master's Degree Program in Regulatory Affairs (R A)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

GRADUATE COURSES

R A 600. Seminar (1-3)

Prerequisite: Consent of graduate adviser.

An intensive study in specific areas of regulatory affairs. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

R A 601. Pharmaceutical, Biotechnology, and Medical Device Industries (3)

Introduction and foundational knowledge of biotechnology, medical device, and pharmaceutical industries. Commercialization-associated activities to include chemical synthesis, control, drug discovery, manufacturing, marketing, post-marketing surveillance, quality assurance, and regulatory affairs. Company organization and product development.

R A 602. Food and Drug Law (3)

Prerequisite: Regulatory Affairs 601.

Laws and regulations enforced by the FDA for biotechnology, medical device, pharmaceutical, and related industries. Federal Food, Drug, and Cosmetic Act, Freedom of Information Act, related laws, and the U.S. legal system. Laws and regulations affecting biologics, cosmetics, devices and diagnostics, drugs, foods, tobacco products, and veterinary products. Combination products, import/export requirements, international regulations, orphan products, and product liability.

R A 605. Medical/Scientific Writing for Life Science Professionals (3)

Prerequisite: Regulatory Affairs 601.

Writing conducted during the development of a new biologic or drug. Effective writing of regulatory documents to include analyses of scientific literature for critical appraisal of drugs, informed consents, and reports of laboratory results.

R A 696. Advanced Topics in Regulatory Affairs (1-4)

Prerequisite: Consent of graduate adviser.

Selected topics in regulatory affairs. May be repeated with new content. See *Class Schedule* for specific content. Credit for 696 applicable to a master's degree with approval of the graduate adviser.

R A 705. Project Planning for the Biomedical Industries (3)

Prerequisite: Graduate standing.

Introduction to strategies for effective management, planning, and scheduling of regulatory affairs activities and related tasks associated with project development in biomedical industries.

R A 750. Leadership for Change and Continuous Improvement (3)

Prerequisite: Graduate standing.

Control and facilitation of change at a variety of levels within the biotechnology industry. Strategic improvements to increase competitive advantages. Process improvement concepts and methods, quality and statistical tools, and their applications to leadership, manufacturing, and production challenges.

R A 770. Current Good Manufacturing Practices - General Concepts (3)

Prerequisite: Regulatory Affairs 602.

Interpretation and application of current Good Manufacturing Practices (GMPs) to drug substance and drug product manufacture. Differentiation between full and appropriate GMPs required for clinical supplies production and commercial manufacturing. Variances between FDA and European Union requirements for the control and manufacture of pharmaceuticals. Aseptic regulatory inspections processing and preparation.

R A 771. Current Good Manufacturing Practices - Advanced Topics (3)

Prerequisite: Regulatory Affairs 770.

Expanded analysis of current Good Manufacturing Practice regulations to assure quality of marketed drug and biological products. Discussions of FDA methods of enforcement by inspections of manufacturing establishments.

R A 772. Post-Approval Activities (3)

Prerequisite: Regulatory Affairs 602.

FDA and FTC rules and regulations governing advertising, labeling, and promotion for biologics, generic, over-the-counter, and prescription drugs; and medical devices. Annual reporting requirements, changes to approved marketing applications, Good Manufacturing Practice inspections, post-marketing adverse reaction reporting, product recalls, and risk management.

R A 773. Medical Device Regulations (3)

Prerequisite: Regulatory Affairs 602.

Introduction to regulatory affairs requirements for the medical device industry through stages of product development. FDA medical device regulations, terminology, timelines, and actual steps followed by regulatory affairs professionals. Commercial, operational, and strategic aspects of the regulatory approval process for in vitro diagnostics (IVD) and medical devices. Marketing, regulatory intelligence, risk management, and strategic considerations. Maximum combined credit six units of Regulatory Affairs 773 and 774 applicable to a master's degree.

R A 774. Investigational and Marketing Applications for Drugs and Biologics (3)

Prerequisite: Regulatory Affairs 602.

Content, planning, requirements, and strategy for developing and preparing Food and Drug Administration regulatory submissions to include biologics license applications (BLA), device pre-market applications (PMA), device premarket notifications (510(k)), investigational device exemptions (IDE), investigational new drug applications (IND), new drug applications (NDA). Combination product submissions, future submission trends, and risk management. Maximum combined credit six units of Regulatory Affairs 773 and 774 applicable to a master's degree.

R A 775. Clinical Trials: Issues in Design, Conduct, and Evaluation (3)

Prerequisite: Regulatory Affairs 602.

Issues in conduct, design, and evaluation of clinical trials by biotechnology, medical device, and pharmaceutical companies for marketing approval of products being studied in human subjects. Macro view of clinical trials within corporate, legal, and regulatory environments. Key steps required to develop and execute a successful clinical development program.



R A 776. Validation Aspects of Drugs, Biologics, and Device Product Development and Manufacturing, Including Computer Related Systems and Software (3)

Prerequisite: Regulatory Affairs 602.

Validation in biotechnology, medical device, and pharmaceutical industries. Validation of computerized systems, equipment, facilities and critical utilities, laboratory instrumentation, and manufacturing processes. Regulatory requirements for validation, maintenance of validation programs, validation master plan, and writing effective validation protocols.

R A 778. Quality Control and Quality Assurance: Pharmaceuticals, Biologics, and Medical Devices (3)

Prerequisite: Regulatory Affairs 602.

Quality and compliance functions in biotechnology and pharmaceutical companies to include out-of-specification results, developing product specifications, and writing compliant process deviations. Good Laboratory Practices (GLPs). Graded approach for Active Pharmaceutical Ingredients (APIs) manufacturing. Biologics, drugs, and medical device regulations. Quality control (QC) role vs. quality assurance (QA) role. Current trends in industry.

R A 779. International Regulatory Affairs (3)

Prerequisite: Regulatory Affairs 602.

International medical device regulations to include those in the European Union and other key areas of the world that pertain to the development and commercialization of biologics, medical devices, and pharmaceuticals.

R A 781. Ethics for Life Science Professionals (3)

Prerequisite: Regulatory Affairs 602.

Ethical issues confronting regulatory affairs professionals. Development of capacities to apply, generalize, and translate principles and ideas to modern biomedical practice. Responsible conduct surrounding clinical trials, human subjects, informed consent, institutional animal care and use, institutional review boards, trial design, and whistle blowing.

R A 783. Effective Communication for Life Science Professionals (3)

Prerequisite: Regulatory Affairs 602.

Advanced interpersonal, oral, and written communication strategies for the regulatory affairs business environment. Audience analysis, barriers to communication, and cultural considerations. Communication types to include email communications, executive summaries, informational documentation, persuasive arguments, research-based proposals, and visuals for presentations.

R A 797. Research (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Research in the area of regulatory sciences. Maximum credit six units applicable to a master's degree.

R A 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of graduate adviser.

Individual study. Maximum credit six units applicable to a master's degree.

R A 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of thesis or project for the master's degree.

R A 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also students must be registered in the course when the completed thesis or project is granted final approval.

Religious Studies

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 662
TELEPHONE: 619-594-5185 / **FAX:** 619-594-1004
E-MAIL: religious.studies@sdsu.edu
WEBSITE: <http://religion.sdsu.edu>

Faculty

Risa Levitt Kohn, Ph.D., Professor of Religious Studies,
Chair of Department
Khaleel Mohammed, Ph.D., Professor of Religious Studies
Sthaneshwar Timalisina, Ph.D., Professor of Religious Studies
Rebecca C. Bartel, Ph.D., Assistant Professor of Religious Studies
Drew J. Thomases, Ph.D., Assistant Professor of Religious Studies
Delroi E. Whitaker, Jr., Ph.D., Assistant Professor of Religious Studies

General Information

The department offers advanced coursework in religious studies which may be used toward fulfilling advanced degree requirements in Interdisciplinary Studies and in other departments with the approval of the student's graduate adviser.

Courses (REL S)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NOTE: Courses for Area (A) Texts; or Area (B) Traditions; or Area (C) Theories and Methods; or Area (D) Critical Issues in Religion, are identified in the course title as (A), (B), (C), or (D).

REL S 507. The Reformation (A) (B) (C) (D) (3) (Same course as History 507)

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.

REL S 581. Major Theme (A) (B) (C) (D) (3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of a theme or motif selected from major religious traditions. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

REL S 583. Major Tradition (A) (B) (C) (D) (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 (A) (B) (C) (D) (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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

REL S 696. Seminar in Selected Topics (3)

Prerequisites: Twelve upper division units in religious studies.

Directed research in a major problem or movement in religious studies. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

REL S 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Twelve upper division units in religious studies and consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Rhetoric and Writing Studies

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Storm Hall West 141

TELEPHONE: 619-594-6515 / **FAX:** 619-594-6530

Faculty

Suzanne M. Bordelon, Ph.D., Professor of Rhetoric and Writing Studies, Chair of Department

Glen A. McClish, Ph.D., Professor of Rhetoric and Writing Studies (Graduate Adviser)

Cezar M. Ornatowski, Ph.D., Professor of Rhetoric and Writing Studies

Linn K. Bekins, Ph.D., Associate Professor of Rhetoric and Writing Studies, Professional Writing Program Director

Richard B. Boyd, Ph.D., Associate Professor of Rhetoric and Writing Studies (Undergraduate Adviser)

Paul A. Minifee, Ph.D., Associate Professor of Rhetoric and Writing Studies

Kathryn M. Valentine, Ph.D. Associate Professor of Rhetoric and Writing Studies

Christopher C. Werry, Ph.D., Associate Professor of Rhetoric and Writing Studies, Lower Division Writing Director

Jennifer A. Sheppard, Ph.D., Lecturer in Rhetoric and Writing Studies

Associateships

Graduate teaching associateships (GTA) in rhetoric and writing studies are available to a limited number of qualified graduate students. Teaching associates must have completed Rhetoric and Writing Studies 609, attend Rhetoric and Writing Studies 796A during the first semester of their associateship, and have the consent of the RWS GTA program director. Additional information is available on the Department of Rhetoric and Writing Studies website (<http://rhetoric.sdsu.edu/employment/index.htm>).

General Information

The Department of Rhetoric and Writing Studies, in the College of Arts and Letters, offers graduate study leading to the Master of Arts degree in rhetoric and writing studies. Rhetoric is a field of research, teaching, and theory concerned broadly with literacy and spoken, visual, and written discourse. It emphasizes the centrality of discourse (especially written discourse) to all disciplinary and cultural communities, knowledge formation, learning, and professional work. The program builds on the diverse interests of faculty in the Department of Rhetoric and Writing Studies to bring together rhetorical theory, history of rhetoric, composition studies, literacy, writing pedagogy, discourse theory, professional writing, and writing in the disciplines. Coursework provides a coherent platform for inquiry into the diverse ways in which literacy and writing are used in academic, professional, and cultural contexts.

The Master of Arts degree in rhetoric and writing studies is a 30-unit program that provides preparation for students wanting to pursue doctoral-level study in the area of rhetoric and writing studies or in related disciplines or for students who plan to terminate their studies at the M.A. level. In addition to the general program, the curriculum offers specializations in the teaching of writing and in professional writing.

The general program is a customizable path that prepares students for advanced study or a range of careers in writing-related fields. The specialization in the teaching of writing prepares students to teach writing in colleges and furthers the professional development of secondary school teachers. The specialization in professional writing prepares students for careers as professional writers in business, industry, public agencies, and government

within the broader disciplinary context of rhetoric and writing studies, as well as to teach technical and professional writing at colleges or in specific training settings.

The program includes a teaching internship for students in the teaching of writing specialization and a technical writing internship for students in the technical and professional writing specialization and, where appropriate, special study based on work experience.

Admission to Graduate Study

Students will be admitted only in the fall semester. See Rhetoric and Writing Studies website for deadlines: http://rhetoric.sdsu.edu/graduate/how_to_apply.htm.

To be admitted into the program, students must satisfy the general requirements for admission to graduate study at the university with classified graduate standing, as described in Part Two of this bulletin. In addition applicants must have a GPA of at least 3.0 in the last 60 semester units (90 quarter units) attempted in their bachelor's degree studies.

Students applying for admission should electronically submit the university application available at <http://www2.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Rhetoric and Writing Studies.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Rhetoric and Writing Studies

The following admissions materials must be submitted electronically via Cal State Apply at <https://www2.calstate.edu/apply>:

1. Letter of application;
2. Curriculum vitae or resume;
3. A 750-1000 word statement of purpose;
4. Writing sample (minimum 10 pages total, in one or separate documents);
5. Three letters of recommendation.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as stated in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 15013)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, a student must complete a program of study approved by the department's graduate adviser. The program must consist of at least 30 units, with at least 18 units

Rhetoric and Writing Studies

of 600- and 700-level courses. All students must complete 15 units of core courses and 15 units specific to the general program or a specialization.

Core Courses

Required courses (15 units):

RWS 600	Reading and Writing Rhetorically.....	3
RWS 601A	History of Rhetoric I	3
RWS 602	Modern Rhetoric and Composition Studies.....	3
RWS 640	Research Methods in Rhetoric and Writing Studies.....	3
RWS 790	M. A. Examination Preparation.....	(3) Cr/NC
OR		
RWS 799A	Thesis or Project.....	(3) Cr/NC/RP

General Program

(SIMS Code: 112201)

Electives (15 units)

Fifteen units of thematically focused electives selected with the approval of the Department of Rhetoric and Writing Studies graduate adviser.

Specialization in the Teaching of Writing

(SIMS Code: 112202)

Required courses (9 units):

RWS 512	Writing Center Practice, Research, and Theory.....	3
RWS 609	Theory and Practice of Teaching Composition	3
RWS 796A	Teaching Internship	(3) Cr/NC
OR		
RWS 798	Special Study.....	(3) Cr/NC/RP (based on work experience, where appropriate and with the approval of the Department of Rhetoric and Writing Studies graduate adviser)

Electives (6 units)

Six units of thematically focused electives selected with the approval of the Department of Rhetoric and Writing Studies graduate adviser.

Specialization in Professional Writing

(SIMS Code: 112203)

Required courses (9 units):

RWS 504	Advanced Professional Writing.....	3
RWS 607	Writing Project Management.....	3
RWS 796B	Writing Internship	3
OR		
RWS 798	Special Study.....	(3) Cr/NC/RP (Based on work experience, where appropriate and with the approval of the Department of Rhetoric and Writing Studies graduate adviser.)

Electives (6 units)

Six units of thematically focused electives selected with the approval of the Department of Rhetoric and Writing Studies graduate adviser.

Advanced Certificate in the Teaching of Writing

(SIMS Code: 112299)

Offered by the Department of Rhetoric and Writing Studies, the Advanced Certificate in the Teaching of Writing provides opportunities for teachers, scholars, and other professionals to expand their knowledge of rhetoric, expository texts, and composition instruction.

Applicants to the program must have completed a bachelor's degree from an accredited institution.

Students in the program must complete 12 units of coursework with a minimum of six units at the 600-level or above. A minimum grade point average of 3.0 or better must be maintained in certificate coursework, with no less than a C grade in any course.

Required courses (6 units):

RWS 600	Reading and Writing Rhetorically.....	3
RWS 509	Teaching Composition in Secondary Schools.....	3
OR		
RWS 609	Theory and Practice of Teaching Composition	3

Electives (6 units)

Three units selected from:

LING 550	Theory and Practice of English as a Second Language.....	3
LING 652	Second Language Acquisition	3
LING 653	ESL Reading and Writing (3)	

Three units selected from:

RWS 512	Writing Center Practice, Research, and Theory.....	3
RWS 601A	History of Rhetoric I	3
RWS 602	Modern Rhetoric and Composition Studies.....	3
RWS 640	Research Methods in Rhetoric and Writing Studies.....	3

The certificate adviser in the Department of Rhetoric and Writing Studies is responsible for evaluating applications and advising students.

Up to 12 units of coursework taken as part of the certificate program, with the approval of the graduate adviser, may be applied to the Master of Arts degree in rhetoric and writing studies with a specialization in the teaching of writing.

Courses Acceptable for Master's Degree Program in Rhetoric and Writing Studies

(RWS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

RWS 500W. Advanced Writing Strategies (3)

Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Placement Assessment with a score of 8 or higher (or earned a grade of C (2.0) or better in Rhetoric and Writing Studies 280, 281 [or Linguistics 281] if score on WPA was 6 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 writing course focusing on how meaning is negotiated and claims are argued in academic and public discourse.

RWS 501. Editing (3)

Prerequisite: Graduate standing or Rhetoric and Writing Studies 200 [or English 200] or 250.

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 503W. Professional Writing (3)

Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Placement Assessment with a score of 8 or higher (or earned a grade of C (2.0) or better in Rhetoric and Writing Studies 280, 281 [or Linguistics 281] if score on WPA was 6 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 professional writing, including clear and concise style and rhetorical strategies of designing effective workplace documents. Practice composing memos, reports, proposals.

RWS 504. Advanced Professional Writing (3)

Prerequisite: Rhetoric and Writing Studies 500W, 503W, or graduate standing.

Advanced principles in professional writing, including user and task analysis for interface design; document design and typography; collaboration and interpersonal communication; ethical and cultural issues; usability testing; and small group management.

RWS 506. Writing Internship (3) Cr/NC

Prerequisites: Rhetoric and Writing Studies 500W or 503W. Admission to a minor, major, certificate, or graduate program in rhetoric and writing studies.

Intensive experience in writing and editing documents while student is under the joint supervision of an academic instructor and a professional coordinator.

RWS 507. Professional Communication in Nonprofit Organizations (3)

Prerequisites: Rhetoric and Writing Studies 200 [or English 200] and 250. Upper division or graduate standing.

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 Requirement for students who have completed 60 units; completed Writing Placement Assessment with a score of 8 or higher (or earned a grade of C (2.0) or better in Rhetoric and Writing Studies 280, 281 [or Linguistics 281] if score on WPA was 6 or lower); and completed General Education requirements in Composition and Critical Thinking. Admission to a minor, major, certificate, or graduate program in rhetoric and writing studies. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Scientific writing in academic and empirical research settings to include clear and concise writing style, rhetorical strategies, and writing of research reports, proposals, conference presentations, and articles.

RWS 509. Teaching Composition in Secondary Schools (3)

Prerequisite: Rhetoric and Writing Studies 200 [or English 200] or graduate standing.

Theory and practice of teaching and assessing composition in secondary schools and comparable contexts.

RWS 510. Rhetoric and Culture (3)

Interplay of rhetoric, writing, and culture, including race/ethnicity, gender, class, and other cultural considerations. Role of texts in shaping and shifting community knowledge, identity, norms, and values.

RWS 512. Writing Center Practice, Research, and Theory (3)

Prerequisite: Rhetoric and Writing Studies 200 [or English 200] with a grade of C (2.0) or better or satisfaction of Graduation Writing Assessment Requirement.

Practice, research, and theory of coaching writing in various settings. Individual and small group writing projects and research. Maximum credit six units.

RWS 543. Rhetoric of Visual Composing (3)

Prerequisite: Rhetoric and Writing Studies 250 or graduate standing.

Analyzing, communicating, and organizing complex data, educational content, ideas, and specialized information through multimodal and visual means. Data visualization, shaping content, and usability for diverse audiences and contexts.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

RWS 599. Special Study (1-3) Cr/NC

Directed individual study. Maximum credit six units.

GRADUATE COURSES

RWS 600. Reading and Writing Rhetorically (3)

Theoretical frameworks, including rhetorical theory and discourse analysis, for analyzing and interpreting academic, professional, and everyday texts. Critical reading and writing of texts and rhetorical dimensions of knowledge production.

RWS 601A. History of Rhetoric I (3)

Prerequisite: Good standing in an approved graduate program.

Major works of rhetoric from Greek Sophists through Imperial Rome. Themes and core concepts that shape the discipline of rhetoric. How the works informed pedagogy and public life. Relationship of historical texts to contemporary rhetorical practices.

RWS 602. Modern Rhetoric and Composition Studies (3)

Twentieth century rhetoric and composition theory, and their relationship to study and teaching of written discourse.

RWS 607. Writing Project Management (3)

Prerequisite: Rhetoric and Writing Studies 504.

Managing technical documentation projects. Collaborative writing. Managing writing teams. Conducting task analysis, estimating cost and schedule, preparing document plans, gathering information, testing documents, and managing project documentation. (Formerly numbered Rhetoric and Writing Studies 505.)

RWS 609. Theory and Practice of Teaching Composition (3)

Research and theory in field of teaching composition. Links research to classroom practice. Prepares students to teach composition at SDSU and other post-secondary settings.

Prerequisite for teaching associateships in Rhetoric and Writing Studies.

RWS 640. Research Methods in Rhetoric and Writing Studies (3)

Prerequisites: Rhetoric and Writing Studies 600, 601A, 602.

Research methods and critical approaches to advanced study of rhetoric and writing, with attention to basic reference works, scholarly journals, and bibliographical techniques.

RWS 696. Topics in Rhetoric and Writing Studies (3)

Intensive study in specific areas of rhetoric and writing studies. May be repeated with new content and consent of instructor. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

RWS 730. Gender and Rhetoric (3)

Prerequisites: Rhetoric and Writing Studies 600 and 601A.

Explores intersection of gender, rhetoric, and power. Topics include rhetoric and the body, gendered differences in rhetorical styles, roles gender plays in professional relationships, culture, and the media. Interrogation of gender as an analytical category.

RWS 744. Seminar in Issues in Rhetorical Theory and Practice (3)

Prerequisites: Rhetoric and Writing Studies 600, 601A, 602.

Problems in teaching of rhetoric and writing, both practical and theoretical. Advanced study of topics such as teaching practices, genres, stylistics, or a major figure. May be repeated with new content. Maximum credit six units.

RWS 790. M.A. Examination Preparation (3) Cr/NC

Prerequisites: Twenty-four units of graduate coursework that counts toward the M.A. degree in rhetoric and writing studies. Student must be in final semester of study for master's degree.

Survey of selected essays, articles, and texts in rhetoric, composition studies, and professional and technical writing included in the M.A. examination. Emphasis on rhetorical analysis of texts and contexts (historical, social, professional, and technical). Strongly recommended for students taking the M.A. examination.

RWS 796A. Teaching Internship (3) Cr/NC

Prerequisites: Completion of Rhetoric and Writing Studies 609 and consent of graduate adviser.

Teaching experience while student is under joint supervision of college-level teacher and academic instructor. Maximum credit three units.

RWS 796B. Writing Internship (3) Cr/NC

Prerequisites: Rhetoric and Writing Studies 501, 504, 600, 601A, 602, and consent of graduate director.

Intensive experience in writing and editing documents while student is under joint supervision of an academic instructor and a professional coordinator. Maximum credit three units applicable to a master's degree.

RWS 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

RWS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

RWS 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

RWS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Russian

IN THE DEPARTMENT OF EUROPEAN STUDIES
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Storm Hall 224A
TELEPHONE: 619-594-5111 / **FAX:** 619-594-8006
E-MAIL: russian.coord@sdsu.edu
WEBSITE: <http://russian.sdsu.edu>

Chair of Department: Clarissa Clò, Ph.D.

Faculty

Veronica Shapovalov, Ph.D., Professor of Russian

General Information

The Department of European Studies offers coursework in Russian which may be used toward fulfilling advanced degree requirements in Interdisciplinary Studies and other departments with the approval of the student's graduate adviser.

Courses (RUSSN)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

All upper division courses in Russian are taught in Russian unless otherwise stated.

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)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

RUSSN 696. Topics in Russian Studies (3)

Intensive study in specific areas of Russian. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

RUSSN 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Eighteen upper division units in Russian and consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

Social Work

IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Hepner Hall 119

TELEPHONE: (619) 594-6865

WEBSITE: <http://socialwork.sdsu.edu>

Accredited by the Council on Social Work Education.

Faculty

Melinda M. Hohman, Ph.D., Professor of Social Work,
Director of School

Jong Won Min, Ph.D., Professor of Social Work,
Associate Director of School

David W. Engstrom, Ph.D., Professor of Social Work

Mario D. Garrett, Ph.D., Professor of Social Work

Loring P. Jones, D.S.W., Professor of Social Work

Sally G. Mathiesen, Ph.D., Professor of Social Work

Thomas R. Packard, D.S.W., Professor of Social Work, Emeritus

Mark B. Reed, Ph.D., Professor of Social Work and Interim
Associate Dean for Research of the College of Health and
Human Services

Maria L. Zuniga, Ph.D., Professor of Social Work

Daniel J. Finnegan, Ph.D., Associate Professor of Social Work,
Emeritus

Unjeong Ko, Ph.D., Associate Professor of Social Work
(Graduate Adviser)

Yawen Li, Ph.D., Associate Professor of Social Work

Lucinda A. Rasmussen, Ph.D., Associate Professor of Social Work
Ijeoma Nwabuzor Ogbonnaya, Ph.D., Assistant Professor of
Social Work

Lianne Urada, Ph.D., Assistant Professor of Social Work

Margarita Villagrana, Ph.D., Assistant Professor of Social Work

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Social Work.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes or electronically) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Social Work Degree

The following admissions materials must be submitted electronically:

1. Department application;
2. Letters of recommendation;
3. Personal statement.

For information regarding the admissions process, visit the school website at <http://socialwork.sdsu.edu>.

Master of Social Work Degree and Juris Doctor Degree

The following admissions materials must be submitted electronically:

1. Department application;
2. Letters of recommendation;
3. Personal statement;
4. Contact the Office of Admissions at California Western School of Law at 619-525-1463 for a separate application.

For information regarding the admissions process, visit the school website at <http://socialwork.sdsu.edu>.

Master of Social Work Degree and Master of Public Health Degree

The following admissions materials must be submitted electronically:

1. Department application;
2. Personal statement;
3. Three letters of recommendation.

Students must also complete the SOPHAS application found on the public health website at <https://publichealth.sdsu.edu/programs/mph/admissions-mps-ms>. Applications for the concurrent program are reviewed by the Graduate School of Public Health and School of Social Work.

Section I. Master's Degree Programs

Master of Social Work Degree

General Information

The School of Social Work offers a 38-60 unit accredited graduate program leading to a Master of Social Work (MSW) degree. Coursework is typically completed in one to four years. The program qualifies students to apply for the Licensed Clinical Social Worker (LCSW) certification process by the Board of Behavioral Science Examiners of the State of California. The School of Social Work provides an ongoing assessment of learning outcomes for its program at <http://socialwork.sdsu.edu/degrees-programs/outcomes-assessment>.

Students may earn the Master of Social Work degree in one of two ways described below. Students who have earned an undergraduate social work degree from an accredited university may be eligible to complete the requirements for the Master of Social Work degree via the 38 unit advanced standing program. All other students are required to complete the standard 60 units Master of Social Work program.

The Master of Social Work degree prepares advanced practitioners in specialized areas of direct practice or administration/community development. Students will be well-grounded in the values and ethics of the profession; have multiple competencies that can be used in a wide variety of settings, with systems of various sizes and with diverse and vulnerable populations; able to critically examine issues of economic, environmental, and social justice and committed to the realization of human rights; utilize research evidence in practice decision making; committed to life-long professional development; and prepared to be leaders in the profession. Special emphasis is currently given to those human needs that relate to the continuum of health care and well-being, families in transition, and social/environmental factors that create stress as it relates to individuals and groups in the home, workplace, and community.

The school is extensively involved in local, state, and national human service issues through individual faculty research and community intervention programs. In addition, the school has made commitments in the area of chemical dependency research and practice through the Center for Alcohol and Other Drug Studies and policy research and intervention through the Social Policy Institute.

Admission to the Degree Curriculum

General Admission Requirements

All applicants must file two separate applications: one to the Office of Enrollment Services to include transcripts, GRE scores, and English language scores if applicable, and one to the School of Social Work. The School of Social Work will not consider any applicant who has not filed both required applications. Specific university admission requirements and procedures are outlined in Part Two of this bulletin. Specific School of Social Work requirements and procedures are outlined in the admissions packet as well as on the School of Social Work website at <http://socialwork.sdsu.edu>.

Please be advised that the school does not accept life/work experience in lieu of any course requirements. The school does not accept transfer credit based on life/work experience. Students will have to retake any courses for which life/work experience was counted.

In addition to the regular application material, the university requires all applicants to take the Graduate Record Examination for admission. Scores must be reported to both the university and the School of Social Work. Applicants will not be reviewed by the school unless GRE scores are on file. Applicants must have taken and successfully passed one course in statistics and a liberal arts foundation at the undergraduate or graduate level.

The school cannot accept any student into the program until the university has accepted them into graduate study. For this reason, we urge interested students to submit both applications as early as possible.

Advanced Standing Program Admission Requirements

The School of Social Work admits new students to the advanced standing program only in the summer each academic year. Application deadlines are posted on the School of Social Work website at <http://socialwork.sdsu.edu>.

Students admitted to the advanced standing program must possess an undergraduate degree in social work that was earned within five years of admission to the advanced standing program. The undergraduate degree must come from a program that is accredited by the Council on Social Work Education and the cumulative GPA for social work courses taken must be at least 3.0 (B or better).

Students not admitted to the advanced standing program may be considered for admission to the standard 60 unit program.

Standard 60 Unit Master of Social Work Admission Requirements

The School of Social Work admits new students to the standard 60 unit Master of Social Work program only in the fall of each academic year. Application deadlines are posted on the School of Social Work website at <http://socialwork.sdsu.edu>. Students currently enrolled or on leave of absence from CSWE accredited schools of social work are considered transfer students and can apply to the program for either fall or spring admission.

Advancement to Candidacy

Advanced Standing Program

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, the student must (1) have satisfactorily completed the six unit foundation bridge courses (SWORK 670 and 671) with a minimum grade of B; (2) have earned at least 15 units of post-baccalaureate study with a minimum grade point average of 3.0 (B) and received a grade of satisfactory progress (SP) or credit (Cr) in four units of SWORK 750 or 755; (3) have no incomplete grades; (4) be recommended by the faculty of the School of Social Work; (5) be approved for advancement by the Division of Graduate Affairs.

Standard 60 Unit Master of Social Work Program

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, the student must (1) have earned at least 28 units of post-baccalaureate study with a minimum grade point average of 3.0 (B) and received credit (Cr) in field practicum; (2) have no incomplete grades; (3) be recommended by the faculty of the School of Social Work; (4) be approved for advancement by the Division of Graduate Affairs; (5) successfully pass a written qualifying examination given during the spring semester in which the student completes 31 units of 600-level coursework.

Specific Requirements for the Master of Social Work Degree

(Major Code: 21041) (SIMS Code: 558201)

Advanced Standing Program

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree in Part Four of this bulletin, the student must complete an officially approved 38 unit course of study to include:

1. Six units in generalist/foundation bridge courses (SWORK 670 and 671);
2. Three units of computer applications for social work (SWORK 610);
3. 29 units of advanced study, to include:
 - a. 3 units of advanced social policy (SWORK 702);
 - b. 0-3 units of advanced human behavior (SWORK 720);
 - c. 3 units of advanced research methods (SWORK 791 or 797);
 - d. 6-9 units of social work electives (SWORK 758, 780, 781, 798, 799A);
 - e. 14 units from one of the following social work methods focus areas (Administration and Community Development or Direct Practice).

Administration and Community Development

(Major Code: 21041) (SIMS Code: 558210)

SWORK 720	Seminar in Selected Topics in Human Behavior and Social Environment: Civic Engagement and Society Environments.....	3
SWORK 740/	Advanced Seminar in Administration.....	3
AND		
GERO 740	Community Development in Social Work and Gerontology	3
SWORK 755	Advanced Field Practicum: Social Work Administration and Community Development.....(4) Cr/NC/RP (Taken twice)	

Direct Practice

(Major Code: 21041) (SIMS Code: 558207)

SWORK 739	Advanced Seminar in Social Work Practice with Families	3
SWORK 744	Advanced Seminar in Selected Topics in Direct Practice Social Work.....	3
SWORK 750	Advanced Field Practicum: Direct Practice Social Work	(4) Cr/NC/RP (Taken twice)

In addition to the above courses, students must complete either a Thesis (Plan A) or a comprehensive written examination (Plan B). Students completing Plan A may count Social Work 799A as three units of elective.

At least 30 units of the program must be completed in residence at San Diego State University. A maximum of six units is transferable from another accredited graduate program in social work.

Social Work

Six units of elective credit may be taken from other schools or departments within the university with the consent of the graduate adviser. See student handbook for specific elective policies. To receive the degree, students must earn a 3.0 (B) grade point average in academic courses and demonstrate professional competence for required practicum (Cr for all semesters).

In addition, the National Association of Social Workers (NASW) Code of Ethics represents the professional standards of the MSW program. The NASW Code of Ethics is available in the student handbook. All students are expected to know and adhere to its principles of professional conduct. Students who knowingly or unknowingly violate any part of the ethical code may be dismissed from the program without further qualification regardless of coursework, research, or other academic achievement.

Standard 60 Unit Master of Social Work Program or 63 Unit Master of Social Work Program with Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH) Certificate

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree in Part Four of this bulletin, the student must complete an officially approved 60 unit course of study (63 units for EC-TEaMH focus) to include:

1. 28 units in generalist/foundation bridge courses (SWORK 601, 619, 620A, 630, 631, 632, 650, 690 [or GERO 690]);
2. Three units of computer applications for social work (SWORK 610);
3. 29 units of advanced study (or 32 units for EC-TEaMH focus), to include:
 - a. 3 units of advanced social policy (SWORK 702);
 - b. 0-6 units of advanced human behavior (SWORK 720); or (CFD 670 and 671 for EC-TEaMH focus);
 - c. 3 units of advanced research methods (SWORK 791 or 797);
 - d. 6-9 units of social work electives (SWORK 758, 780, 781, 798, 799A), or (CSP 623 and SPED 676 for EC-TEaMH focus);
 - e. 14 units from one of the following social work methods focus areas (Administration and Community Development or Direct Practice or Direct Practice/ EC-TEaMH).

Administration and Community Development (Major Code: 21041) (SIMS Code: 558211)

SWORK 720	Seminar in Selected Topics in Human Behavior and Social Environment: Civic Engagement and Society Environments.....3
SWORK 740	Advanced Seminar in Administration.....3
AND	
GERO 740	Community Development in Social Work and Gerontology3
SWORK 755	Advanced Field Practicum: Social Work Administration and Community Development.....(4) Cr/NC/RP (Taken twice)

Direct Practice (Major Code: 21041) (SIMS Code: 558205)

SWORK 739	Advanced Seminar in Social Work Practice with Families3
SWORK 744	Advanced Seminar in Selected Topics in Direct Practice Social Work.....3
SWORK 750	Advanced Field Practicum: Direct Practice Social Work(4) Cr/NC/RP (Taken twice)

Direct Practice/EC-TEaMH (Major Code: 21041) (SIMS Code: 558212)

SWORK 739	Advanced Seminar in Social Work Practice with Families.....3
SWORK 744	Advanced Seminar in Selected Topics in Direct Practice Social Work.....3
SWORK 798	Special Study.....(2) Cr/NC/RP
CFD 697	Advanced Field Experiences... (6) Cr/NC

In addition to the above courses, students must complete either a Thesis (Plan A) or a comprehensive written examination (Plan B). Students completing Plan A may count Social Work 799A as three units of elective.

At least 30 units of the program must be completed in residence at San Diego State University. A maximum of 30 units is transferable from another accredited graduate program in social work.

Six units of elective credit may be taken from other schools or departments within the university with the consent of the graduate adviser. See student handbook for specific elective policies. To receive the degree, students must earn a 3.0 (B) grade point average in academic courses and demonstrate professional competence for required practicum (Cr for all semesters).

In addition, the National Association of Social Workers (NASW) Code of Ethics represents the professional standards of the MSW program. The NASW Code of Ethics is available in the student handbook. All students are expected to know and adhere to its principles of professional conduct. Students who knowingly or unknowingly violate any part of the ethical code may be dismissed from the program without further qualification regardless of coursework, research, or other academic achievement.

Student Handbook

The School of Social Work has a student handbook for graduate students containing policies and procedures not specified in this bulletin in addition to information to aid students in completing the MSW degree program. Students are responsible for the handbook on the Social Work homepage <http://socialwork.sdsu.edu>.

Program of Study

Advanced Standing Program

The first nine units of the advanced standing program taken during the summer semester are organized around the generalist/foundation of social work practice. The final 29 units commencing in the fall are organized around a methods focus area. Students will select one of the methods focus areas.

Standard 60 Unit Master of Social Work Program or 63 Unit Master of Social Work Program with Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH) Certificate

The standard 60 unit Master of Social Work program or 63 unit Master of Social Work program with Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH) certificate is organized in the first year around the generalist/foundation courses. The second year program is organized around a methods focus area. Students will select one of the methods focus areas described below during the semester before beginning the second year of the program.

Methods Focus Areas

Direct Practice Social Work

Focus is on interpersonal relationships and social functioning with emphasis on appropriate intervention methods used primarily with individuals, families, and groups. Emphasis is placed on a problem-solving framework that utilizes assessment/diagnosis, intervention/treatment and evaluative skills.

Social Work Administration and Community Development

Focus is on designing and managing human service organizations, engaging communities, forming partnerships, building institutional relationships, and enhancing social capital. Areas of emphasis include Administration (financial management, information systems, leadership, organizational change, supervision) or

Community Development (community organizing, neighborhood improvement and problem solving, international social work, immigration issues). Electives must be approved by the adviser.

Direct Practice Social Work/Early Childhood Transdisciplinary Education and Mental Health (EC-TEaMH) Certificate

This focus area prepares MSW students to work with young children (ages 0-5) in the mental health field. In addition to the MSW, this focus area meets the requirements of the EC-TEaMH certificate that models the California Infant and Early Childhood Mental Health Training Guidelines and Personnel Competencies. Like the Direct Practice focus, emphasis is placed on a problem-solving framework that utilizes assessment/diagnosis, intervention/treatment, and evaluative skills.

Field of Service

In addition to the methods focus of the program of study, the curriculum provides students the opportunity to develop knowledge and skills in a specialized field of service while meeting their advanced human behavior, advanced social policy, advanced field practicum, and elective requirements. Students, with guidance from the graduate adviser and a faculty member serving as a professional mentor, select coursework that address their specific educational and career goals. Based on the current strengths of the school's faculty, students can use their coursework and their field practicum to develop specialized knowledge in the areas of child welfare, family services, mental health, aging, substance abuse, and health. In addition, students may use thesis research to extend their knowledge in one of these areas.

Master of Social Work Degree and Juris Doctor Degree

General Information

The School of Social Work and the California Western School of Law offer a four-year concurrent graduate program which allows students to earn simultaneously a Master of Social Work and a Juris Doctor (JD) degree in law. The objective of the concurrent degrees program is to prepare students who are competent in advanced practice where social work and law converge.

Admission to the Degree Curriculum

To request application materials for the concurrent dual degrees program in social work and law, applicants should contact the Office of Admissions at the School of Social Work, San Diego State University, and the Office of Admissions at California Western School of Law. Two separate application processes must be followed. Please see the Admission to Graduate Study section in this bulletin under the Master of Social Work degree program. (The only difference is that students earning the two degrees simultaneously may substitute the results of the LSAT examination for the GRE examination.) Applicants should indicate on the appropriate section of each application that they are applying for the concurrent dual degrees MSW/JD program.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. In addition, students must also meet all criteria outlined under the Advancement to Candidacy section for the Master of Social Work program.

Specific Requirements for the M.S.W./J.D. Concurrent Degree Program

(Major Code: 21041) (SIMS Code: 558280)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin and all the requirements listed in the California Western School of Law catalog for the JD degree, the student must complete an officially approved course of study as outlined below.

School of Social Work

(60 Units—Including six units transferred from California Western School of Law)

- Twenty-eight units in generalist/foundation courses (SWORK 601, 619, 620A, 630, 631, 632, 650, 690 [or GERO 690]);
- Twenty-nine units of advanced study, to include:
 - Three units of advanced social policy (SWORK 702);
 - Zero to three units of advanced human behavior (SWORK 720);
 - Three units of advanced research methods (SWORK 797);
 - Six to nine units of social work electives (SWORK 745, 758, 780, 781, 798, 799A);
 - Six units of electives transferred from California Western School of Law courses);
 - Fourteen units from one of the following social work methods focus areas (Administration and Community Development or Direct Practice).

Administration and Community Development (Major Code: 21041) (SIMS Code: 558209)

SWORK 720	Seminar in Selected Topics in Human Behavior and Social Environment: Civic Engagement and Society Environments.....	3
SWORK 740	Advanced Seminar in Administration.....	3
AND		
GERO 740	Community Development in Social Work and Gerontology	3
SWORK 755	Advanced Field Practicum: Social Work Administration and Community Development.....	4 (Cr/NC/RP) (Taken twice)

Direct Practice (Major Code: 21041) (SIMS Code: 558208)

SWORK 739	Advanced Seminar in Social Work Practice with Families.....	3
SWORK 744	Advanced Seminar in Selected Topics in Direct Practice Social Work.....	3
SWORK 750	Advanced Field Practicum: Direct Practice Social Work	4 (Cr/NC/RP) (Taken twice)

In addition to the above courses, students must complete either a thesis (Plan A) or a comprehensive written examination (Plan B). Students completing Plan A may count Social Work 799A as three units of electives.

California Western School of Law

(89 Units—Including 12 units transferred from the School of Social Work)

Courses	Units
Civil Procedures I and II.....	6
Contracts I and II.....	6
Criminal Law I.....	3
Legal Skills I and II.....	4
Property I and II.....	6
Torts I and II	6
Constitutional Law II	3
Criminal Procedure I.....	3
Evidence.....	4
Professional Responsibility.....	2
Interdisciplinary Program for Child Abuse and Neglect.....	6
Independent Study	3
Internship.....	5
Electives*	32

*includes 12 units from SDSU

Social Work

The specific sequence of courses over the four year period is listed in the admissions material. Students attend the schools in the following pattern:

Year 1	California Western School of Law only
Year 2	San Diego State University School of Social Work only
Year 3	(Fall) Both Schools
Year 3	(Spring) California Western School of Law only
Year 4	Both Schools

Master of Social Work Degree and Master of Public Health Degree

General Information

The School of Social Work and the Graduate School of Public Health offer a three year concurrent graduate program leading to a Master of Social Work and a Master of Public Health. The objective of the concurrent program is to offer preparation in the fields of public health and social work. Students in this concurrent program must select the social work administration methods focus area.

Admission to the Degree Curriculum

Applicants should refer to the admission to master's and doctoral study section for application instructions. In order to be considered for the concurrent MSW/MPH program, applicants must meet the general requirements for admission to graduate study at the university (see Part Four of this bulletin).

Applicants must have a minimum 2.85 grade point average in the last 60 semester or 90 quarter units in undergraduate work completed. Undergraduate preparation in at least one of the following areas is preferred: social work, social or behavioral sciences, or health science. Applicants must have a satisfactory score on the GRE General Test. Applicants already holding another master's degree or higher degree from an acceptable accredited graduate school are exempt from the GRE (see Part Four of this bulletin).

A committee composed of faculty from Social Work and Public Health will make all admission recommendations to the dean of the Division of Graduate Affairs.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. All core courses in public health and social work must be completed prior to advancement. In addition, the student must: (1) have earned at least 24 units of graduate study within the concurrent program with a minimum grade point average of 3.0 and no grade less than a B– in each core course; (2) have been recommended for advancement by the combined faculty advisory committee; received credit (Cr) in field practicum; (3) have a thesis proposal approved by the combined faculty advisory committee.

Upon advancement to candidacy, the student will enroll in Social Work 797 (Research), Public Health 797 (Research), and Social Work 799A (Thesis) or Public Health 799A (Thesis). A thesis (Plan A) incorporating theory, method, and analytic techniques from both disciplines is the culminating experience for the concurrent program leading to the MSW and MPH degrees.

Specific Requirements for the MSW/MPH Degree (Major Code: 12991) (SIMS Code: 998210)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an officially approved course of study of not less than 93 units as outlined below.

Social Work/Public Health-Health Management and Policy (SIMS Code: 998221)

SWORK 601	Seminar in Social Welfare Policy and Services.....	3
SWORK 619	Human Behavior in the Social Environment.....	3
SWORK 620A	Seminar in Human Behavior and Social Environment: Direct Practice	3
SWORK 630	Social Work Practice: A Generalist Perspective.....	3
SWORK 631	Social Work Practice: Individuals, Families, and Groups	3
SWORK 632	Social Work and Gerontology: Organizations and Communities.....	3
SWORK 650*	Field Practicum.....	7 (Cr/NC)
SWORK 690/GERO 690	Seminar in Research Methods for Social Work and Gerontology.....	3
SWORK 720	Seminar in Selected Topics in Human Behavior and Social Environment	3
SWORK 740	Advanced Seminar in Administration ...	3
AND		
GERO 740	Community Development in Social Work and Gerontology	3
SWORK 755*	Advanced Field Practicum: Social Work Administration and Community Development.....	8 (Cr/NC/RP)
SWORK 797	Research	3 (Cr/NC/RP)
P H 601	Epidemiology	3
P H 602	Biostatistics.....	3
P H 604	Environmental Determinants of Human Health.....	3
P H 641	Introduction to Health Services.....	3
P H 642	Health Insurance and Financing Systems.....	3
P H 644A	Health Services Organization Management	3
P H 644B	Managing High-Performing Health Care Organization	3
P H 645	Health Economics	3
P H 647	Quantitative Methods and Health Data Analysis.....	3
P H 648	Health Policy	3
P H 742A	Health Services Financial Management.....	3
P H 747	Quality Improvement and Program Evaluation	3
P H 748	Health Services Competitive Strategy and Marketing.....	3
P H 797	Research	3 (Cr/NC/RP)
P H 799A	Thesis	3 (Cr/NC/RP)
OR		
SWORK 799A	Thesis	3 (Cr/NC/RP)
Electives: Three units of social work electives - recommended:		
SWORK 745	Advanced Seminar in Selected Topics in Social Work Administration	3

Transfer units will not be accepted toward the concurrent MSW/MPH degree program. Graduate study or degrees obtained previously will not be accepted toward meeting the unit requirements of the concurrent MSW/MPH degree program.

If a student, after entering the concurrent MSW/MPH program returns to a single degree program, all of the requirements for the single degree program must then be met.

*Social Work 650 and 755 must have the approval of the faculty advisory committee. Responsibility for faculty field supervision will be assigned in social work.

Section II. Doctoral Program

<http://socialwork.sdsu.edu/degrees-programs/graduate-programs/phd-substance-use-studies>

Doctor of Philosophy Degree in Interdisciplinary Research on Substance Use

General Information

The School of Social Work at San Diego State University and the Division of Global Public Health at the University of California, San Diego, offer a joint doctoral program in interdisciplinary research on substance use. This program is designed to prepare the next generation of leaders in substance use research with the knowledge and skills to improve health and develop substance use interventions, policies, and programs that are relevant to impacted populations and reduce suffering related to addiction and substance use.

The program focuses on interdisciplinary approaches to address the use and misuse of substances and the social and health consequences of such use and related policies. Interdisciplinary training opportunities draw from a variety of disciplines including anthropology, economics, global health, Latin American studies, neuroscience, pharmacology, political science, psychology and psychiatry, public health, and social work. The program will include a prevention research orientation focusing on the development and evaluation of disease prevention and health promotion recommendations and public health policies and programs. A harm reduction research perspective is also emphasized to reduce health problems associated with drug use and co-occurring disorders. Students acquire advanced skills and knowledge in these areas, building on a solid foundation of current and emerging theory, research methods, and analytic approaches related to scientific and cultural understanding of substance use and related problems. Using a socio-ecological perspective, students will gain critical understanding of the etiology and epidemiology of substance use, and its related problems, as well as the effectiveness of interventions, policies, and programs designed to ameliorate such problems. Graduates of the program will be prepared to take leadership roles in areas such as academics, clinical practice, governmental and non-governmental agencies, policy, and research.

Admission to the Degree Curriculum

Applicants must hold a master's degree from an accredited (U.S. or equivalent) college or university from a related social/behavioral science or professional program (e.g., social work, public health, psychology, sociology, anthropology, economics). It is expected that applicants will have minimum grade point averages of 3.2 (undergraduate) and 3.5 (graduate) or better, and sufficient research experience (e.g., peer-reviewed publication record, prior coursework in graduate-level statistics, and research methodology) to successfully complete degree requirements in a timely manner. Minimum acceptable GRE scores are at the 55th percentile. Students who speak English as a second language will be required to demonstrate proficiency in spoken and written English through the TOEFL examination. TOEFL scores must be submitted to SDSU, Institution Code 4682, <http://www.ets.org>.

Advancement to Candidacy

In order to advance to candidacy, students must (1) complete their coursework, (2) pass a comprehensive examination, (3) develop a proposal of their dissertation research (NIH-style proposal format), and (4) pass an oral defense of their dissertation proposal with their committee. The comprehensive examination will be objective and cover areas including data analysis, research methods, pharmacology, and theory. The material for this examination will be taken from course materials related to each of these respective sequences. Students must achieve at least 80 percent within two attempts in order to pass.

Specific Requirements for the Doctor of Philosophy Degree

(Major Code: 49075) (SIMS Code: 558213)

All students must complete a minimum of 60 units and residency requirements on both campuses to include 24 semester units at SDSU and 36 quarter units at UCSD; and a minimum one year residence on each campus. Required SDSU coursework includes SWORK 800, 801, 850, 880, 881, and two SDSU electives. Required UCSD coursework includes MED 231, MED 257A and 257B, and two UCSD electives. In addition, each student will complete a take-home qualifying examination and the dissertation.

Section III. Certificate and Credential Programs

Certificate in Social Work Administration

(SIMS Code: 558220)

Offered by the School of Social Work, the Advanced Certificate in Social Work Administration provides the following objectives:

- Enhance the skills and career prospects for students with a Master of Social Work degree who have moved into, or are interested in moving into, administrative positions in human service organizations;
- Enhance the talent pools for human service organizations that prefer managers and leaders with knowledge and skills in administrative practice and a strong grounding in clinical or direct practice service delivery;
- Contribute to increasing effectiveness of human service organizations in both client outcomes and management capacity.

Applicants to this program must possess a Master of Social Work in Clinical or Direct Practice. Applicants with other master's degrees in human services field may be considered on a case-by-case basis.

The following courses must be completed with a grade point average of 3.0 or above:

SWORK 740	Advanced Seminar in Administration.....	3
AND		
GERO 740	Community Development in Social Work and Gerontology	3
SWORK 745	Advanced Seminar in Selected Topics in Social Work Administration	3
SWORK 758	Seminar in Social Work and Selected Fields of Practice: Information Systems and Knowledge Management.....	3
SWORK 758	Seminar in Social Work and Selected Fields of Practice: Financial Management and Resource Development.....	3

Up to 12 units of completed certificate courses with a grade of B or better may be applicable to the Master of Social Work degree with the approval of the graduate adviser.

For further information, contact the program adviser, Dr. Thomas R. Packard, School of Social Work, tpackard@sdsu.edu or 619-594-6865.

Pupil Personnel Services Credential

The School of Social Work is accredited by the State of California Department of Education to offer the Pupil Personnel Services Credential in School Social Work and the Pupil Personnel Services Credential in Child Welfare and Attendance. The credentials can be awarded under two conditions:

1. As part of the regular MSW program being completed during the second year coursework. Students would be assigned to a second year SWORK 750 internship in an approved and supervised school placement. In addition, students must take SWORK 758 (School Social Work) as their fall elective course, and SWORK 798 for one unit in the spring.
2. As a post MSW student through Cal State Apply, <http://www.calstate.edu/apply>. Interested professionals must contact the PPS coordinator and apply for the program which consists of 12 units taken over two semesters beginning in the fall of each year. The program includes SWORK 758 (School Social Work—3 units), SWORK 798 (1 unit), and SWORK 750 (4 units) each semester. SWORK 750 is a 20-hour per week internship required to accumulate the necessary time for the credentials.

Admission

Current students interested in the PPS credential need only file the regular SWORK 750 application during the spring semester prior to enrollment. Unless demand is high, students will generally be admitted to the credential program.

Post MSW students must submit an electronic application and must apply for admission to the credential program through Cal State Apply by the deadline. Post MSW students must then file the necessary field application to the coordinator of Field Education by the deadline date established for all students. In entering the program, admission is based upon available internship sites. Preference is given to current students. Official acceptance does not occur until late spring when all current students have been placed.

For further information contact Paul Brazzel, PPS Coordinator, at 619-594-6865 or socwork@sdsu.edu.

Courses Acceptable for Master's and Doctoral Degree Programs in Social Work

(SWORK)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

SWORK 558. Seminar in Community Organization and Problem Solving (3)

Prerequisite: Credit or concurrent registration in Social Work 489A, 489B, or 650.

Community change, consensus organizing model, environmental social work, problem solving, and strategies for serving socio-economically under-served communities for future community organizers and human services administrators.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

SWORK 601. Seminar in Social Welfare Policy and Services (3)

Social welfare as a social institution; philosophical, historical, and comparative analysis of the welfare functions, issues and problems in both policy and program development, implementation, and evaluation.

SWORK 610. Computer Application in Practice for Social Work and Gerontology (3)

Prerequisite: Social Work 690 [or Gerontology 690].

Computer technology in social work practice with emphasis on clinical and administrative applications, program monitoring, and support of service provision and delivery.

SWORK 619. Human Behavior in the Social Environment (3)

Conceptual framework to view and interpret behavior and to understand functioning of individuals, families, groups, organizations, and communities within ecological systems.

SWORK 620. Seminar in Human Behavior and Social Environment (3)

Prerequisite: Social Work 619.

Human behavior theories and concepts appropriate to a methods concentration.

A. Direct Practice

SWORK 630. Social Work Practice: A Generalist Perspective (3)

Prerequisite: Concurrent registration in Social Work 650.

Overview of generalist social work practice as a method and process. Generalist social work presented as a basic helping approach used to assist individuals, groups, families, organizations, and communities to achieve personal and social change.

SWORK 631. Social Work Practice: Individuals, Families, and Groups (3)

Prerequisites: Social Work 630 and concurrent registration in Social Work 650.

Preparation for direct intervention with individuals, families, and groups.

SWORK 632. Social Work and Gerontology: Organizations and Communities (3)

Prerequisites: Social Work 630 and concurrent registration in Social Work 650.

Theoretical knowledge of elementary organizational and inter-organizational decision making in human service programs.

SWORK 650. Field Practicum (3-8) Cr/NC

Field instruction in public or voluntary social work setting. Seven units required. Maximum credit seven units. Experiences emphasize application of social work objectives, principles, and skills in service to individuals, families, groups, organizations, and communities.

SWORK 670. Social Work Foundation Practice Skills (3)

Prerequisite: Admission to advanced standing program.

Skill development and application of social work practice. Engagement, assessment, risk assessment, application of theoretical models to client interventions.

SWORK 671. Generalist Foundation of Social Work Practice, Policy, and Human Behavior (3)

Prerequisite: Admission to advanced standing program.

Reviews generalist foundation of social work curriculum. Practice concepts at all practice levels, human development theories, and social welfare policies.

SWORK 690. Seminar in Research Methods for Social Work and Gerontology (3)

(Same course as Gerontology 690)

Research development, design, and methodology. Application to social work and gerontology in testing theories, advancing practice knowledge, and decision-making.

SWORK 696. Seminar on Selected Topics (3)

Intensive study in specific areas of social work. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

SWORK 702. Seminar in Selected Social Welfare Policy and Services (3)

Prerequisite: Social Work 601.

Selected social welfare policies used to examine processes of policy formulation, policy analysis skills, and relationships of policy decisions and indecisions to outcomes of social welfare interventions. Maximum credit six units applicable to a master's degree.

SWORK 720. Seminar in Selected Topics in Human Behavior and Social Environment (3)

Prerequisite: Social Work 620A.

Selected topics related to current theories of natural and induced change in human behavior which have utility for social work practice within fields of service. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units applicable to a master's degree.

SWORK 739. Advanced Seminar in Social Work Practice with Families (3)

Prerequisites: Social Work 744 and concurrent registration in Social Work 750.

Family dynamics and social work practice related to family change.

**SWORK 740. Advanced Seminar in Administration and Community Development in Social Work and Gerontology (3)
(Same course as Gerontology 740)**

Prerequisites: Social Work 632 and concurrent registration in Gerontology 700A or Social Work 755.

Human services program design, strategic planning, marketing, organizational performance management, human resource management, and development of grant proposals.

SWORK 744. Advanced Seminar in Selected Topics in Direct Practice Social Work (3)

Prerequisites: Social Work 631, 632, and concurrent registration in Social Work 750.

Study of a selected aspect of direct practice social work. Topics include treatment methodology, theoretical approaches, levels of practice, specific client groups, or special problem areas. See *Class Schedule* for specific content.

SWORK 745. Advanced Seminar in Selected Topics in Social Work Administration (3)

Prerequisites: Social Work 740 [or Gerontology 740] and concurrent registration in Social Work 755.

Study of selected aspects of administration in human services organizations to include leadership, organizational learning, organizational change management, and supervision. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

SWORK 750. Advanced Field Practicum: Direct Practice Social Work (4) Cr/NC/RP

Prerequisites: Social Work 650 and concurrent registration in Social Work 739 or 740 [or Gerontology 740] and 744 or 745.

Advanced field instruction in public or voluntary social work setting. Eight units required. Continuation and intensification of experiences in application of social work objectives, principles and skills in service to individuals, families, groups and communities. Maximum credit eight units applicable to a master's degree.

SWORK 755. Advanced Field Practicum: Social Work**Administration and Community Development (4) Cr/NC/RP**

Prerequisites: Social Work 650 and concurrent registration in Social Work 720 or Social Work 740 [or Gerontology 740] and 745.

Advanced field instruction in public or voluntary social work setting. Eight units required. Continuation and intensification of experiences in application of social work objectives, principles and skills in service organizations and communities. Maximum credit eight units applicable to a master's degree.

SWORK 758. Seminar in Social Work and Selected Fields of Practice (1-3)

Traditional and emerging fields of practice and related social work responsibilities and roles. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

SWORK 780. Seminar in Social Work and Selected Populations-at-Risk (3)

Social work practice with selected populations-at-risk such as one-parent families, children in institutions, ethnic minority immigrants, Native-Americans in the urban scene, and foreign-born brides of U.S. servicemen. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units applicable to a master's degree.

SWORK 781. Seminar on Selected Populations-at-Risk (3)

Knowledge about and analysis of selected populations-at-risk, social work responsibilities in emerging service demands by diverse and needful, high risk segments of the population in a complex society, and implications for social work practice. Population-at-risk for study to be announced in *Class Schedule*. May be repeated with new content. Maximum credit six units applicable to a master's degree.

SWORK 791. Applied Social Work Practice Research Seminar (3)

Prerequisite: Social Work 690 [or Gerontology 690].

Preparation for practitioner-researcher role through application of social work research concepts and procedures in practice situations (in class and field) of social work interventions. Maximum credit six units applicable to a master's degree.

SWORK 797. Research (3) Cr/NC/RP

Prerequisite: Consent of Instructor.

Research in one of the areas of social work. Maximum credit three units applicable to a master's degree.

SWORK 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with director and instructor.

Individual study. Maximum credit three units applicable to a master's degree.

SWORK 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a thesis for the master's degree.

SWORK 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

SWORK 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.



DOCTORAL COURSES

SWORK 800. Seminar in Etiology and Pharmacology of Substance Abuse (3)

Advanced seminar experience related to alcohol and other drug etiological models and epidemiology of substance abuse.

SWORK 801. Seminar in Global Approaches to Substance Abuse Prevention and Treatment (3)

Current science related prevention and treatment of substance misuse. Cultural and societal aspects of substance abuse treatment.

SWORK 850. Seminar in Theoretical Approaches to Substance Abuse (3)

Social science theory as it relates to substance use and misuse. Classic and current theory from ecological approach related to extant science.

SWORK 880. Advanced Seminar in Substance Abuse Research (3)

Substance abuse to include randomized clinical trials, prevention trials, field research, mixed methods, epidemiological approaches, etiological research. Classic methodological texts and emerging approaches examined.

SWORK 881. Advanced Multivariate Data Analysis (3)

Substance use and misuse to include analyses of biomarkers, complex survey data, observational data, and multi-level data.

SWORK 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Prior to advancement to candidacy; Independent investigation including the general field of the dissertation.

SWORK 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

Sociology

IN THE COLLEGE OF ARTS AND LETTERS

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Faculty

Norma Ojeda, Ph.D., Professor of Sociology, Chair of Department

Jill Esbenshade, Ph.D., Professor of Sociology

Henry E. Johnston, Ph.D., Professor of Sociology

Ruth Xiaoru Liu, Ph.D., Professor of Sociology

Jung Min Choi, Ph.D., Associate Professor of Sociology

Minjeong Kim, Ph.D., Associate Professor of Sociology
(Graduate Adviser)

Enrico A. Marcelli, Ph.D., Associate Professor of Sociology

Michael A. McCall, Ph.D., Associate Professor of Sociology

Michael J. Roberts, Ph.D., Associate Professor of Sociology

Audrey N. Beck, Ph.D., Assistant Professor of Sociology

Joseph R. Gibbons, Ph.D., Assistant Professor of Sociology

Erika Robb Larkins, Ph.D., Assistant Professor of Anthropology
and Sociology

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships in sociology are available to a limited number of qualified sociology students. Application forms and further information are sent out to enrolled graduate students each semester for consideration.

General Information

The Department of Sociology offers graduate work leading to the Master of Arts degree in Sociology. Research facilities provided by the Department of Sociology include a well-equipped Social Science Research Laboratory for use by the faculty and graduate students. Faculty in the Department of Sociology are involved in a wide range of research activities. Regular opportunities exist for participation in these projects by graduate students within the department. The program also prepares students for teaching careers.

Admission to Graduate Study

Students will be admitted for the fall semester only. Application packages must be received and complete by the deadline. Deadlines are available on the university Graduate Division website. All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. The graduate advisory committee may consider conditionally classified standing for students whose preparation is deemed insufficient. They will be required to complete specified courses in addition to the minimum of 30 units required for the degree.

Meeting all the indicated criteria does not guarantee admission to the program, since admission is also dependent on the facilities and resources available in the department.

There are two parts to the application process. Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee, and then go to the department website at <http://sociology.sdsu.edu/graduate/application.html> and follow the steps. All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Sociology.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
5500 Campanile Drive
San Diego State University
San Diego, CA 92182-7416

1. One official transcript (in sealed envelopes) from each post-secondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Sociology

The following admissions materials must be submitted electronically:

1. Three letters of recommendation (at least two must be from persons who can speak to academic ability);
2. Personal statement;
3. Writing sample (preferably an academic paper). If this is not available, send an extended, three to five page personal statement;
4. Copy of transcript (these do not need to be sent directly from the colleges; photocopies are acceptable).

For information regarding the admissions process, visit the department website at <http://sociology.sdsu.edu/graduate/application.html>.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin. Students must have taken the first three courses of the core course series (Sociology 600, 601, 607). Students must have a 3.0 in their program courses and no less than a B- grade in each core course.

Specific Requirements for the Master of Arts Degree

(Major Code: 22081) (SIMS Code: 116901)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree, as described in Part Four of this bulletin, students must complete 30 units in the master's program. Students must complete the program of study courses with a grade point average of 3.0 or better. The 30 units to include the following courses:

1. Five core courses: Sociology 600, 601, 605, 607, 608.
2. Two 700-level seminars in the Department of Sociology.
3. Two electives: 500- to 700-level courses in the Department of Sociology or another department with approval of the graduate adviser. No more than one elective course can be independent study.
4. Sociology 799A for Plan A (Thesis) OR if completing Plan B (Comprehensive Examination) an additional 700-level sociology seminar or Sociology 796 is required.

Before the student proceeds with the thesis (Sociology 799A), approval from the thesis chair and second committee member must be obtained based on a detailed proposal. The proposal may be developed through enrollment in Sociology 797 (which cannot count as a seminar but may be used to fulfill the elective units). Once the thesis is complete, an oral defense is required to complete the program.

Courses Acceptable for Master's Degree Program in Sociology (SOC)

Refer to Courses and Curriculum and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

SOC 522. The Family in Comparative and Cross-Cultural Perspectives (3)

Prerequisite: Sociology 101. Recommended: Sociology 421.

Comparative study of selected family systems in the past and present. Comparative analysis of major social and demographic changes in marriage and family in post-industrial nations and less developed countries. Cross-cultural comparisons of family arrangements in contemporary America by social classes and racial-ethnic groups.

SOC 531. Working and Society (3)

Prerequisite: Sociology 101.

Structure and change in labor force, nationally and internationally. Social drama of work: self, roles, conflict, subcultures. Includes exploration of student work experiences, workers in the community, literacy, and film depictions of work worlds.

SOC 537. Political Sociology (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. Sociology of the United States-Mexico Transborder Populations and Globalization (3)

Prerequisite: Sociology 101.

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

SOC 597. Investigation and Report (3)

Prerequisites: Fifteen units in sociology and consent of instructor. Analysis of special topics in sociology. Maximum credit six units.

GRADUATE COURSES

SOC 600. Proseminar in Sociology: Core Course (3)

Prerequisite: Graduate standing.

Elements of profession of sociology and sociological research procedures. Connection between theoretical perspectives and appropriate research methods. Practice in scientific sociological writing styles to develop a master's thesis proposal.

SOC 601. Advanced Classical Social Theory: Core Course (3)

Prerequisite: Graduate standing.

Systematic treatment of original European and American classic sociological writings.

SOC 605. Advanced Contemporary Social Theory: Core Course (3)

Prerequisite: Graduate standing.

Examination and analysis of original works in modern/postmodern sociological theory.

SOC 607. Advanced Quantitative Methods: Core Course (3)

Prerequisites: Graduate standing and Sociology 201.

Research methods appropriate to particular types of sociological projects with emphasis on analysis of descriptive statistics and use of linear and non-linear regression methods. Methods of evaluating reported findings in sociological research.

SOC 608. Advanced Qualitative Methods: Core Course (3)

Prerequisites: Graduate standing and credit or concurrent registration in Sociology 600.

Qualitative methods for data collection, analysis, and reporting in contemporary sociological research and related disciplines. Study, practice, critiques of techniques; ethnography, interviews, archival research, content analysis.

SOC 695. Topics in Directed Readings (3)

Prerequisite: Credit or concurrent registration in at least one core course or one seminar.

Selected reading providing coverage of social theory, social disorganization, social organization, social institutions, social psychology (sociological approaches), community research methods, population and demography, or special topics. Maximum credit three units applicable to a master's degree.

SOC 696. Experimental Topics (3)

Prerequisite: Graduate standing.

Intensive study in specific areas of sociology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

SOC 700. Seminar in Social Theory (3)

Prerequisites: Sociology 401 and 407.

Classics of sociology, American social theory, theory construction, application of theory to research, theoretical models, sociology of knowledge, special topics. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units applicable to a master's degree.

SOC 730. Seminar in Social Institutions (3)

Prerequisites: Sociology 407 and 430.

The family and kinship, political organization, economic organization, religion, education, industry, occupations and professions, social stratification, special topics. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units applicable to a master's degree.

SOC 743. Seminar in Criminology and Criminal Justice Theory (3)

Prerequisites: Graduate standing, 12 graduate units, Sociology 401.

History of criminological theory and review of leading contemporary theories of crime and criminal justice with focus on interconnection among social context, policy making, and methodological implications of theories.

**SOC 796. Field Practicum (3) Cr/NC**

Prerequisites: Sociology 601, 607, 608.

Supervised field placement in community agency. Application of sociological theories and methods to policy and research needs of agency. Maximum credit six units applicable to a master's degree.

SOC 797. Research (3) Cr/NC/RP

Prerequisite: Sociology 407.

Independent investigation of special topics. Maximum credit three units applicable to a master's degree.

SOC 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff, to be arranged with department chair and instructor.

Individual study. Maximum credit three units applicable to a master's degree.

SOC 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

SOC 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

SOC 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Spanish

IN THE DEPARTMENT OF SPANISH AND PORTUGUESE LANGUAGES AND LITERATURES
IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 134

TELEPHONE: 619-594-6588 / **FAX:** 619-594-5293

Faculty

Alda Blanco, Ph.D., Professor of Spanish, Chair of Department

Juan M. Godoy Marquet, Ph.D., Professor of Spanish

José Mario Martín-Flores, Ph.D., Professor of Spanish
(Graduate Adviser)

Alfredo Urzúa Beltrán, Ph.D., Associate Professor of Spanish

Ricardo Vasconcelos, Ph.D., Associate Professor of Portuguese

Daniel Ares-Lopez, Ph.D., Assistant Professor of Spanish

Matias E. Beverinotti, Ph.D., Assistant Professor of Spanish

Lauren B. Schmidt, Ph.D., Assistant Professor of Spanish

Associateships

Graduate teaching associateships in Spanish are available to a limited number of qualified students. New teaching associates are required to enroll in Spanish 770 during their first semester as teaching associates. Application blanks and additional information may be secured from the chair of the department.

General Information

The Department of Spanish and Portuguese Languages and Literatures offers graduate study leading to the Master of Arts degree in Spanish. The program prepares students for a professional career in teaching.

Library facilities include rich resources in Spanish literature and linguistics, including books, periodicals and newspapers. A Language Acquisition Resource Center with modern equipment is available to both graduate and undergraduate students.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. An undergraduate major in Spanish is preferable. Applicants from other disciplines may be accepted at the discretion of the graduate admissions committee.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Spanish and Portuguese.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services

San Diego State University

San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Department of Spanish and Portuguese Languages and Literatures

The following materials should be mailed or delivered to:

Department of Spanish and Portuguese

Languages and Literatures

(Attention: Graduate Adviser)

San Diego State University

5500 Campanile Drive

San Diego, CA 92182-7703

1. Three letters of recommendation from professors who are familiar with your abilities as a student;
2. Statement of purpose in Spanish;
3. Writing sample (preferably a research paper or essay written in Spanish that was submitted in an undergraduate course from 6 to 10 pages).

Advancement to Candidacy

In addition to meeting the requirements for advancement to candidacy as described in Part Four of this bulletin, students may be required to pass a qualifying examination in Spanish given by the Department of Spanish and Portuguese Languages and Literatures.

Specific Requirements for the Master of Arts Degree

(Major Code: 11051) (SIMS Code: 117101)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete an approved graduate program of at least 30 units to include Spanish 601, 602, 604, 606, 661, 770 and 12 units of electives selected in consultation with the graduate adviser.

Students may elect either Plan A, Thesis; or Plan B, Comprehensive Examination to meet the culminating experience requirement for the Master of Arts degree in Spanish.

All candidates must demonstrate knowledge of Portuguese by passing an examination administered by the department or by completing Portuguese 101 or 201.

Courses Acceptable for Master's Degree Program in Spanish (SPAN) (PORT)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Spanish (SPAN)

UPPER DIVISION COURSES

All upper division courses in Spanish are taught in Spanish unless otherwise stated.

SPAN 501. Genre Studies in Spanish Literature (3)

Prerequisites: Spanish 401 and 402.

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 401 and 402.

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)

Prerequisites: Spanish 401 and 402.

A close reading of Cervantes' novel *Don Quixote*, Parts I and II.

SPAN 515. Mexican Literature (3)

Prerequisites: Spanish 401 and 402.

Mexican literature from the Romantic period to the present. Special emphasis placed on contemporary era.

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.

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)

Prerequisites: Spanish 401 and 402 or 448.

Topics in Spanish or Spanish American 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 of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

SPAN 601. Seminar in Hispanic Literary Theory (3)

Prerequisite: Graduate standing.

Critical issues in Hispanic literary theory. Emphasis on contemporary theory: structuralism, post-structuralism, feminism, cultural studies, and gay and lesbian studies.

SPAN 602. Foundations and Research Methods of Hispanic Linguistics (3)

Prerequisite: Graduate standing.

Morphology, phonology, syntax of Spanish in historic and regional varieties. Qualitative and quantitative research related to sociolinguistics and pragmatics of Spanish, language acquisition, bilingualism, contact varieties. Spanish in teaching and translation.

SPAN 603. Early Modern Hispanic Literature (3)

Prerequisite: Spanish 601.

Philosophic, political, and aesthetic ideas in early modern Hispanic literature. Spanish and Spanish American texts spanning from fifteenth to eighteenth centuries.

SPAN 604. Spanish Literature: Eighteenth to Twentieth Century (3)

Prerequisite: Spanish 601.

Philosophical, political, and aesthetic ideas in literature of neo-classicism, romanticism, realism, and modernism from eighteenth through twentieth centuries.

SPAN 606. Spanish American Literature: Independence to Present (3)

Prerequisite: Spanish 601.

Spanish American literature in its artistic and ideological tendencies from age of independence to present. Literary movements include romanticism, Modernismo, criollismo, and indigenismo.

SPAN 611. Advanced Topics in Spanish Linguistics (3-6)

Prerequisite: Spanish 602.

Specific aspect of Spanish descriptive, historical, or theoretical linguistics. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

SPAN 612. Seminar in Spanish Discourse Analysis (3)

Prerequisite: Spanish 602.

Analysis of oral discourse in Spanish. Basic readings in field and strategies to collect and analyze data.

SPAN 630. Golden Age Drama (3)

Prerequisite: Spanish 601.

The works of Lope de Vega and Calderon among others.

SPAN 631. Spanish Women Writers (3)

Prerequisite: Spanish 601.

Feminist and cultural studies approach to works of Spanish women writers. Analysis of issues on gender, class, race. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

SPAN 661. Issues in the Study of Spanish Bilingualism (3)

Prerequisite: Spanish 602.

Theories and research on bilingualism with special emphasis on Spanish/English. Definitions of bilingualism. Bilingual typologies. Acquisition of bilingual abilities. Bilingualism and testing. Intersection of bilingualism and translation/interpreting studies. Individual and societal bilingualism.

SPAN 696. Selected Topics (3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of Spanish. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Spanish

SPAN 750. Seminar in Spanish American Literature (3)

Prerequisite: Spanish 601.

A genre or movement of Spanish American literature. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

SPAN 751. Seminar in Realism (3)

Prerequisite: Spanish 601.

Theoretical and historical underpinnings of literary realism. Examines key realist texts from variable periods in Spain or Latin America. Topics include the picaresque novel, naturalism, regional novel, thesis novel, and magical realism. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

SPAN 752. Seminar in Literature and Culture of the Fin-de-Siècle (3)

Prerequisite: Spanish 601.

Cultural and socio-political discourses that shape literary and non-literary texts at the turn of the century. Spanish, Latin American, or transatlantic texts and fin-de-siècle periods, such as nineteenth to twentieth century, transition to new millennium. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

SPAN 755. Seminar in Spanish American Culture, Film, and Society (3)

Prerequisite: Spanish 601.

Works of representative authors and cultural production of Spanish America. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

SPAN 760. Seminar in Reading in the Transatlantic Imaginary (3)

Prerequisite: Spanish 601.

Exploration and critical analysis of texts produced by authors who lived and wrote between Spain and Spanish-America. Relationship between a cultural text and its place of origin.

SPAN 770. Applied Spanish Linguistics for Teachers (3)

Prerequisite: Spanish 602.

The application of linguistic theory to the teaching of Spanish at the secondary and college levels.

SPAN 781. Spanish Language Testing (3)

Prerequisite: Spanish 602.

Theories and research on language testing with emphasis on Spanish. Types and purposes of language measurement instruments. Characteristics of tests: practicality, instructional value, validity, reliability, test difficulty. Overview of test formats/methods and their consequences.

SPAN 792. Spanish Language and Society (3)

Prerequisite: Spanish 602.

Basic notions of relationship between language and society in Spanish-speaking world. Methodologies applied to data from monolingual and bilingual speech communities. Variationism, ethnography of communication, and sociology of language in Spanish-speaking world.

SPAN 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff, to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

SPAN 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

SPAN 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

SPAN 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Portuguese (PORT)

UPPER DIVISION COURSES

All upper division courses in Portuguese are taught in Portuguese unless otherwise stated.

PORT 530. Portuguese Literature (3)

Prerequisite: Portuguese 311 or 312.

Foremost authors, movements, and works in the literature of Portugal.

PORT 535. Brazilian Literature (3)

Prerequisite: Portuguese 204.

Important movements, authors, and works of the literature of Brazil from the colonial period to modern times.

PORT 540. Luso-Brazilian Literature (3)

Prerequisite: Portuguese 311 or 312.

Portuguese and Brazilian literary genres, movements, and texts of historical and modern aesthetics discussed from a transatlantic perspective.

Special Education

Refer to "Education" in this section of the bulletin.

Speech, Language, and Hearing Sciences

IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE: Speech, Language, and Hearing 221
TELEPHONE: 619-594-7746 / **FAX:** 619-594-7109
WEBSITE: <http://slhs.sdsu.edu>

Faculty

Tracy E. Love-Geffen, Ph.D., Professor of Speech, Language, and Hearing Sciences, Director of School
Jessica A. Barlow, Ph.D., Professor of Speech, Language, and Hearing Sciences
Karen D. Emmorey, Ph.D., Albert W. Johnson Distinguished Professor of Speech, Language, and Hearing Sciences
Steven J. Kramer, Ph.D., Professor of Speech, Language, and Hearing Sciences
Carol L. Mackersie, Ph.D., Professor of Speech, Language, and Hearing Sciences
Peter Torre, III, Ph.D., Professor of Speech, Language, and Hearing Sciences
Henrike K. Blumenfeld, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences
Laura Dreisbach Hawe, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences
Ignatius Nip, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences (Graduate Adviser)
Sonja L. Pruitt-Lord, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences
Alyson Abel Mills, Ph.D., Assistant Professor of Speech, Language, and Hearing Sciences
Giang M. Pham, Ph.D., Assistant Professor of Speech, Language, and Hearing Sciences
Stephanie Ries-Cornou, Ph.D., Assistant Professor of Speech, Language, and Hearing Sciences

General Information

The master's degree program in speech-language pathology and professional doctorate in audiology (Au.D.) are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology.

The School of Speech, Language, and Hearing Sciences offers graduate study leading to the Master of Arts degree in speech, language, and hearing sciences, and to the credentials described below. The cooperating faculties of San Diego State University and the University of California, San Diego, offer a joint program leading to a Ph.D. in language and communicative disorders and a professional doctorate in audiology (Au.D.). The School of Speech, Language, and Hearing Sciences is committed to preparing speech-language-hearing professionals to meet the challenges of a culturally and linguistically diverse society. An M.A. degree in speech, language, and hearing sciences provides the necessary education, technical training, and creative experience necessary for professional activity, college-level teaching, and preceptors in speech-language pathology and related fields.

The programs utilize the facilities of the Speech, Language, and Hearing building, which includes observation rooms, school reference collection, and speech and hearing science laboratories. In the laboratories, students use acoustic immittance equipment, audiometric response simulators, EEG, electromagnetic articulography, eye-tracking, digital spectrograph, hearing aid analyzer, laryngoscopic manikin, microprocessor based diagnostic audiometers, miniphonators, optical motion capture, personal computers, phonic mirror, spectral signal analyzer, state-of-the-art ENG and evoked potential equipment, Visipitch, and video and audio equipment with ongoing new acquisitions.

In addition, the school utilizes its on-campus audiology and speech-language clinics. Students and faculty participate in providing direct delivery of clinical services to clients and participate in the assistive device assessment program, which evaluates and recommends augmentative or alternative means of

communication for persons with severe communication impairment. Field experience is offered in the public schools and community agencies. Practicum and observation experiences are possible at various hospitals, schools, community agencies, and rehabilitation agencies.

Section I. Master's Degree Programs

Admission to Graduate Study

Students will be admitted to the graduate programs only in the fall semester. Applications to the university must be submitted by January 12 for the master's degree programs in speech-language pathology and communicative sciences. For application information, see the school's website, <http://slhs.sdsu.edu>, select "M.A. Application" from the index or call 619-594-7746.

All students must satisfy the general admission and examination requirements for admission to the university with classified graduate standing as described in Part Two of this bulletin. In addition, the applicant must satisfy the following requirements before being considered for admission to classified graduate standing by the school's Admissions Review Committee.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the application fee by December 15.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Speech, Language, and Hearing Sciences via the Communication Sciences and Disorders Centralized Application Service (CSDCAS) at <https://csdcas.com>. Incomplete applications will not be reviewed. Deadline for receipt: January 12.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Speech, Language, and Hearing Sciences

The following admissions materials must be submitted electronically via CSDCAS (<https://csdcas.com>) by January 12:

1. Essay;
2. Curriculum vitae or resume;
3. Transcripts*;
4. Letters of recommendation (Applicants must provide names and e-mail addresses for recommenders. Recommenders will be sent e-mail to electronically complete letter of recommendation).

*Official transcripts must be mailed to CSDCAS Verification Department, P.O. Box 9113, Waterton, MA 02471

Once the above requirements have been satisfied, the applicant's file is considered complete and eligible for review by the school's Admissions Review Committee. Admission to the graduate programs is guided by careful consideration of all the above materials by a designated Admissions Review Committee. Applicants whose files are incomplete will not be eligible for admission to classified graduate standing. The number of new admissions is restricted and is determined by space availability; therefore, admission is based on consideration of all application materials and the relative merits of individual applicants among all eligible applicants.

Graduate faculty serve as graduate advisers and are assigned to students upon admission.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 12203)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of at least 36 units (64 units for the Concentration in Speech-Language Pathology). A student must complete Speech, Language, and Hearing Sciences 799A, Thesis for Plan A. The thesis option requires approval by the school and may not be appropriate for every student. If Plan B is elected, the student must pass a written comprehensive examination (which may be repeated only twice). No more than six units of coursework outside the school acceptable for the graduate level may be applied to the master's degree.

The School of Speech, Language, and Hearing Sciences offers three concentrations leading to the Master of Arts degree. Students in each concentration must have already completed a bachelor's degree (or approved level coursework) in speech, language, and hearing sciences (or equivalent). Each concentration requires completion of a specific pattern of graduate units described below:

A. Concentration in Speech-Language Pathology (SIMS Code: 550182). This concentration has a clinical focus and may be used to satisfy the academic and clinical preparation for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association (ASHA); for the Speech-Language Pathology Credential from the California Commission on Teacher Credentialing; and for licensure from the State of California. Students are required to complete coursework in all of the following areas: articulation, fluency, voice and resonance, receptive and expressive language, hearing, swallowing, cognitive and social aspects of communication, and augmentative and alternative communication modalities. **Graduate Program.** Students must complete a minimum of 45 academic units and a minimum of 19 clinical practicum units. The following courses are required: Speech, Language, and Hearing Sciences 570, 600A, 600B, 606, 607, 608, 609A, 609B, 613, 614, 617, 675, and either 672 or 673. In addition, students must complete nine units from Speech, Language, and Hearing Sciences 750, 790, 793, 794, 795, 797, 798, 799A. At least three of the nine units must be selected from Speech, Language, and Hearing Sciences 750, 790, 793, 794. A minimum of 19 units in the following clinical practicum courses are required: Speech, Language, and Hearing Sciences 525 (4 units); 521 and/or 618A and/or 619 (1-3 units); 618B (1-2 units); 626A, 626B, and/or 626C (3-5 units); 627 (3 units); 629 (1 unit); 630 (1 unit); and 933 (4 units). For students lacking transcript credit in aural rehabilitation, Speech, Language, and Hearing Sciences 546 (2 units) is also required. It is school policy that all students maintain a 3.0 grade point average in their program coursework.

B. Concentration in Speech-Language Pathology: Bilingual Specialization (SIMS Code: 550183). Students who have an interest in working with bilingual clients are encouraged to apply to the concentration in speech-language pathology with

a specialization in bilingualism. Students are required to pass a language proficiency test in a language other than English. To be a candidate for the specialization, a student must be admitted to the master's degree program in speech-language pathology since the specialization is coordinated with these endeavors. This concentration has a clinical focus and may be used to satisfy the academic and clinical preparation for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association (ASHA); for the Speech-Language Pathology Credential from the California Commission on Teacher Credentialing; and for licensure from the State of California. Students are required to complete coursework in all of the following areas: articulation, fluency, voice and resonance, receptive and expressive language, hearing, swallowing, cognitive and social aspects of communication, and augmentative and alternative communication modalities. **Graduate Program.** Students must complete a minimum of 51 academic units and a minimum of 19 clinical practicum units. The following courses are required: Speech, Language, and Hearing Sciences 570, 600A, 600B, 606, 607, 608, 609A, 609B, 613, 614, 617, 672, 673, 675, 794. Students must also complete three units of Speech, Language, and Hearing Sciences 750, 790, or 793. An additional six units must be selected from Speech, Language, and Hearing Sciences 750, 790, 793, 795, 797, 798, or 799A with approval of adviser. A minimum of 19 units in the following clinical practicum courses are required: Speech, Language, and Hearing Sciences 525 (4 units); 521 and/or 618A and/or 619 (1-3 units); 618B (1-2 units); 626A, 626B, and/or 626C (3-5 units); 627 (3 units); 629 (1 unit); 630 (1 unit); and 933 (4 units). For students lacking transcript credit in aural rehabilitation, Speech, Language, and Hearing Sciences 546 (2 units) is also required. It is school policy that all students maintain a 3.0 grade point average in their program coursework.

C. Concentration in Communicative Sciences (SIMS Code: 550142). This concentration has research and theoretical foci in the area of communicative disorders. Students interested in non-clinical study requiring a strong scientific foundation may avail themselves of this concentration. **Graduate Program.** Required courses: a minimum of 36 units to include Audiology 712 or Speech, Language, and Hearing Sciences 600A and 600B; 33 units of electives from 600- and 700-level Speech, Language, and Hearing Sciences courses and/or 700- and 800-level Audiology courses, with consent of the faculty adviser, and may include up to six units of 500-, 600-, and 700-numbered courses from engineering, linguistics, physics, psychology, or other departments with approval of graduate adviser. Students may complete three units of 799A (Plan A) as part of the 33 units or pass a comprehensive/qualifying examination (Plan B).

Section II. Doctoral Program

<http://slhs.sdsu.edu/phd>

General Information

The cooperating faculties of San Diego State University and the University of California, San Diego, offer a joint doctoral program in language and communicative disorders. The program's focus is the interdisciplinary study of language and communicative disorders. A major emphasis of the program is to apply techniques developed in cognitive science and neuroscience to the study of language and language disorders. The program involves study and research in normal and abnormal language (including sign languages), and in the neural bases of language use and language loss.

Participating faculty have research interests in a wide range of issues in the processes of language development, language and aging, multilingualism, language disorders, assessment, and intervention. Graduates of the program will be qualified to serve as faculty in university programs in a variety of disciplines, and to provide leadership in research and health services.

The doctoral program faculty at SDSU are members of the School of Speech, Language, and Hearing Sciences, Department of Linguistics and Asian/Middle Eastern Languages, and

the Department of Psychology. The doctoral program faculty at UCSD are also an interdisciplinary group from the Department of Cognitive Science, Department of Communications, Department of Linguistics, Department of Neurosciences, Department of Psychiatry, and the Department of Psychology. The program is coordinated by the doctoral program directors at each campus, in conjunction with an executive committee comprised of three faculty from each campus appointed by the graduate deans from each campus.

The program is innovative in that many of the requirements are designed to function as a model of professional preparation specifically incorporating activities in which a successful teacher and researcher must engage after obtaining the Ph.D. Students will be required to participate in interdisciplinary research throughout the program, learn about the nature and ethics of research, prepare grant proposals, write manuscripts, and will gain experience in oral presentations and teaching. Graduates from the program will be well-prepared for the rigors of an academic/research career.

Faculty

The following faculty participate in the doctoral program in language and communicative disorders and are available as advisers, for direction of research, and as members of dissertation committees.

San Diego State University: Abel Mills (Speech, Language, and Hearing Sciences), Barlow (Speech, Language, and Hearing Sciences), Blumenfeld (Speech, Language, and Hearing Sciences), Emmorey (Speech, Language, and Hearing Sciences), Friend (Psychology), Holcomb (Psychology), Love-Geffen (Speech, Language, and Hearing Sciences), Marinkovic (Psychology), Müller (Psychology), Nip (Speech, Language, and Hearing Sciences), Pham (Speech, Language, and Hearing Sciences), Pruitt-Lord (Speech, Language, and Hearing Sciences), and Ries (Speech, Language, and Hearing Sciences).

University of California, San Diego: Ackerman (Linguistics), Bellugi (Salk Institute, Psychology), Brown (Neuroscience), Carver (Psychology), Chukoskie (Institute for Neural Computation), Coulson (Cognitive Science), Creel (Cognitive Science), Deák, (Cognitive Science), Elman (Cognitive Science), Ferreira (Psychology), Garellek (Linguistics), Gollan (Psychiatry), Halgren (Neuroscience), Kritchewsky (Neuroscience), Kutas (Cognitive Science), Mayberry (Linguistics), Moore (Linguistics), Padden (Communications), Townsend (Neuroscience), Trauner (Neuroscience).

Admission to Doctoral Study

The doctoral program in language and communicative disorders draws from a variety of disciplines including cognitive science, engineering, linguistics, neuroscience, psychology, speech, language, and hearing sciences, and other related sciences. Students should have adequate preparation in mathematics, statistics, research, and biological sciences. Backgrounds in neurosciences and/or language sciences, or language disorders are helpful, but not required for admission.

Applicants for admission to the doctoral program must meet the general requirements for admission to both universities, as specified in the current SDSU and UCSD catalogs. Applicants must meet the special requirements of this program which include (a) an acceptable baccalaureate or master's degree or equivalent from a regionally accredited institution; (b) a GPA of at least 3.25 on a 4.0 scale in the last 60 semester (or 90 quarter) credits of upper division and/or graduate courses (c) good standing in the last institution attended; (d) suitable scores on the analytic, quantitative, and verbal sections of the Graduate Record Examination; (e) submission of appropriate application form and supporting materials as outlined below.

Applicant files are reviewed as a group by an admissions committee, composed of doctoral program faculty from each campus. Other doctoral faculty may review applicant files and make recommendations to the admissions committee. Assuming that the above requirements are met, decisions will also be guided by an evaluation of the adequacy of the applicant's preparation in view of their stated needs and objectives. Given the limited number of spaces available (4 to 6 new admissions each year are anticipated, subject to available facilities), the admissions committee

will select the best qualified applicants to fill the available spaces. No minimum set of qualifications will guarantee an applicant admission to the doctoral program. The admissions committee will make recommendations for admission to the graduate deans from each campus.

Application. Students will be admitted to the doctoral program only in the fall semester/quarter. Applications and all other supporting materials must be received (not postmarked) by January 12 to be considered for the doctoral program beginning in the following fall semester/quarter.

Application Guidelines for the SDSU/UCSD Joint Doctoral Program in Language and Communicative Disorders

To be admitted to the Joint Doctoral Program, applicants must electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the SDSU/UCSD Joint Doctoral Program (<http://apply.interfolio.com/46722>).

Graduate Admissions

The following materials should be submitted to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

SDSU/UCSD Joint Doctoral Program

The following admissions materials must be submitted electronically via Interfolio (<http://apply.interfolio.com/46722>) by January 12:

1. Essay;
2. Curriculum vitae or resume;
3. Transcripts;
4. Letters of recommendation (Applicants must provide names and e-mail addresses for recommenders. Recommenders will be sent e-mail to electronically complete letter of recommendation).

For information regarding the admissions process, visit the school website at <http://slhs.sdsu.edu>.

Specific Requirements for the Doctor of Philosophy Degree

(Major Code: 12201) (SIMS Code: 550102)

Faculty Adviser. Upon admission to the program, the executive committee will assign each student a faculty adviser. The faculty adviser will help the student select a program of study during the first year. The faculty adviser, in conjunction with the doctoral program coordinators, will help the student select a first laboratory rotation. Once the student has selected a major area of study (see below) the student will be reassigned an appropriate adviser, if necessary.

Residency Requirements. Students will be required to complete credits equivalent to one year's full-time enrollment at each campus. The definition of residence must be in accord with the regulations of SDSU (<http://arweb.sdsu.edu/es/registrar/residency.html>) and UCSD (<https://students.ucsd.edu/finances/fees/residence/status-change.html>). Students may be enrolled in courses at both institutions during any given semester/quarter.

Language Requirement. Students are required to have some experience in the acquisition of a second language. This may be

satisfied through informal learning, immersion, or two or more years of formal coursework in a second language. Any recognized natural language will be acceptable to fulfill this requirement (including American Sign Language or other sign languages). Artificial languages, e.g., computer languages, will not satisfy this requirement. For students selecting the multilingualism concentration, proficiency must be demonstrated in English and at least one other language.

Major Area of Concentration. By the end of the first year, all students select a major field of emphasis by choosing one of three concentrations: Adult Language, Child Language, or Multilingualism. All students will be required to take some courses in each of the three concentrations.

The **Adult Language concentration** is intended to provide intensive education in communicative disorders in adults. Students in this concentration will also develop expertise in the study of language processing in normal adults.

The **Child Language concentration** is intended to provide specialized education in childhood (birth to adolescence) communicative disorders. Students in this concentration will also achieve competence in developmental psycholinguistics emphasizing language acquisition in normally-developing children.

The **Multilingualism concentration** is intended to provide education in cross-linguistic, ethnographic, and other comparative studies of communicative disorders in children and/or adults, including those associated with bilingualism and second language acquisition (including acquisition of sign language in deaf individuals).

Course Requirements. The program for each student will consist of a common core of courses designed to provide the basic tools for research and a foundation knowledge in the important issues in language and communicative disorders, together with specific electives appropriate to the student's chosen concentration. The core courses must be taken for a letter grade unless approved by the program directors.

The **Tools requirement** consists of two courses in statistics/research design, a course in neuroanatomy and physiology, a course in syntax, and a professional survival skills course.

The **Foundations requirement** consists of two courses on normal language and three courses on disorders of language.

The **Electives requirement** consists of at least four courses, with a minimum of three courses related to the chosen concentration. These electives must be chosen from a broad list of approved options from anthropology, cognitive science, communicative disorders, computer science, linguistics, neurosciences, and psychology. Consult with adviser for approved elective courses. Other electives may be taken to satisfy this requirement with permission of the adviser. The four required electives must be approved by the student's adviser and the doctoral program coordinators. Students may select additional electives with approval of the adviser.

Laboratory Rotations. In order to obtain experience in different research methodologies or with different populations, each student will be required to complete two laboratory rotations, each lasting a minimum of one semester or quarter. During each rotation, students will enroll in the associated laboratory course. The laboratory rotations must be approved by the student's adviser and the doctoral program faculty member who supervises that laboratory.

Projects. All students will be required to complete two research projects during their first two years of the program (first and second year projects). These projects are usually connected with the laboratory rotations and approved by the doctoral program faculty working in the laboratory. These projects will involve experiment design, data collection, analyses, preparation of a potentially publishable manuscript, and an oral presentation of the research findings at the annual doctoral colloquium. Students will be encouraged to submit their projects for presentation at professional meetings and to submit them to an appropriate journal.

Methods Minor. All students will be required to develop basic expertise in experimental design and statistics, and all students will become familiar with standard techniques for behavioral assessment, e.g., intelligence testing, standardized tests of language ability, analyses of free speech, design and implementation

of experimental measures of language and other related cognitive behaviors. In addition, by the end of the third year, all students will declare a methods minor from one of three options: behavioral dynamics, neural imaging, or neural modeling. It is expected that the student will gain experience in the chosen minor through at least one laboratory rotation and enrollment in applicable courses selected with adviser recommendation.

The **Behavioral Dynamics minor** is intended for students who want to specialize in computer-controlled methods for the study of language and cognitive processing in real-time.

The **Neural Imaging minor** is intended for students who want to complement behavioral studies with neuro-anatomical and neuro-physiological techniques, including event-related brain potentials and functional magnetic resonance imaging.

The **Neural Modeling minor** is intended for students who are interested in the simulation of normal and abnormal language and cognition in artificial neural networks. Students who elect this minor will be required to take Cognitive Science 201F or Computer Science and Engineering 258A as an elective.

Qualifying Examination. After successful completion of the first and second year projects, the student is eligible to take the qualifying examination. The qualifying examination consists of a written component which is to be in the form of a scholarly review of one or more issues related to the student's chosen area of research and an oral component which will be a formal presentation of the paper to be presented at the annual fall doctoral colloquium or at a separate colloquium. Students will be encouraged to write their integrative paper in a form and quality which may be submitted to an appropriate journal.

Teaching. The teaching requirement may be satisfied under one of two options.

Model 1 requires that the doctoral student teach a full course and submit the course syllabus to the Executive Committee for review at the end of the semester/quarter.

Model 2 requires that the doctoral student serve as a TA (SDSU) and/or TA (UCSD) for two courses. The student will develop a syllabus in an area related to one of these courses and present a master lecture to the Executive Committee and an invited audience on a topic in the syllabus chosen by the Executive Committee.

Dissertation Committee. Prior to developing a dissertation proposal, the student must have a dissertation committee. The committee members are recommended by the doctoral program coordinators with consent of the executive committee, and then appointed by the graduate deans of both campuses. The dissertation committee will consist of at least five members, including four from the doctoral program faculty groups (with at least two members from each campus) and one tenured faculty member who is in a different home department than the committee chair.

Dissertation Proposal. The dissertation proposal will take the form of an NIH or NSF grant proposal. For model 1 dissertation (see below), the proposal will be based on completed research which become pilot studies for the grant proposal. The student may be encouraged to submit the grant proposal to support their future research, e.g. post doctoral studies, or a First Investigator Award. For model 2 dissertation, the proposal will become the basis for the dissertation research to be completed. The dissertation proposal must be approved by the student's dissertation committee.

Advancement of Candidacy. A student will be recommended for advancement to candidacy after completing all requirements as described above, including the qualifying examination and the dissertation proposal. Students eligible for advancement to candidacy are recommended to the graduate deans of both institutions. When approved by both institutions, students will be notified by the Graduate Studies office at UCSD. Advancement is required to take place by the end of the student's fourth year. Delay in advancement beyond the fourth year must be approved by the executive committee and then by the dean of graduate affairs at UCSD.

Dissertation. After advancement to candidacy, the remaining requirement will be the satisfactory completion of a dissertation. The dissertation may take one of the following two forms:

Model 1 dissertation. Students who have maintained continuity through their second year project, qualifying examination,

and dissertation proposal, and who have successfully generated publishable research which has been submitted to respected journals, may use a minimum of three such interconnected manuscripts as their dissertation. The dissertation will contain an introduction and review of the literature which conceptually links the submitted studies, the studies themselves (exactly as they have been prepared for publication), and a conclusion which pulls the results together in a broader theoretical framework.

Model 2 dissertation. Students may choose to carry out a more traditional dissertation involving the appropriate written presentation of original research carried out by the student under the guidance of the student's dissertation committee chair.

Dissertation Defense. The dissertation defense will be the same for both dissertation models and will consist of an oral presentation of the dissertation material to the doctoral committee and a publicly invited audience.

Award of the Degree. The Doctor of Philosophy degree in language and communicative disorders will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both institutions.

Financial Support. Funding for graduate students cannot be guaranteed, although every effort will be made to provide students with some form of support through faculty grants, graduate teaching assistantships, research assistantships, or scholarships. The program endeavors to provide financial support that will enable all students to devote full time to study and research training. Financial support will be awarded consistent with the policies of the Divisions of Graduate Affairs at each campus. Tuition and fees will be determined in accord with extant policies at the campus in which the student is matriculated in a given year.

Credential

The School of Speech, Language, and Hearing Sciences offers academic and practica coursework applicable to the Speech Language Pathology (SLP) Credential (Credential Code: 00900), required for working in California public schools.

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 department for school practicum placement in order for the certificate to be processed in time for the placement.

Speech Language Pathology (SLP) Credential in 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 Speech Language Pathology (SLP) Credential in Language, Speech, and Hearing (LSH). A master's degree in speech, language, and hearing sciences is required of all candidates graduating with a SLP credential. Candidates for SLP 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, 546 (or transcript credit in an equivalent course), 618A and/or 619, 618B, 626A, 626B, 626C, 627, 629, 630, 933.
3. The program of professional preparation for the SLP Credential in Language, Speech, and Hearing 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 in Speech-Language Pathology and Audiology by the Council on Academic Accreditation in Audiology and Speech-Language Pathology

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 Council on Academic Accreditation in Audiology and Speech-Language Pathology. The certificate requires a professional doctorate in audiology (see Audiology) and a master's degree in speech-language pathology, and 75 semester units (at least 27 of the 75 semester units must be in basic science coursework, and at least 36 of the 75 semester units must be in professional coursework). At least 30 of the 36 professional coursework units must be in courses for which graduate credit was received. A minimum of 21 of the 30 units must be completed at the graduate level in the professional area for which the certificate is sought. The certificate requires 375 clock hours of supervised clinical observation (25 hours) and clinical practicum (350 hours), and at least 250 or the 350 clock hours must be in the professional area for which the certificate is sought while the applicant is engaged in graduate study. Clock hours must satisfy designated categories for age span, types of disorders, assessment and intervention. The applicant must pass a national examination in the area for which the certificate is sought and complete a Clinical Fellowship (following approval of academic coursework and clinical practica). Consult an adviser in the area in which certificate is desired.

Preparation Leading to State Licensure in Speech Pathology or Audiology

Students may complete the academic and clinical practicum requirements leading to California State Licensure in Speech Pathology or in Audiology, a legal requirement for all individuals professionally employed in non-public school settings and some public school settings. The Speech Pathology and Audiology Examining Committee which operates within the California State Board of Medical Quality Assurance requires a master's degree or equivalent in speech, language, and hearing sciences in the area (Speech Pathology or Audiology) in which the license is to be granted, 300 clock hours of supervised clinical experience, a national examination, and nine months of full-time supervised work experience (Required Professional Experience). Most Licensure and ASHA Certification requirements may be fulfilled concurrently. Consult an adviser in the area in which licensure is desired for specific information.

Bilingual Speech-Language Pathology Certificate

(SIMS Code: 550170)

The Certificate in Bilingual Speech-Language Pathology is designed for students who plan to work with bilingual speakers with communicative disorders. To be a candidate for the certificate, a student must be seeking the master's degree program in speech-language pathology since the certificate is coordinated with these endeavors.

The certificate program requires completion of 13 units to include nine units of substantive coursework and four units of graduate clinical practicum with bilingual speakers with communicative disorders. Based on research and clinical expertise of the faculty, as well as the availability of a clinical population, the certificate is currently focused on Spanish-English communicative disorders. The following core courses are required: Speech, Language, and Hearing Sciences 672, 673, 794. In addition, students must complete 100 hours of graduate clinical practicum in the target language(s). Candidates seeking admission to the certificate program must pass a Spanish proficiency test and satisfy admission requirements to the school as listed in the *Graduate Bulletin*. Students who speak languages for which clinical training is not available (i.e., languages other than Spanish) are encouraged to apply to the specialization in bilingualism within the concentration in speech-language pathology.

Courses Acceptable for Master's and Doctoral Degree Programs in Speech, Language, and Hearing Sciences

(SLHS)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

SLHS 511. Aural Rehabilitation (3)

Prerequisites: Speech, Language, and Hearing Sciences 320, 340. Recommended: Speech, Language, and Hearing Sciences 300, 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.

SLHS 512. Phonological Acquisition and Disorders (3)

Prerequisite: Speech, Language, and Hearing Sciences 320 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

Phonology, phonological development, and phonological disorders as they relate to basic linguistic theory. Concepts considered through critical thinking and problem-solving.

SLHS 513. Foundations of Speech-Language: Development (4)

Prerequisites: Speech, Language, and Hearing Sciences 320, 321, and credit or concurrent registration in Speech, Language, and Hearing Sciences 300.

Speech-language development as related to theories of language acquisition, development, and clinical practice in children from birth to school-age.

SLHS 514. Foundations of Speech-Language: Differences and Disorders in Children (3)

Prerequisite: Speech, Language, and Hearing Sciences 513.

Speech and language disorders and issues related to assessment of and intervention with children from culturally and linguistically diverse populations.

SLHS 521. Speech-Language Screening of Children (1) Cr/NC

Three hours of laboratory.

Prerequisite: Clinic clearance.

Screening speech and language of children in various community facilities and settings.

SLHS 525. Clinical Processes (1-2) Cr/NC

Prerequisite: Consent of instructor.

Clinical issues, policies, and methods in speech-language pathology. Experience in writing lesson plans and clinical reports. Clinical observation to partially fulfill requirements for certification. Maximum credit five units.

SLHS 539. Neuroanatomy and Disorders of Speech and Language (3)

Prerequisites: Speech, Language, and Hearing Sciences 150, 300, 305, and 321; or graduate standing.

Structural and functional neuroanatomy and disorders of speech and language resulting from pathology of the nervous system.

SLHS 546. Clinical Issues in Aural Rehabilitation (2)

Prerequisite: Consent of instructor.

Theoretical, methodological, and technical issues related to the speech-language pathologist's role in facilitating communication in individuals who are deaf or hard-of-hearing.

SLHS 570. Dysphagia (4)

Prerequisite: Consent of instructor.

Measurement techniques and research in dysphagia. Assessment and treatment of dysphagia and swallowing problems in children and adults.

SLHS 580. Communication Processes and Aging (3)

Prerequisite: Twelve upper division units in an appropriate major. Normal and disordered communication processes in the aging.

SLHS 590. Seminar in Research Foundations of Speech, Language, and Hearing Sciences (3)

Prerequisites: Consent of instructor and a grade of B+ (3.3) or better in Speech, Language, and Hearing Sciences 305, 320, 513. Open only to senior speech, language, and hearing sciences majors. Graduate students may not use this course toward program of study.

Specialized study of selected topics in speech, language, and hearing sciences.

SLHS 595. Research Practicum (1-3)

Prerequisites: Consent of instructor and a cumulative GPA of 3.0 or better.

Participation in a specific research activity under faculty supervision. Maximum combined credit of six units of Speech, Language, and Hearing Sciences 595 and 795.

SLHS 596. Selected Topics in Speech, Language, and Hearing Sciences (1-4)

Prerequisites: 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. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

SLHS 600A. Research Methods in Communication Sciences and Disorders (1)

Prerequisite: Admission to the M.A. program in speech, language, and hearing sciences.

Methods of investigation in communication sciences and disorders to include research design, basic statistics, principles of evidence-based practice, ethical conduct in research design and work with human participants. (Speech, Language, and Hearing Sciences 600A, 600B formerly numbered Speech, Language, and Hearing Sciences 600.)

SLHS 600B. Advanced Research Methods in Communication Sciences and Disorders (2)

Prerequisite: Speech, Language, and Hearing Sciences 600A.

Principles of evidence-based practice, single-subject design, statistics for single-subject design, statistics used in longitudinal research and scale development; regression and factor analysis. (Speech, Language, and Hearing Sciences 600A, 600B formerly numbered Speech, Language, and Hearing Sciences 600.)

SLHS 606. Voice, Resonance, and Fluency Disorders (3)

Prerequisite: Consent of instructor.

Normal voice, resonance, and fluency, symptoms and causes of voice, resonance, and fluency disorders and their assessment and management.

SLHS 607. Phonology and Phonological Disorders (3)

Prerequisite: Consent of instructor.

Characterization of phonological disorders, assessment frameworks, intervention strategies. Theoretical frameworks of phonology as applied to and experimentally evaluated in speech-language pathology. Methodology considered within context of clinical cases studies designed to facilitate critical thinking and problem-solving.

SLHS 608. Acquired Neuromotor Speech Disorders (3)

Prerequisite: Consent of instructor.

Theories and clinical methods of diagnosis and intervention pertaining to motor speech disorders (dysarthria and apraxia of speech) in adults.

SLHS 609A. Acquired Neurogenic Language and Cognitive Disorders I (3)

Prerequisite: Consent of instructor.

Theories and clinical methods of diagnosis and intervention pertaining to language and communication disorders in adults with left or right hemisphere brain damage.

SLHS 609B. Acquired Neurogenic Language and Cognitive Disorders II (3)

Prerequisite: Speech, Language, and Hearing Sciences 609A.

Theories and clinical methods of diagnosis and intervention pertaining to cognitive and linguistic disorders in adolescents and adults with traumatic brain injury, dementing illness or frontal lobe impairments.

SLHS 613. Language Disorders: Infancy Through Preschool (3)

Prerequisite: Consent of instructor.

Major theories of language development with focus on early language development; effect of theoretical perspective on approaches to assessment and intervention; development and evaluation of assessment and intervention procedures and instruments.

SLHS 614. Language Disorders: School Age Through Adolescence (3)

Prerequisite: Consent of instructor.

Normal and impaired language development in children five years through adolescence. Assessment and intervention for language disorders across spoken and written modalities.

SLHS 617. Diagnostic Methods in Speech-Language Pathology (3)

Prerequisite: Consent of instructor.

Principles and procedures for culturally relevant assessment of communication disorders in children and adults. Ethnographic interviewing; formal, informal, and unbiased testing; clinical reporting. Practice with selected methods and tools.

SLHS 618A. Diagnostic Practicum in Speech-Language Pathology: Pediatrics (1)

Four hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised clinical practice in diagnostic methods with pediatric clients. Maximum credit six units.

SLHS 618B. Diagnostic Practicum in Speech-Language Pathology: Adults (1)

Four hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised clinical practice in diagnostic methods with adult clients. Maximum credit six units.

SLHS 619. Multidisciplinary Diagnostic Practicum in Speech-Language Pathology (1)

Four hours of supervision.

Prerequisite: Consent of instructor.

Participation in multidisciplinary assessment of infants and toddlers.

SLHS 626A. Pediatric Speech-Language Pathology (0.5)

Two hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised intervention practica with children. Up to two hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 626B. Neurogenic Speech-Language Intervention (0.5)

Two hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised intervention practica with adults with neurogenic communication disorders. Up to two hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 626C. Voice/Fluency/Dysphagia Clinical Intervention (0.5)

Two hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised intervention practica with voice, fluency, and/or swallowing disorders. Up to two hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 627. Advanced Field Clinical Practice in Speech-Language Pathology and Audiology (1-3) Cr/NC

Two hours of therapy, one hour of staffing, and Grand Rounds attendance once per month.

Prerequisite: Consent of instructor.

Supervised practice with speech-language-hearing problems in off-campus settings. Up to 10 hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 629. Professional Skills in Speech-Language Pathology I (1)

Prerequisite: Concurrent registration in Speech, Language, and Hearing Sciences 627.

Development of professional skills to include client advocacy, ethical and legal decision-making, interpersonal skills for team collaboration, and knowledge of professional policies and procedures. Maximum credit three units.

SLHS 630. Professional Skills in Speech-Language Pathology II (1)

Prerequisites: Speech, Language, and Hearing Sciences 617. Minimum of 100 hours of supervised clinical practicum and departmental approval. Concurrent registration in Speech, Language, and Hearing Sciences 933.

Development of professional skills necessary for working successfully in off-campus settings to include caseload management, conflict resolution, professional credentialing requirements, and supervision/leadership skills. (Formerly numbered Speech, Language, and Hearing Sciences 929.)

Speech, Language, and Hearing Sciences

SLHS 672. Seminar in Communicative Disorders in Bilingual Adults (3)

Prerequisites: Speech, Language, and Hearing Sciences 600 and 609A.

Linguistic and cognitive system in normal bilingual adults compared to monolingual peers, and in bilingual adults with language disorders. Assessment and intervention strategies in bilingual adults' communicative and cognitive disorders. Cross-cultural issues in selection of assessment and intervention procedures.

SLHS 673. Seminar in Communicative Disorders in Bilingual Children (3)

Prerequisite: Consent of instructor.

Normal and atypical language development applied to assessment and treatment of communication disorders in bilingual and monolingual children. Alternative assessment and intervention methods.

SLHS 675. Augmentative Communication (2)

Prerequisite: Consent of instructor.

Alternative and augmentative approaches, strategies and technology for individuals with severe communication impairments. Assessment and intervention. Project required.

SLHS 696. Selected Topics in Speech, Language, and Hearing Sciences (1-3)

Prerequisite: Graduate standing.

Intensive study in specific areas of audiology, education of hearing impaired, speech and hearing science, and speech-language pathology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

SLHS 750. Seminar in Language, Cognition, and the Brain: Sign Language Perspectives (3)

Prerequisite: Consent of instructor.

Sign language and deafness research applied to theoretical models of language representation and processing, language acquisition, bilingualism, and the neural organization of language.

SLHS 790. Seminar in Foundations of Language Science (3)

Prerequisite: Consent of instructor.

Current issues, theory, and research concerning language representation, processing, and neurological organization in adults.

SLHS 793. Seminar in Disorders of Language and Cognition/Children (3)

Prerequisite: Consent of instructor.

Language impairment in children, including primary versus secondary language impairment, modular versus processing explanations, relationships between language and cognition, as well as disassociations of development across different populations.

SLHS 794. Seminar in Language Disorders in Multilingual Populations (3)

Prerequisite: Consent of instructor.

Language disorders in linguistically diverse populations. Disorders of phonological, morphological, syntactic, and semantic aspects of target languages and their clinical implications.

SLHS 795. Advanced Research Practicum (3)

Prerequisites: Consent of instructor and approval of director of school.

Participation in a specific research activity under faculty supervision. Maximum combined credit of six units of Speech, Language, and Hearing Sciences 595 and 795.

SLHS 797. Research (1-3) Cr/NC/RP

Prerequisites: Consent of instructor and approval of director of school.

Research in speech-language pathology, deaf education or audiology. Maximum credit six units applicable to a master's degree.

SLHS 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Consent of instructor and approval of director of school.

Individual study. Maximum credit six units applicable to a master's degree.

SLHS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

SLHS 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

SLHS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

DOCTORAL COURSES

SLHS 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Individual investigation to the general field of the dissertation.

SLHS 898. Doctoral Special Study (1-8) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Individual study in the field of specialization. Maximum credit eight units applicable to the doctoral degree.

SLHS 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

CREDENTIAL COURSE

SLHS 933. Clinical Practice in Public Schools (1-4) Cr/NC

Prerequisites: Four units of practica; post-baccalaureate standing; California Basic Education Skills Test; Certificate of Clearance; school approval.

Clinical practice in elementary or secondary schools or community colleges in speech-language pathology. Applies only toward Clinical-Rehabilitative Services Credential (C-RS) or Certificate of Clinical Competency in Speech-Language Pathology (ASHA).

Statistics

IN THE DEPARTMENT OF MATHEMATICS AND STATISTICS
IN THE COLLEGE OF SCIENCES

OFFICE: Geology/Mathematics/Computer Science 413
TELEPHONE: 619-594-6191

Faculty

Michael E. O'Sullivan, Ph.D., Professor of Mathematics,
Chair of Department
Chii-Dean Lin, Ph.D., Associate Professor of Statistics,
Associate Chair of Department
Juanjuan Fan, Ph.D., Professor of Statistics
Richard A. Levine, Ph.D., Professor of Statistics
Kung-Jong Lui, Ph.D., Professor of Statistics
Barbara Ann Bailey, Ph.D., Associate Professor of Statistics
Jianwei Chen, Ph.D., Associate Professor of Statistics
Jorge Carlos Román, Ph.D., Assistant Professor of Statistics

Associateships

Graduate teaching associateships in statistics and biostatistics are available and are awarded on a competitive basis by the Department of Mathematics and Statistics. Application forms and additional information may be secured from the office of the Department of Mathematics and Statistics.

General Information

The Department of Mathematics and Statistics offers graduate study leading to the Master of Science degree in statistics. Students may pursue either the general degree or a concentration in biostatistics that emphasizes statistical methods and applications in the biological, health, and medical sciences.

Statisticians and biostatisticians are engaged in the acquisition and use of knowledge through the collection, analysis, and interpretation of data. Today, almost all disciplines – from economics to engineering, from social science to medicine – employ statistical methods. Such methods are essential in studying relationships, predicting results, and making informed decisions in many different contexts. This diversity of application of this field has stimulated the current demand for well-trained statisticians and biostatisticians at all degree levels.

The Master of Science degree provides advanced training, with emphasis on statistical methodology, and prepares students for careers in industry and government as applied statisticians or biostatisticians, or for entry into a doctoral program in statistics or biostatistics.

As part of the degree requirements, graduate students conduct theses or research projects under the guidance of faculty with active research interests in most general areas of probability, statistics, and biostatistics. These research areas include biostatistical methods, survival analysis, mathematical demography, data analysis, inference, stochastic processes, time series, Bayesian statistics, categorical data analysis, statistical computing, non-parametric statistics, sample surveys, multivariate analysis, linear models, experimental design, and clinical trials.

The graduate programs can prepare students for a teaching career.

Admission to Graduate Study

All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

Specific Requirements for the Master of Science Degree in Statistics

(Major Code: 17021) (SIMS Code: 776369)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the students must meet the following program requirements:

The student should have completed before entering the program the following undergraduate coursework: three semesters of calculus, one semester of linear algebra, and one semester of probability theory. The student should also have working knowledge of a programming language before entering the program. Students lacking some of the above undergraduate coursework may be admitted conditionally and may make up this coursework during the first year of the program (these courses will not be counted toward the degree course requirements).

The student must complete a minimum of 31 units of coursework as described below. Upon entry to the program, the student will be assigned to a graduate adviser in statistics. Thereafter, the adviser will meet with the student each semester and discuss his or her academic program. A program of study must be approved by the graduate adviser in statistics.

1. Complete Statistics 610, 670A, 670B with no grade less than B in each course. These are core statistics courses.
2. Complete nine units of courses in statistics and biostatistics, selected from the following with the approval of the graduate adviser in statistics: Statistics 672, 673, 676, 677, 678, 680A, 680B, 696, 700, 701, 702, 795.
3. Complete three additional units of graduate level or approved 500-level statistics courses, not including Statistics 799A.
4. Complete three additional units of graduate level or approved 500-level courses offered by the Department of Mathematics and Statistics, not including Statistics 799A.
5. Complete three units of approved electives.
6. Complete one unit of Statistics 720.
7. The thesis option (Plan A) requires approval of the graduate adviser and the statistics division faculty member who will chair the thesis committee. Students who choose Plan A must include Statistics 799A in the 31-unit program and are required to pass a final oral examination on the thesis, open to the public.
8. In other cases, Plan B will be followed. Students who choose Plan B are required to complete three additional units of 600- and 700-numbered statistics courses, not including Statistics 799A, and pass a comprehensive written examination. Policy and procedures for the Plan B examination are documented and available from the Department of Mathematics and Statistics.

Specific Requirements for the Master of Science Degree in Statistics with Concentration in Biostatistics

(Major Code: 17021) (SIMS Code: 776370)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must meet the following program requirements:

The student should have completed before entering the program the following undergraduate coursework: three semesters of calculus, one semester of linear algebra, and one semester of probability theory. The student should also have working knowledge of a programming language before entering the program. Students lacking some of the above undergraduate coursework may be admitted conditionally and may make up this coursework during the first year of the program (these courses will not be counted toward the degree course requirements).

The student must complete a minimum of 31 units of coursework as described below. Upon entry to the program, the student will be assigned to a graduate adviser in biostatistics. Thereafter, the adviser will meet with the student each semester and discuss his or her academic program. A program of study must be approved by the graduate adviser in biostatistics.

1. Complete Statistics 610, 670A, 670B with no grade less than B in each course. These are core statistics courses.
2. Complete Statistics 680A, 680B with no grade less than B in each course. These are biostatistics concentration courses.
3. Complete at least six units of courses in biostatistics and statistics, selected from the following with the approval of the graduate adviser in biostatistics: Statistics 520, 560, 580, 596, 672, 673, 676, 677, 678, 696, 700, 701, 702, 795.
4. Complete at least six units of 500-level or graduate courses from a science of application of biostatistics (e.g., bioscience, health science, or medical science), selected with the approval of the graduate adviser in biostatistics. If the student has an undergraduate degree in an area of application of biostatistics, 500-level or graduate mathematical sciences courses may be substituted with the approval of the graduate adviser in biostatistics.
5. Complete one unit of Statistics 720.
6. With approval of the graduate adviser and the faculty member who will chair the thesis committee, the student may choose Plan A and complete three units of Statistics 799A. The chair of the thesis committee must be a faculty member from the division of statistics in the Department of Mathematics and Statistics. One of the other two members of the thesis committee must be a faculty member from a science of application of biostatistics (i.e., bioscience, health science, or medical science). The student must pass an oral defense of the thesis, open to the public.
7. In other cases, Plan B will be followed. Students who choose Plan B are required to complete three additional units of 600- and 700-numbered statistics courses, not including Statistics 799A, and pass a comprehensive written examination. Policy and procedures for the Plan B examination are documented and available from the Department of Mathematics and Statistics.

Courses Acceptable for Master's Degree Programs in Statistics (STAT)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

STAT 520. Applied Multivariate Analysis (3)

Prerequisite: Statistics 350B or comparable course in statistics.

Multivariate normal distribution, multivariate analysis of variance, principal components, factor analysis, discriminant function analysis, classification, and clustering. Statistical software packages will be used for data analysis.

STAT 550. Applied Probability (3)

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)

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)

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)

Prerequisite: Statistics 550 or 551A.

Methods for design and analysis of sample surveys with applications to social and biological sciences. Simple random sampling, stratification and clustering, ratio and regression estimators, subsampling, selected topics in survey methodology.

STAT 570. Stochastic Processes (3)

Prerequisite: Statistics 551A.

Introduction to stochastic processes with selected applications.

STAT 575. Actuarial Modeling (3)

Prerequisite: Statistics 550 or 551A.

Actuarial models and applications of probability and statistics to insurance and other financial risks. Utility theory; risk models, compound processes; survival distributions and life tables; life insurance, annuities and benefits.

STAT 580. Statistical Computing (3)

Two lectures and two hours of activity.

Prerequisite: Statistics 551B.

Machine computation in development, application, and evaluation of advanced statistical techniques. Floating arithmetic and algorithm stability; numerical methods for parameter estimation (including maximum likelihood) and multivariate probability integration; simulation and other computer-intensive statistical techniques.

STAT 596. Advanced Topics in Statistics (1-4)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

STAT 610. Linear Regression Models (3)

Prerequisite: Statistics 551B with a grade of C (2.0) or better.

Methods for diagnostic tools, matrix forms for multiple regression, model fitting and validation, simple and multiple regression models, and variable selection. Applications of methods with R, SAS, and SPSS software. (Formerly numbered Statistics 510.)

STAT 670A-670B. Advanced Mathematical Statistics (3-3)

Prerequisites: Statistics 551A. Statistics 670A is prerequisite to 670B.

Distribution of random variables, characteristic functions, limiting distributions, sampling distributions, hypothesis testing and estimation, optimality considerations, applications of the linear hypothesis, invariance and unbiasedness to analysis of variance and regression problems, sequential techniques, decision theory.

STAT 672. Nonparametric Statistics (3)

Prerequisite: Statistics 551B or 670B.

Theory and application of commonly used distribution-free test statistics, including sign and Wilcoxon tests, and corresponding nonparametric point and interval estimators. Kruskal-Wallis and Friedman tests for analysis of variance, nonparametric regression methods, and other selected topics.

STAT 673. Time Series Analysis (3)

Prerequisite: Statistics 551B or 670B.

Box-Jenkins (ARIMA) methodology for analysis of time series data with statistical software applications. Autocorrelation functions, stationary and nonstationary time series, autoregressive and moving average processes, seasonality. Methods for model-based estimation, diagnostics, and forecasting.

STAT 676. Bayesian Statistics (3)

Prerequisite: Statistics 551B or 670B.

Bayes' theorem; conjugate priors; likelihood principle; posterior probability intervals; Bayes factors; prior elicitation; reference priors; computational techniques; hierarchical models; empirical and approximate Bayesian inference; posterior sensitivity analysis; decision theory.

STAT 677. Design of Experiments (3)

Prerequisite: Statistics 550 or 551A.

Methods for design and analysis of experiments with applications to industry, agriculture, and medicine. Concepts of randomization, blocking, and replication. Incomplete block designs, fractional factorial experiments, response surface methods, selected topics.

STAT 678. Survival Analysis (3)

Prerequisite: Statistics 551B or 670B.

Survival distributions; inference in parametric survival models; life tables; proportional hazards model; time-dependent covariates; accelerated time model and inference based on ranks; multivariate time data and competing risks.

STAT 680A-680B. Advanced Biostatistical Methods (3-3)

Prerequisites: Statistics 551A. Statistics 680A is prerequisite to 680B.

Design, conduct, and analysis of experimental and observational studies including cohort, survival, case-control studies. Multifactor screening. Biological assays.

STAT 696. Selected Topics in Statistics (3)

Prerequisite: Graduate Standing.

Intensive study in specific areas of statistics. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

STAT 700. Data Analysis Methods (3)

Prerequisites: Statistics 610 and 551B or 670B.

Computationally intensive data analysis techniques including random and mixed effects models, repeated measures and longitudinal data analysis, generalized linear models, nonlinear models, and multilevel models.

STAT 701. Monte Carlo Statistical Methods (3)

Prerequisite: Statistics 551B or 670B.

Monte Carlo and simulation intensive methods for development and application of statistical methods such as Monte Carlo and Markov chain Monte Carlo algorithms and inferential procedures; stochastic optimization, EM algorithm, and variants for parameter estimation, importance sampling, variance reduction techniques.

STAT 702. Data Mining Statistical Methods (3)

Prerequisite: Statistics 551B or 670B.

Concepts and algorithms of data mining techniques such as decision trees and rules for classification and regression, clustering, and association analysis.

STAT 720. Seminar (1-3)

Prerequisite: Consent of instructor.

An intensive study in advanced statistics. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a master's degree.

STAT 790. Practicum in Teaching of Statistics (1) Cr/NC

Prerequisite: Award of graduate teaching associateship in statistics.

Supervision in teaching statistics. Lecture writing, style of lecture presentation and alternatives, test and syllabus construction, and grading system. Not applicable to an advanced degree. Required for first semester GTA's. Maximum credit four units applicable to a master's degree.

STAT 795. Practicum in Statistical Consulting (3) Cr/NC

Prerequisite: Statistics 670B.

Statistical communication and problem solving. Short-term consulting to campus clients in design and analysis of experiments, surveys, and observational studies. Heuristics for effective problem identification, client interactions, oral and written presentations.

STAT 797. Research (1-3) Cr/NC/RP

Prerequisites: Six units of graduate level statistics.

Research in one of the fields of statistics. Maximum credit six units applicable to a master's degree.

STAT 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

STAT 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

STAT 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

STAT 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree Registration in 799C limited to two semesters.

Teacher Education

Refer to "Education" in this section of the bulletin.

Television, Film and New Media Production

IN THE SCHOOL OF THEATRE, TELEVISION, AND FILM
IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Dramatic Arts 201
TELEPHONE: 619-594-5091 / **FAX:** 619-594-1391
WEBSITE: <http://ttf.sdsu.edu>

Director of School of Theatre, Television, and Film: Donald J. Hopkins, Ph.D.

Faculty

Gregory C. Durbin, M.F.A., Professor of Theatre, Television, and Film (Area Head of Television and Film Program)

Mark W. Freeman, M.F.A., Professor of Theatre, Television, and Film

Martha M. Lauzen, Ph.D., Professor of Theatre, Television, and Film,

David A. Morong, M.F.A., Professor of Theatre, Television, and Film (Graduate Adviser for Television and Film Program)

Timothy A. Powell, Ph.D., Professor of Theatre, Television, and Film

Aurora Khoo, M.F.A., Associate Professor of Theatre, Television, and Film

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships are available to a limited number of qualified students. Application forms and further information may be obtained from the school.

General Information

The School of Theatre, Television, and Film offers graduate study leading to the Master of Fine Arts in film and television production. This degree prepares students for careers in creative areas of media design and production.

Master of Fine Arts Degree in Film and Television Production

The School of Theatre, Television, and Film, in the College of Professional Studies and Fine Arts, offers graduate study leading to the Master of Fine Arts degree in film and television production. This degree stresses hands-on creative endeavors. It is especially useful for those pursuing careers in film, television, radio, or related production activities where a sophisticated and disciplined ability to conceive, initiate, and complete original media is required. Graduates of this program gain the essential education, technical training, and creative experience necessary for professional careers and/or teaching. The degree offers advanced study in the history and criticism of broadcasting and film; scriptwriting; financing, preproduction, and postproduction; advanced audio, video, and film production; production design and art direction; international cinema; and development of production expertise in a wide range of emerging communication technologies. The Master of Fine Arts degree in film and television production emphasizes advanced media design and production. Admission to this degree program requires undergraduate preparation, documented through submission of a portfolio reel of previous creative activity or other evidence of relevant creative activity. Postbaccalaureate students who are without previous media production education or experience and who wish to learn television and film production should consider pursuing a second bachelor's degree in media production or completing basic production courses elsewhere before enrolling in graduate study at San Diego State University.

Teaching facilities in the School of Theatre, Television, and Film include a large state-of-the-art television studio, digital editing suites, Foley room, animation suite, scene shop and an equipment checkout center stocked with film and digital cameras and

recording equipment, lighting, and grip equipment. Major public broadcasting stations, KPBS-TV and KPBS-FM, are located on campus and offer internship opportunities. The university operates a campuswide, closed-circuit, instructional television service and Multimedia Center, and is also home to the International Center for Communications and a student-operated radio station. San Diego offers abundant internship opportunities in production companies and television and radio stations, such as the leading cable carrier, Cox Communications.

Admission to Graduate Study

Students will be admitted for the fall semester only. Application packages must be received and complete by the previous March 1.

In addition to meeting the general requirements for admission to the university with classified graduate standing, as outlined in Part Two of this bulletin, students applying for admission to the Master of Fine Arts degree in film and television production are evaluated according to the following criteria:

1. Undergraduate major or minor in television, film, or a related communication discipline. Those lacking adequate undergraduate preparation or equivalent professional experience for the program should consider enrolling in media courses at community colleges or in intensive craft training programs before applying to the program.
2. Minimum grade point average of 3.0 (when A equals 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).
3. The Graduate Record Examination (GRE) is required of all applicants; however, in some cases it may be waived. The waiver may be granted for an applicant who, at the time of application, (a) earned a bachelor's degree at a U.S. institution with a final GPA of at least 3.0, or (b) has a bachelor's degree in progress at a U.S. institution and current GPA is at least 3.25. Applicants who meet either criteria will be granted the waiver when an official transcript has been provided and reviewed by the department and Graduate Admissions. International applicants and students below the target GPA must take the GRE. Applicants taking the GRE must post a verbal score of 450 or higher; a quantitative score of 450 or higher; a combined verbal and quantitative score of 950 or higher; and a GRE writing assessment (GRE-W) of level 4 or higher. For applicants deficient in the GRE quantitative, a score of 450 or higher on the GRE analytic may be substituted.
4. All graduate and post-baccalaureate 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 applicants who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must submit official TOEFL or IELTS results. The minimum TOEFL required score for admission is 80 for the iBT test or 550 for the PBT test. The minimum required IELTS score for admission is 6.5. Please note scores must be recent; within the past two years.

- Students who have received a M.A. degree in film, television and new media production from SDSU within the past six years may apply for this degree and transfer up to 24 credits from the M.A. degree toward this M.F.A. Applicants holding a M.A. or pursuing a M.F.A. from an acceptable accredited institution may transfer up to 18 units upon review and recommendation by the graduate adviser and with approval of the dean of the Division of Graduate Affairs.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Theatre, Television, and Film.

Graduate Admissions

The following materials should be submitted together directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

- Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
- GRE scores (<http://www.ets.org> SDSU institution code 4682);
- English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Theatre, Television, and Film

The following admissions materials must be submitted electronically by April 1:

- Three letters of recommendation. At least one letter from an academic reference and at least one letter from a professor or professional acquainted with the applicant's creative activities;
- Curriculum vitae or resume that includes any film and/or video production experience you have had;
- Evidence the applicant can provide creativity relevant to media productivity, technical skill level, and command of the medium. Generally, a sample reel is the most useful. The sample reel may be uploaded, delivered by link to a website such as Vimeo or YouTube, or sent directly to the department on a USB flash drive. Detailed instructions are provided on the school's website at <http://ttf.sdsu.edu>. Include work in which applicant held a key creative role (writer/director, cinematographer, editor, sound designer, production designer). Credits must be clearly indicated. Even though long work may be submitted, no more than 10 minutes of the work provided will be viewed, so cue, or specify appropriate cueing, of sample. In lieu of a sample reel, other examples might include a sample of original textual work (play, story, or screenplay for writers/directors) or visual material (drawings, storyboards, designs, or studio photography that may reflect lighting, framing, or composition skills);
- A list, by author and title, of six books (essays, novels, plays) that have influenced applicant artistically;
- A list of three films (documentaries, experimental, narratives), plays or television programs that applicant admires, devoting one paragraph to each work;
- A list and description (in a sentence) of applicant's hobbies and interests outside of film, theatre, and video;
- Personal Statement: A short essay describing your creative and career goals and how you think this program will benefit you. (Maximum two pages.)

Admission to the program is competitive, and satisfying these requirements does not guarantee admission. The decision to admit is based on consideration of the entire application file; promising applicants in unusual circumstances are encouraged to apply.

Students accepted for graduate study in the Master of Fine Arts degree in film and television production are initially admitted with conditional graduate standing (classified). Full classified standing is awarded only after the student has completed Television, Film and New Media 605 with a grade of B or better.

Advancement to Candidacy

In addition to meeting the general requirements for advancement to candidacy described in Part Four of this bulletin, students seeking the Master of Fine Arts in film, and television production must complete Television, Film and New Media 670 with a grade of B or better prior to advancement.

Specific Requirements for the Master of Fine Arts Degree

(Major Code: 10102) (SIMS Code: 667309)

Candidates for the Master of Fine Arts degree in film and television production must complete 54 units of coursework to include the following:

- Fifteen units of core preparation courses comprised of Television, Film and New Media 601, 605, 610, 625, and 670.
- Six units of production electives selected from Television, Film and New Media 522, 540, 621, 627, and 662.
- Nine units of critical studies courses comprised of Television, Film and New Media 530, 563, and 571.
- All students will take Plan B (Comprehensive Examination) and enroll in nine units of capstone project preparation to include Television, Film and New Media 675 and 790.
- With approval of the graduate adviser, 15 additional graduate units in Television, Film and New Media, Theatre, and other departments.
- No more than nine units of electives outside the School of Theatre, Television, and Film.

Courses Acceptable for Master of Fine Arts Degree Program in Film and Television Production (TFM)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

TFM 510. Advanced Script Writing for Television and Film (3)

Prerequisite: Television, Film and New Media 314 (or consent of instructor).

Scripting of dramatic original and adaptation forms, and documentary. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

TFM 522. Advanced Film and Television Cinematography (3)

Two lectures and three hours of laboratory.

Prerequisite: Television, Film and New Media 314 (or consent of instructor).

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 530. Selected Topics in Genre Studies for Television and Film (3)

Prerequisites: Television, Film and New Media 310 and 330. Open only to television, film and new media majors in upper division standing.

Film and television genres (noir, western, comedy, musical, science fiction, soap opera, etc.) including key media texts, aesthetics, themes, history, and social context. May be repeated with new course content. See *Class Schedule* for specific content. Maximum credit six units.

TFM 540. Documentary Production (3)

Two lectures and three or more hours of activity.

Prerequisites: Television, Film and New Media 314 and 361.

Hands-on field experiences in documentary production to include research and writing techniques, investigative procedures, interviewing, shooting and editing. Analyze significant documentaries.

TFM 550. Art Direction for Television and Film (3)

One lecture and four hours of activity.

Prerequisites: Television, Film and New Media 350; 361 or 362 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 practical aspects of design for television and film. Experience in scenic design, graphics, set decoration, budgeting, and scheduling.

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. Development of designs and analysis of technical requirements for fictional and nonfictional productions.

TFM 552. 3D Digital Storytelling (3)

Two lectures and three hours of activity.

Prerequisite: Television, Film and New Media Production 350 or Theatre 440.

Narrative in animation. Pre-production and production techniques in 3D animated film.

TFM 558. Costume Design for Television and Film (3)

Prerequisites: Theatre 452 and 530A or 530B.

Advanced studies in costume design. Budgeting and departmental management, character development, design problems, materials, production, rendering layout, script breakdowns.

TFM 559. Digital Design for Film and Stage (3)

Prerequisite: Television, Film and New Media 350 or Theatre 440.

Theories and applications of commonly used 3D modeling programs in the entertainment industry. See *Class Schedule* for specific content. Maximum credit six units.

TFM 560. Advanced Film (3)

Two lectures and more than three hours of activity.

Prerequisites: Television, Film and New Media 314 (or consent of instructor) and 362.

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.

Prerequisite: Television, Film and New Media 314 (or consent of instructor).

Production processes and techniques to include producing, critical analysis, directing, digital cinematography, and editing of scripted projects. Experience in individual and university-sponsored productions.

TFM 563. Documentary: History and Theory (3)

Prerequisites: Television, Film and New Media 160 for undergraduate students. Admission to the M.A. in television, film and new media for graduate students.

Persuasive concepts, techniques, and forms in documentary film. Major historical works and their impact on society. (Formerly numbered Television, Film and New Media 462.)

TFM 571. Selected Topics in Director Studies (3)

Prerequisites: Television, Film and New Media 310 and 330. Open only to television, film and new media majors in upper division standing.

Historical significance of and theoretical approaches to major media directors (Welles, Hitchcock, Spielberg, etc.) including breadth of work, cultural and generic contexts, aesthetic innovation, and recurring themes. May be repeated with new content. See *Class Schedule* for specific topic. Maximum credit six units.

TFM 573. Selected Topics in History of Film, TV, and Media (3)

Prerequisites: Television, Film and New Media 310 and 330. Open only to television, film and new media majors in upper division standing.

Media history including cultural and generic developments, patterns of exhibition, technological influences, significant creative and industrial figures, commercial and social contexts. May be repeated with new content. See *Class Schedule* for specific topic. Maximum credit six units.

TFM 590. Directing for Film and Television (3)

One lecture and six hours of activity.

Prerequisite: Television, Film and New Media 314 (or consent of instructor).

Directing fundamentals and production to include script analysis, director's preparation and directing actors.

TFM 596. Selected Topics in Television, Film and New Media (1-4)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

TFM 601. Business Aspects of Film (3)

Prerequisite: Admission to M.F.A. program.

Business aspects of independent film production to include television and Internet streaming. Culture and practices of the film industry in context of career development.

TFM 605. Seminar: Production for Television and Film (3)

Prerequisite: Admission to M.F.A. program.

Film and television production. Lectures and production of two short media projects that link research to artistic process and familiarize students with all aspects of the television, film and new media program.

TFM 610. Seminar in Writing for Television and Film (3)

Prerequisite: Admission to M.F.A. program.

Non-dramatic and dramatic structures as they apply to non-fiction and fiction television programs and films. Writing full length script or scenario. Maximum credit six units applicable to a master's degree.

TFM 621. Sound Design for Film (3)

Two lectures and two hours of activity.

Prerequisite: Graduate standing.

Digital audio production for film, to include automated dialog replacement (ADR), field acquisition, Foley, mixing, sound editing, sweetening.

TFM 625. Seminar: Writing Short Narrative and Documentary Films (3)

Prerequisite: Classified graduate standing.

Creating scripts for short narrative films and documentary productions.

TFM 627. Film Editing and Postproduction (3)

One lecture and four hours of activity.

Prerequisite: Graduate standing.

Theory and practice of film editing to include color grading, digital post-production workflow, sound and picture cutting.

TFM 662. Scene-Based Film Production (3)

One lecture and six or more hours of activity.

Prerequisite: Graduate standing.

Single camera techniques in production of narrative fiction to include scene construction and production roles. Crew-based location and studio production.



TFM 670. Seminar: Midway Review Production (3)

Prerequisites: Television, Film and New Media 605 and 625.

Development and completion of midway project for presentation before faculty jury. Research, presentation and analysis of related work, and creative engagement with material and subject matter to include retrospective written analysis of the work.

TFM 675. Seminar: Research and Bibliography in Media Production (3)

Prerequisites: Television, Film and New Media 670 and six units selected from Television, Film and New Media 470, 530, 563, 571, 573, and consent of instructor.

Methods of research, critical analysis, and writing in relation to creative work. (Formerly numbered Television, Film and New Media 600.)

TFM 790. Portfolio/Examination Preparation (3)

Prerequisites: Television, Film and New Media 675 with a grade of B (3.0) or better and advancement to candidacy.

Supervised preparation for portfolio review and oral defense. Maximum credit six units.

TFM 798. Special Study (1-3) Cr/NC/RP

Individual study. Contract required. Arranged with graduate coordinator in area of study. Maximum credit six units applicable to a master's degree.

TFM 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

TFM 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Following assignment of RP in Course 799A, registration in this course is required in any semester in which the student expects to use the facilities and resources of the university; also student must be registered in this course when the completed thesis or project is granted final approval.

Theatre Arts

IN THE SCHOOL OF THEATRE, TELEVISION, AND FILM
IN THE COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

OFFICE: Dramatic Arts 201
TELEPHONE: 619-594-6363 / **FAX:** 619-594-7431
WEBSITE: <http://ttf.sdsu.edu>

Faculty

Donald J. Hopkins, Ph.D., Professor of Theatre, Television, and Film, Director of School
Denitsa D. Bliznakova, M.F.A., Professor of Theatre, Television, and Film
Ralph Funicello, B.F.A., The Don W. Powell Chair in Scene Design
Paula Kalustian, M.F.A., Professor of Theatre, Television, and Film, Emeritus
Margaret C. Larlham, M.A., Professor of Theatre, Television, and Film, Emeritus
Randy S. Reinholz, M.F.A., Professor of Theatre, Television, and Film
Danielle J. Bedau, M.F.A., Associate Professor of Theatre, Television, and Film
Peter J. Cirino, M.F.A., Associate Professor of Theatre, Television, and Film
Robert S. Meffe, M.M., Associate Professor of Theatre, Television, and Film (Graduate Adviser)
Stephen M. Brotebeck, M.F.A., Assistant Professor of Theatre, Television, and Film
Michelle Orr, Ph.D., Assistant Professor of Theatre, Television, and Film (Graduate Adviser)

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships are available to a limited number of qualified students. Application forms and further information may be obtained from the school.

The Don W. Powell Chair in Scene Design

The Don W. Powell Chair in Scene Design was established through a trust provided by the late professor emeritus. Always concerned about students, Powell, who retired after 30 years with the theatre department, created the trust in order to enhance theatre education at S.D.S.U. The current Don W. Powell Scene Design Chair is the nationally acclaimed designer Ralph Funicello.

General Information

The School of Theatre, Television, and Film offers graduate study leading to the Master of Arts degree and the Master of Fine Arts degree in theatre arts. Graduates in these programs learn in the artist-scholar model and are prepared for careers as practitioners and educators. The Master of Fine Arts degree is offered in the areas of acting, design/technical theatre, and musical theatre. The M.A. is a 30-unit program; the M.F.A. a 60-unit program. Both programs of study limit the number of students accepted in order to offer individual attention and extensive opportunity to participate in theatre production. The Dramatic Arts building contains the proscenium-style Don Powell Theatre seating 500, with state-of-the-art computer lighting and sound control, and the flexible Experimental Theatre seating 200, rehearsal and recording areas, a design studio and CADD laboratory, paint shop, wagon house, scene shop, and fully equipped costume laboratory. The theatre arts degree is accredited by the National Association of Schools of Theatre (N.A.S.T.).

Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/> apply along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Theatre, Television, and Film.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes) from all post-secondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

Master of Arts Degree in Theatre Arts

The following materials should be mailed or delivered to:

School of Theatre, Television, and Film

(Attention: M. A. Program)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7601

1. Three current and relevant letters of recommendation from individuals familiar with the applicant's academic ability.

Master of Fine Arts Degree in Theatre Arts Concentration in Acting

No students admitted to program at this time.

Master of Fine Arts Degree in Theatre Arts Concentration in Design and Technology

The materials as outlined under Admission to the Degree Curriculum should be mailed or delivered to:

School of Theatre, Television, and Film

(Attention: Design Program)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7601

Master of Fine Arts Degree in Theatre Arts Concentration in Musical Theatre

This program admits new students every other year only.

The materials as outlined under Admission to the Degree Curriculum should be mailed or delivered to:

School of Theatre, Television, and Film

(Attention: Musical Theatre Program)
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-7601

Master of Arts Degree in Theatre Arts

Admission to the Degree Curriculum

General requirements for admission to the university with classified graduate standing are described in Part Two of this bulletin. In addition, the student's area adviser will judge the applicant capable of graduate work in theatre arts. The judgment will be based on (1) the applicant's transcripts of prior academic work; (2) three current and relevant letters of recommendation from individuals familiar with the applicant's academic ability; (3) the applicant's scores on the GRE General Test; (4) the applicant's scores on the GRE Writing Assessment Test; and (5) an interview, when appropriate, revealing the applicant's ability to succeed in the chosen area. Application deadline is February 1. To inquire about the program, including spring admission, contact the director of the M.A. program. Visit our website at <http://ttf.sdsu.edu> for current contact information.

Advancement to Candidacy

All students in the Master of Arts program must meet the general requirements for advancement to candidacy, as described in Part Four of this bulletin. In addition, students seeking the Master of Arts degree in Theatre Arts (regardless of area of specialization) are required to have completed Theatre 600, and to have removed any deficiencies assigned. It is recommended that all graduate students take Theatre 600 during their first semester.

Specific Requirements for the Master of Arts Degree

(Major Code: 10071) (SIMS Code: 662504)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student must complete a graduate program of a minimum of 30 units to include Theatre 600, 610, 621, 647A or 647B or 649, and 799A for students in Plan A or 790 for students in Plan B, and successful completion of the comprehensive examination for all Master of Arts candidates. Eighteen of the 30 units must be in 600- and 700-numbered drama courses and the remaining 12 units may be selected from 500-, 600-, or 700-numbered courses. A maximum of nine units may be elected outside the Theatre department.

Master of Fine Arts Degree in Theatre Arts

Admission to the Degree Curriculum

In addition to meeting the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin, a student must satisfy the following requirements before being recommended for classified graduate standing:

1. Possess a baccalaureate degree in theatre or an approved affiliated field with a grade point average of not less than 2.85 overall in the last 60 units of study attempted and a 3.0 undergraduate average in the major.
2. Complete undergraduate requirements commensurate with the proposed concentration in the M.F.A. program.
3. Satisfy additional concentration requirements listed below.

Students who have not met certain criteria or demonstrate deficiencies in undergraduate preparation or basic skill development, may be granted conditional admission with the understanding that remedial coursework will be completed prior to advancement to classified standing. Remedial coursework cannot be applied to the 60-unit minimum requirement for the degree. Students who do not satisfy the requirements for an M.F.A. degree will not automatically be considered for an M.A. degree. A student holding an M.A. degree in theatre arts from San Diego State University or any other institution of higher learning must formally apply for the M.F.A. degree. PLEASE NOTE: Applicants holding an M.A. or M.F.A. degree from an accredited institution may transfer up to 30 units upon review and recommendation of the faculty in the area of specialization, and the graduate coordinator of the School of Theatre, Television, and Film, and the approval of the graduate dean.

Students already accepted into the program who request a change of specific concentration at a later date, will be required to meet the admission requirements for the new concentration.

Concentration in Acting

No students admitted to program at this time.

In addition to meeting the admission requirements listed above, a student must demonstrate exceptional artistic talent in the acting area by providing:

1. Curriculum vitae or resume of acting accomplishments.
2. An audition, either in person or via video, which would include two contrasting works: one contemporary piece and one classical piece from Shakespearean drama (total time not to exceed 12 minutes).
3. Three letters of recommendation attesting to the candidate's academic qualifications and level of competence in acting.

For specific audition dates and locations, write to the Director, Graduate Acting Program, School of Theatre, Television, and Film, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-7601.

Concentration in Design and Technology

In addition to meeting the admission requirements listed above, a student must demonstrate outstanding abilities in a particular area of design and technology by submitting the following items.

1. Those students primarily interested in design must submit a design portfolio which contains sketches, renderings, graphics, floor plans, elevations, plots, color/fabric swatches, and photographs of productions, revealing the applicant's creative ability in the chosen area or areas of design.
2. Those students primarily interested in technology must submit a portfolio which contains evidence of technical direction and management experiences in scenic, lighting, or costume technology and design.
3. Curriculum vitae or resume which contains documentation of participation in not less than five full-length theatrical productions.
4. Three letters of recommendation attesting to the candidate's academic, professional and personal qualifications from academic or professional theatre sources.

For specific interview dates and locations, write to the Director, Design Program, School of Theatre, Television, and Film, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-7601 or visit our website at <http://ttf.sdsu.edu>.

Concentration in Musical Theatre

This program admits new students every other year only.

In addition to meeting the admission requirements listed above, a student must demonstrate professional potential in musical theatre by providing:

1. Curriculum vitae or resume of musical theatre accomplishments.
2. An audition, either in person or via video, to include two contrasting vocal selections.
3. Three references attesting to the candidate's academic qualifications and level of competence in the areas of acting, singing, and dancing.
4. Submit online program application available at: http://ttf.sdsu.edu/index.php/degree_programs/mtmf/mfa-musical-theatre-application-audition-info.

For specific audition dates and locations, write to the Director, Musical Theatre Program, School of Theatre, Television, and Film, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-7601 or visit our website at <http://ttf.sdsu.edu>.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Part Four of this bulletin. Candidates for the M.F.A. must have completed 30 units within their official program with a minimum grade point average of 3.0. A minimum of 24 units in the official program must be enrolled in and completed concurrently with or after advancement to candidacy. Students seeking the Master of Fine Arts with a concentration in musical theatre are required to have completed Theatre 600 and remove any deficiencies noted by the faculty.

Specific Requirements for the Master of Fine Arts Degree

(Major Code: 10072) (SIMS Code: 662505)

Forty-five of the 60 units required must be completed in courses numbered 600 or above. The remaining units may be selected from 500-, 600-, or 700-numbered courses in theatre or outside departments.

At least 30 units of the student's program must be completed in residence at San Diego State University, and the student must be in residence not less than two semesters. No more than six units in 798 will be accepted for credit toward the degree.

Concentration in Acting (SIMS Code: 662517)

No students admitted to program at this time.

Candidates for the M.F.A. with a concentration in acting, in addition to meeting the requirements for classified graduate standing, must complete a 60-unit graduate program consisting of the following courses: Theatre 600, 610, 621, 630 (maximum two units), 746, 795, 799A.

Twelve additional units are to be selected from courses acceptable for graduate credit in the following areas: theatre, art, communication, education, English and comparative literature, exercise and nutritional sciences, history, linguistics, music, television, film, and new media. It is recommended that students include at least three units from Theatre 532, 533A among the 12 units of electives. In special circumstances, additional courses acceptable for graduate credit in other departments may be selected with the approval of the student's adviser.

Students in the concentration in acting will be reviewed by a faculty panel each semester to determine if their progress warrants continuation in the program. In conjunction with the completion of Theatre 746 and 799A, students must complete an adjudicated performance thesis project established and approved by their thesis committee. This project will be supported by a written thesis project report (analysis/apologia).

Concentration in Design and Technology (SIMS Code: 662508)

Candidates for the M.F.A. with a concentration in design and technology, in addition to meeting the requirements for classified graduate standing, must complete a 63-unit graduate program to include 24 units of core courses: Theatre 530A, 530B, 610, 643 (nine units), 644; Television, Film and New Media 605.

Eleven to 12 units of electives selected by student and adviser from graduate level courses to include Theatre 539, 540, 546, 547, 548, 552, 553, 554A, 554B, 645; Television, Film and New Media 522, 550, 551, 558.

Eleven to 12 additional units of electives selected by student and adviser from graduate level courses to include Theatre 541, 545, 546, 548, 549, 550, 554A, 554B, 556, 557, 570A, 596, 621, 643, 645, 798; Television, Film and New Media 550, 559.

The student must also complete 16 units of practicum, internship and comprehensive examination consisting of Theatre 642 (four units), 746, 790, and 795 (six units).

Concentration in Musical Theatre (SIMS Code: 662587)

Candidates for the M.F.A. with a concentration in musical theatre, in addition to meeting the requirements for classified graduate standing, must complete a 60-unit graduate program which includes a core of courses totaling 48 units as follows: Theatre 555B (maximum credit eight units), 600, 620A, 620B, 622A, 622B, 623, 627 (maximum credit 16 units), 630 (maximum credit four units), 650, and 659. The student must also complete nine units of Theatre 746, 795 (minimum three units), and either 799A for students in Plan A or 790 for students in Plan B.

Three additional units are to be selected with the approval of the student's graduate adviser from courses acceptable for graduate credit.

Candidates will either: (Plan A) successfully prepare a written thesis project report or (Plan B) successfully complete a comprehensive examination.

Courses Acceptable for Master's Degree Programs in Theatre Arts (THEA)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

THEA 510. Creative Drama and Language Arts (3)

Prerequisite: Theatre 310 or 315.

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 515. Playwriting (3)

Prerequisite: Theatre 325 or graduate standing.

Writing for the stage and public presentation. Characterization, dialogue, and formal experimentation when writing short plays.

THEA 525. Dramaturgy (3)

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. May be repeated with new content. Maximum credit six units.

THEA 530. Period Dress and Decor (3)

Prerequisite: Theatre 240 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 Topics in Stage and Screen Performance (3)

Two lectures and two hours of activity.

Prerequisites: Theatre 332 and either Theatre 320 or 355.

Theory and practice in performance from theatre, television, and film to include physical theatre, voice and speech, film and theatre performance styles, intercultural theatre, devised work. May be repeated with new content. Maximum credits six units.

THEA 533A. Theory and Styles in Acting and Directing I (3)

Prerequisites: Theatre 332 and either Theatre 320 or 355.

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)

Four hours of activity.

Prerequisite: Theatre 240.

Rendering for scenic, costume, and lighting designers. Techniques, media, and portfolio preparation. Maximum credit four units.

THEA 540. Scene Design II (3)

Prerequisites: Theatre 440 and 530A or 530B.

History of scene design and application of contemporary styles to various types of dramatic productions.

THEA 541. Scene Painting (2)

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)

Four hours of activity.

Prerequisite: Theatre 240 or admission to M.F.A. in design.

Theatre drafting standards and techniques. Floor plans, sections, elevations, perspective drawings, and light plots.

THEA 546. CADD for the Theatre (2)

Four hours of activity.

Prerequisite: Theatre 545.

Computer aided drafting applications for theatre designers.

THEA 547. Lighting Design II (3)

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)

Two lectures and two hours of activity.

Prerequisites: Theatre 240, 325, or Music 360, 460.

Theories and techniques of sound design and reinforcement for theatrical performance. Laboratory experience in sound production.

THEA 549. Lighting and Sound Technology (2)

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)

Four hours of activity.

Prerequisite: Theatre 440, 447, 452, or 546.

Application of computer software for theatre, including scenery, costume, lighting, and sound design. Maximum credit four units.

THEA 552. Costume Design II (3)

Prerequisites: Theatre 452 and 530A or 530B.

Advanced studies in costume design. Emphasis on theatrical style, rendering layout, design problems, materials, and budget.

THEA 553. Technical Direction (3)

Two lectures and three hours of activity.

Prerequisites: Theatre 240, 442.

Modern technical direction including project management (budgeting and procurement, managing employees); design and engineering; automation, rigging, advanced stagecraft (metalcraft, CNC machinery, composite construction), and safety. Maximum credit six units.

THEA 554A. Costume Design Technology I (2)

Four hours of activity.

Prerequisite: Theatre 240.

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)

Four hours of activity.

Prerequisite: Theatre 240.

Advanced costume craft construction techniques and management procedures for costume production: millinery, fabric dyeing and painting, jewelry, and related crafts. Maximum credit four units.

THEA 555A. Movement for the Theatre II (2)

Four hours of activity.

Prerequisites: Theatre 332 and 355.

Movement techniques for the theatre. Movement patterns, phrase development, and partnering leading to scene work. Maximum credit four units.

THEA 555B. Movement for the Theatre II (2)

Four hours of activity.

Prerequisites: Admission to the M.F.A. musical theatre program. Consent of instructor for undergraduates.

Musical theatre movement and dance styles. Maximum credit eight units.

THEA 556. Digital Communication for Lighting Design (2)

One lecture and three hours of laboratory.

Prerequisite: Theatre 447 or admission to the M.F.A. in design and technical theatre.

Application of Lightwright, Vectorworks, and other industry-standard software programs to produce 2D/3D light plots, 3D lighting renderings, and professional quality lighting design package documentation. Communication techniques, drawing organization, and industry practices.

THEA 557. 3D Fabrication for Entertainment Design (2)

One lecture and three hours of laboratory.

Prerequisite: Theatre 240 or admission to the M.F.A. in design and technical theatre.

Theory and practice of basic principles of 3D printing and scanning for theatrical use. Basics of fused deposition modeling manufacture. Sourcing and creating 3D models. Creation and realization of original work.

THEA 570. Practicum in Theatrical Production (1-3)

Prerequisite: Theatre 440, 447, or 452; or admission to M.F.A. in design.

Design projects in areas of scenery, costume, lighting, sound, or makeup. Maximum credit six units for Theatre 570A and six units for Theatre 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)

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES

THEA 600. Writing for Theatre (3)

Prerequisite: Admission to graduate program in theatre arts.

Advanced study of forms and methods of writing to include critical writing for theatre. Making appropriate rhetorical choices for different writing contexts and the uses of research in writing. (Formerly numbered Theatre 600A and 600B.)

THEA 610. Seminar in Design Aesthetics for Theatre, Television, and Film (3)

Prerequisites: Admission to graduate program in theatre arts or television, film and new media production.

Aesthetic theories and practice. Design aesthetics as applied to theatre, television, film and new media production

THEA 620. Seminar in History of Musical Theatre (3)

Prerequisite: Admission to M.F.A. musical theatre program.

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 621. Seminar in Theories of the Theatre (3)

Prerequisite: Minimum three units of upper division theatre history.

Theories of dramatic literature and performance, reflecting major stylistic movements and aesthetic philosophies of the stage from the classical Greeks to today (e.g., Aristotle, Lessing, Appia, Brecht, and Grotowski).

THEA 622A-622B. History of Musical Theatre Laboratory (1-1) Cr/NC

Three hours of laboratory.

Prerequisite: Admission to M.F.A. musical theatre program.

Laboratory component of Theatre 620A-620B. Theatre 622A must be taken concurrently with Theatre 620A; Theatre 622B must be taken concurrently with Theatre 620B.

THEA 623. Seminar in Musical Theatre Script and Score Analysis (3)

Prerequisite: Admission to M.F.A. musical theatre program.

Representative works from musical theatre analyzed in terms of dramatic and musical aesthetics.

THEA 627. Musical Theatre Studio (4)

Eight hours of activity.

Prerequisite: Admission to M.F.A. musical theatre program.

Acting, singing, and movement skills in relation to musical theatre performance. Maximum credit 16 units.

THEA 630. Individual Vocal Instruction (1)

Prerequisite: Admission to M.F.A. musical theatre program.

Individual voice instruction/coaching for students in M.F.A. musical theatre program. Maximum credit four units.

THEA 642. Theatre Practicum Skills (1) Cr/NC

Prerequisite: Admission to M.F.A. in design and technical theatre program.

Design projects for department productions. To be arranged with area adviser. Should be repeated each semester during the first two years of study for maximum credit four units.

THEA 643. Collaborative Studies in Design (3)

Two lectures and two hours of activity.

Prerequisite: Admission to M.F.A. design and technical theatre program. This course must be repeated each semester by the M.F.A. design student for a maximum of 12 units.

Design of theatrical productions with emphasis on artistic collaboration and integration of scenery, costumes and lights. Attention to graphic presentation techniques as well as designs produced.

THEA 644. Seminar in Contemporary Designers (3)

Prerequisite: Theatre 643.

Major set, costume, and lighting designers working in contemporary theatre, film, and television.

THEA 645. Seminar in Theatrical Lighting (3)

Prerequisite: Theatre 547.

Advanced studies in lighting for entertainment design. Investigation of related fields in lighting. Advanced case studies involving use of color and distribution of light. Maximum credit nine units.

THEA 647. Seminar in History of Theatre and Performance (3)

Prerequisite: Admission to M.A. or M.F.A. theatre arts program.

A. Before 1900

B. After 1900

THEA 649. Topics in World Theatre (1-3)

Prerequisite: Admission to M.A. or M.F.A. theatre arts program.

Intensive study in specific areas of world theatre. Forms, technologies, genres, cultural expressions, and contemporary developments. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units applicable to the M.A. or M.F.A. degree in theatre arts.

THEA 650. Seminar in Musical Theatre Dance History (3)

Prerequisite: Admission to M.F.A. musical theatre program.

Study of choreographic styles of musical theatre.

THEA 659. Musical Theatre Stage Direction (3)

Prerequisite: Admission to M.F.A. musical theatre program.

Special problems in directing for the musical theatre.

THEA 669. Rehearsal Methods for the Musical Theatre Director (3)

Prerequisite: Theatre 659.

Rehearsal methods used in directing a full length musical.

THEA 696. Advanced Topics in Theatre Arts (1-3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of theatre arts. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

THEA 746. Theatre Internship (3) Cr/NC

Prerequisites: Theatre 621 and consent of graduate coordinator and program director.

Professional field experience in areas of design/technical theatre, acting, directing, musical theatre, and theatre for young audiences.

THEA 790. Directed Readings in Theatre Arts (3) Cr/NC

Prerequisite: Advancement to candidacy.

Preparation for the comprehensive examination for those students in the M.F.A. program under Plan B.

THEA 795. Practicum in Theatre Arts (1-6)

Prerequisite: Theatre 621.

Faculty supervised projects leading to public presentation. Maximum credit six units.

THEA 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Project/assignment to be arranged with area adviser.

Individual study. Maximum credit six units applicable to a master's degree.

THEA 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy. Theatre 795 (Practicum in Theatre Arts) is a prerequisite if the student elects the preparation of a project.

Preparation of a project report or thesis for the master's degree.

THEA 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

THEA 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Women's Studies

IN THE COLLEGE OF ARTS AND LETTERS

OFFICE: Arts and Letters 346

TELEPHONE: 619-594-6524

WEBSITE: <http://womensstudies.sdsu.edu/>

Faculty

Doreen J. Mattingly, Ph.D., Professor of Women's Studies,
Chair of Department

Susan E. Cayleff, Ph.D., Professor of Women's Studies
[Senate Distinguished Professor]

Anne Donadey, Ph.D., Professor of French and Women's Studies

Huma Ahmed Ghosh, Ph.D., Professor of Women's Studies

Esther D. Rothblum, Ph.D., Professor of Women's Studies

Anh N. Hua, Ph.D., Associate Professor of Women's Studies

Amira J. Jarmakani, Ph.D., Associate Professor of Women's
Studies

Irene Lara, Ph.D., Associate Professor of Women's Studies

Kimala J. Price, Ph.D., Associate Professor of Women's Studies
(Graduate Adviser)

Associateships and Assistantships

Graduate teaching associateships and graduate assistantships in women's studies are available to a number of qualified students. Application forms and additional information may be obtained from the graduate adviser in the Department of Women's Studies or on-line.

General Information

The Department of Women's Studies offers graduate study leading to the Master of Arts degree in women's studies.

The department, recognized as the nation's first (1970) and among the strongest, has a distinguished faculty in the humanities and social sciences. Discipline-specific expertise as well as feminist theoretical paradigms are available to satisfy students' multi-faceted interests.

The Master of Arts degree is designed to provide advanced training for (1) students who plan to terminate their graduate studies at the master's level, and (2) those who anticipate further study leading to a doctoral degree in women's studies or related fields. The degree will also provide a foundation for further graduate work in professional degree programs such as counseling, social work, law, and public health. It will also prepare students for teaching in a community college and other institutions of higher learning. The Master of Arts will enhance students' ability to participate professionally in a range of organizations and businesses in the public and private sector, particularly those addressing women's issues.

Admission to Graduate Study

The application deadline for fall admission of new students in the Department of Women's Studies is February 15 for the Cal State Apply application and all other materials. All students must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin. As an additional requirement, students must demonstrate sufficient preparation for the program. This preparation can include possession of a bachelor's degree in women's studies from an accredited institution or completion of sufficient units in women's studies and related fields. Evaluation of a student's transcript will be made on an individual basis by the admissions committee to determine whether evidence of sufficient preparation can be demonstrated. A student whose preparation is deemed insufficient by the Graduate Admissions Committee may be admitted as conditionally classified and will be required to complete specified courses in addition to the minimum of 30 units required for the degree.

The grade point average required for admission to the Master of Arts program in women's studies is 3.0 for the last 60 units of the student's undergraduate work, plus satisfactory scores on the verbal, quantitative, and analytic sections of the GRE.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Department of Women's Studies.

Graduate Admissions

All applicants must submit admissions materials as specified below.

1. University application (Cal State Apply at <http://www.calstate.edu/apply>).

All applicants to the program must complete an online application on Cal State Apply and pay the required fee by February 15. A RedID will then be assigned which allows tracking of application status online.

2. Office of Graduate Admissions requirements.

Official test scores and transcripts must be received by March 1.

- Official transcripts from all colleges and universities attended.
- GRE (and if applicable, TOEFL) test scores sent directly from ETS. (SDSU Institution Code 4682)

Send to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

The following admissions materials must be submitted electronically by February 15:

1. Copies of transcripts from all colleges and universities attended (these do not need to be sent directly from the colleges - photocopies are acceptable);
2. Copies of GRE (and if applicable, TOEFL) test scores;
3. Two letters of recommendation – applicant must provide names and e-mail addresses for recommenders. Recommenders will be invited to complete the recommendation electronically;
4. A two-page, single-spaced statement of purpose, concerning the applicant's scholarly background, intentions, and goals. The statement should address the applicant's experience in women's studies and with women's issues, rationale for pursuing the M.A. degree, and relation of the M.A. degree in women's studies to prior academic work and career objectives. Explain how your understanding of feminism intersects with ability, class, race, sexual orientation, and other dimensions of difference;
5. Applicants must state whether they are applying for full-time or part-time status. (A small number of part-time students may be admitted each year. Applicants should read carefully the information provided under part-time program guidelines.)

For information regarding the admissions process, visit the department website at <http://womensstudies.sdsu.edu/>.

Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy, as stated in Part Four of this bulletin.

Specific Requirements for the Master of Arts Degree

(Major Code: 49991) (SIMS Code: 119502)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Part Four of this bulletin, the student, in consultation with the graduate adviser, must fulfill a three-unit language requirement selected from a foreign language, statistics, or American Sign Language. In addition, the student must complete a graduate program of 30 units to include Women's Studies 601, 602; nine units selected from Women's Studies 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 696; Women's Studies 797 and 799A (for Plan A Thesis); and a theme of study composed of nine units of graduate electives, selected with the approval of the graduate adviser.

To complete the Master of Arts degree in women's studies, students pursue a thesis or project (Plan A), or comprehensive examination (Plan B). When Plan B is selected, students will take three additional graduate units in women's studies in lieu of 799A. Other substitutes may be approved where the skills involved are directly related to the student's research interests. Course selection and programs must be approved by the graduate adviser.

Students may choose an international specialization consisting of nine units of graduate courses selected from Women's Studies 512, 530, 560, 570, 580, 581, 605, 607, 609, 611. Other graduate level courses may be included in the international specialization with the approval of the graduate adviser.

Advanced Certificate in Women's Studies

(SIMS Code: 119503)

The Department of Women's Studies offers an advanced certificate to provide an opportunity for students to increase their understanding of women in the humanities and social sciences. The certificate program addresses diverse ways for students to develop knowledge of how women lived, thought, resisted, created knowledge, and engaged in cultural activism.

The advanced certificate requires 12 units, to include Women's Studies 590.

Nine units can be selected within an area of specialization to include six units of 600- or 700-level courses. The electives for the three specializations – International, Health and Sexualities, Gender, Race, and Class are as follows:

International: Women's Studies 512, 530, 565, 580, 581, 601, 603, 607, 609.

Health and Sexualities: Women's Studies 515, 522, 535, 565, 572, 605, 606, 608.

Gender, Race, and Class: Women's Studies 512, 530, 535, 536, 580, 581, 601, 604, 606, 607, 608, 609.

For further information, contact the graduate adviser in the Department of Women's Studies at 619-594-6524 or visit <http://womensstudies.sdsu.edu/>.

Courses Acceptable for Master's Degree Program in Women's Studies (WMNST)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

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. Socio-cultural 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 520. Reproductive Rights and Justice (3)

Prerequisite: Three upper division units in women's studies.

History, cultural attitudes, and politics of reproduction and sexual health to include abortion, contraception, sterilization, sexually transmitted diseases (STDs), HIV/AIDS, sex education, reproductive, and genetic technology.

WMNST 522. Women: Madness and Sanity (3)

Prerequisite: Three upper division units in women's studies.

Mental health and mental illness in literature, film, and psychological research. Clinical and feminist approaches to mental health issues in women's lives.

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.

Intersecting theories of gender, race and class in both local and global contexts. Major themes in history, culture, and contemporary lives of women analyzed through feminist and critical race theories.

WMNST 545. Women and Sports (3)

Prerequisite: Three upper division units in women's studies.

Diverse women's creation of and involvement in recreational and competitive sports, mid-1800s to present to include impact of medical experts' views, homophobia, disability, individual elite athletes, team sports, economic viability, and changes since Title IX.

WMNST 560. Women in Muslim Societies (3)

Prerequisite: Three upper division units in women's studies.

Socio-political status of women in Muslim societies in Middle East, North Africa, and Asia; women in the Quran; Muslim women's movements.

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 570. Gender, War, and Peace (3)

Prerequisite: Three upper division units in women's studies.

Interdisciplinary exploration of women's relation to war, peace, and militarism; women's peace activism and beliefs about motherhood; women's roles in armed conflicts; effects of war on women; military policy and beliefs about masculinity.

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-governmental organizations.

WMNST 581. Women's Experiences of Migration (3)

Prerequisite: Three upper division units in women's studies.

Gender analysis of impact of international migration on women's lives. Identity formation, trauma, language, gender roles, and sexuality in life narratives of immigrant and refugee women. Economic and legal issues affecting immigrant and refugee women.

WMNST 582. Feminist Science and Activism (3)

Prerequisite: Three upper division units in women's studies.

Feminist science studies to examine role of public in creating and challenging scientific knowledge. Case studies of activism and science. May include HIV/AIDS, the environment, sex differences, women's health, and technology.

WMNST 585. Local Feminist Activism and Organizations (3)

Prerequisite: Three upper division units in women's studies.

Links scholarly knowledge about feminist activism and non-profit organizations serving women to specific information about San Diego area. Entering workforce preparation and activism to include economic justice, LGBTQ issues, reproductive rights and justice, sexual violence.

WMNST 590. Feminist Thought (3)

Prerequisites: Six upper division units in women's studies.

Readings of feminist theory in historical perspective, with attention to contemporary debates in feminist scholarship.

WMNST 596. Topics in Women's Studies (1-3)

Prerequisite: Consent of instructor.

Advanced topics in women's 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

WMNST 597. Research Project (3)

Prerequisites: Six upper division units in women's studies and consent of adviser.

Individual research project.

WMNST 598. Women's Studies Internship (3) Cr/NC

Prerequisites: 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. Internship includes 120 hours of work in local public and private agencies serving women and girls. Maximum credit six units.

GRADUATE COURSES

WMNST 601. Foundations of Feminist Scholarship (3)

Prerequisite: Classified graduate standing.

Theories, issues, and major paradigms underlying feminist scholarship. Development of women's studies as a discipline. Emphasis on multicultural approaches and perspectives.

WMNST 602. Seminar: Methods of Inquiry in Women's Studies (3)

Prerequisite: Classified graduate standing.

Examination and critique of traditional research methods; methods of critical feminist investigation; designs of research proposals.

WMNST 603. Seminar: Advanced Feminist Theory (3)

Prerequisite: Classified graduate standing.

Analysis of categories of contemporary feminist theory including concepts of identity and difference; theories of subjectivity; feminist discourses, strategies, and practices.

WMNST 604. Seminar: Gender, Culture, and Representation (3)

Prerequisite: Classified graduate standing.

Representations of women, gender, and femininity in literature, art, music, and other cultural productions. Interconnection between representations of gender, race, ethnicity, class, and sexualities. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

WMNST 605. Seminar: Women and Social Policy (3)

Prerequisite: Classified graduate standing.

Laws and social policies impacting women and their families in historical and political context. Theoretical and practical implications to include workplace issues, economic justice, health, reproductive justice, violence, and regulation of sexuality and relationships.

WMNST 606. Seminar: Narrating Women's Lives (3)

Prerequisite: Classified graduate standing.

Exploration of women's biographies and autobiographies. Theories of narration, identity construction, and oral and written life histories. Interconnection between self-presentation and social, historical, and multicultural institutions and discourses.

WMNST 607. Seminar: Privilege and Oppression (3)

Prerequisite: Classified graduate standing.

How gender, culture, ethnicity, class, religion, sexualities, and physical challenges define interplay of privilege and oppression. Theoretical and practical implications discussed.

WMNST 608. Seminar: Body Politics (3)

Prerequisite: Classified graduate standing.

Historical exploration illuminates contemporary and past constructions of female, male, and transgendered sexualities. Facilitates ability to critique "innate" vs. culturally constructed behaviors and identities. Key institutions that control and define the body explored: labor, race, economics, law, and medicine.

WMNST 609. Seminar: Transnational Issues and Gender (3)

Prerequisite: Classified graduate standing.

Globalization of economy, culture, and politics with a focus on women's lives. Case studies of effect of transnational processes on women and role of gender in shaping these processes.

WMNST 610. Seminar in Sexuality (3)

Prerequisite: Classified graduate standing.

Sexuality and gender identity in diverse individual, social, political, and cultural contexts.

WMNST 611. Seminar: Gender and Diaspora (3)

Prerequisite: Classified graduate standing.

Historical and interdisciplinary perspectives on gendered impact of forcible migration (African, Asian, Jewish). Scholarly debates concerning influence of men's and women's experiences of diaspora on modern political identities, social movements, and cultural production. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.



WMNST 612. Seminar: Feminist Pedagogies (3)

Prerequisite: Classified graduate standing.

Feminist and interrelated critical pedagogies and their application in the classroom. Teaching from social justice, intersectional, and transnational approaches. Role of identity, difference, power, and embodiment in teaching and learning. Practical teaching skills and wholistic classroom strategies.

WMNST 692. Writing Workshop (1)

Prerequisite: Classified graduate standing.

Argument, norms, and styles in academic writing. Maximum credit three units.

WMNST 696. Selected Topics in Women's Studies (3-6)

Prerequisite: Classified graduate standing.

Intensive study in specific areas of women's studies, with emphasis on theoretical and methodological issues. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

WMNST 797. Research (1-3) Cr/NC/RP

Prerequisites: Advancement to candidacy and written approval of department graduate adviser.

Independent research in a specialized subject in women's studies.

WMNST 798. Special Study (1-3) Cr/NC/RP

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Independent study. Maximum credit six units applicable to a master's degree.

WMNST 799A. Thesis (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

WMNST 799B. Thesis Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis is granted final approval.

WMNST 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree. Registration in 799C limited to two semesters.

Upper Division and Graduate Topics Courses

(Also Acceptable for Advanced Degrees)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

The following courses are acceptable for selected advanced degree programs.

Classics (CLASS)

*In the Department of Classics and Humanities
In the College of Arts and Letters*

UPPER DIVISION COURSE

CLASS 599. Special Study (1-3)

Prerequisites: Consent of instructor and department chair. For 599C: Classics 304L or 304G. For 599G: Classics 304G. For 599L: Classics 304L.

Directed individual study. Maximum credit nine units in any combination of 599C, 599G, 599L.

C. Special Study in Classics.

G. Special Study in Greek.

L. Special Study in Latin.

Environmental Science (ENV S)

In the College of Sciences

UPPER DIVISION COURSES

ENV S 538. Environmental Policy and Regulations (3)

(Same course as Biology 538)

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.

ENV S 544. Terrestrial Ecosystems and Climate Change (3)

(Same course as Biology 544)

Prerequisite: Biology 354.

Controls on fluxes and stocks of nutrients within terrestrial ecosystems, ecosystem responses, feedbacks to climate change. Climate systems, water transport, production and decomposition, nutrient cycling, stable isotopes, spatial and temporal integration.

ENV S 596. Advanced Topics in Environmental Science (1-4)

Prerequisite: Consent of instructor.

Advanced special topics in environmental 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 of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

European Studies (EUROP)

In the College of Arts and Letters

UPPER DIVISION COURSES

EUROP 501. European Life and Culture (3)

Prerequisite: Undergraduate: European Studies 301 or completion of the General Education requirement in Foundations of Learning II.C., Humanities required for nonmajors.

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 596. Topics in European Studies (3)

Prerequisite: 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Humanities (HUM)

*In the Department of Classics and Humanities
In the College of Arts and Letters*

UPPER DIVISION COURSES

HUM 504. The Dark Ages (3)

(Same course as History 504)

Europe and the Mediterranean, sixth to eleventh centuries C.E. through various approaches: political, economic, social, and cultural. Topics include: barbarians and Vikings, the Byzantine, Arab, and Holy Roman Empires, the Norman Conquest, Charlemagne, Beowulf, feudalism, and serfdom.

HUM 506. The Renaissance (3)

(Same course as History 506)

Intellectual, artistic, social, and economic transformation in Europe from fourteenth to seventeenth centuries.

HUM 580. Topics in the Humanities (3)

Prerequisites: Three units of humanities and upper division or graduate standing.

Advanced systematic study of a motif or theme in the humanities. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units.

HUM 596. Topics in Humanities (1-3)

Prerequisites: Upper division standing and consent of instructor.

Interdisciplinary topics in literature and the arts. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. No more than six units of 596 may be applied to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

HUM 599. Special Study (1-3)

Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor.

Directed individual study. Maximum credit six units.

International Business (I B)

*In the College of Arts and Letters and
the Fowler College of Business*

UPPER DIVISION COURSE

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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

Italian (ITAL)

*In the Department of European Studies
In the College of Arts and Letters*

UPPER DIVISION COURSE

All upper division courses in Italian are taught in Italian unless otherwise stated.

ITAL 510. Italian and Italophone Cultural Studies (3)

Prerequisites: Italian 301 and 421.

Artistic, intellectual, literary, social and political trends in Italy and in diaspora. May be repeated with new title and content. Maximum credit six units.

Professional Studies and Fine Arts (PSFA)

Offered by the College of Professional Studies and Fine Arts

UPPER DIVISION COURSES

PSFA 501. Study Abroad I (3)

Prerequisite: Professional Studies and Fine Arts 320 or 350.

Study and practical applications of PSFA-related intercultural issues in a selected international setting. Areas of study within PSFA disciplines. Maximum credit six units.

PSFA 502. Study Abroad II (3)

Prerequisite: Professional Studies and Fine Arts 320 or 350.

Study and practical applications of PSFA-related intercultural issues in a selected international setting. Areas of study within PSFA disciplines. Maximum credit six units.

PSFA 550. International Studies Capstone (3)

Prerequisites: Professional Studies and Fine Arts 501 and 502.

Comparative exploration of the ways visited culture/society/nation addresses a problem or issue relative to approaches taken in US.

Science (SCI)

Offered by the College of Sciences

UPPER DIVISION COURSES

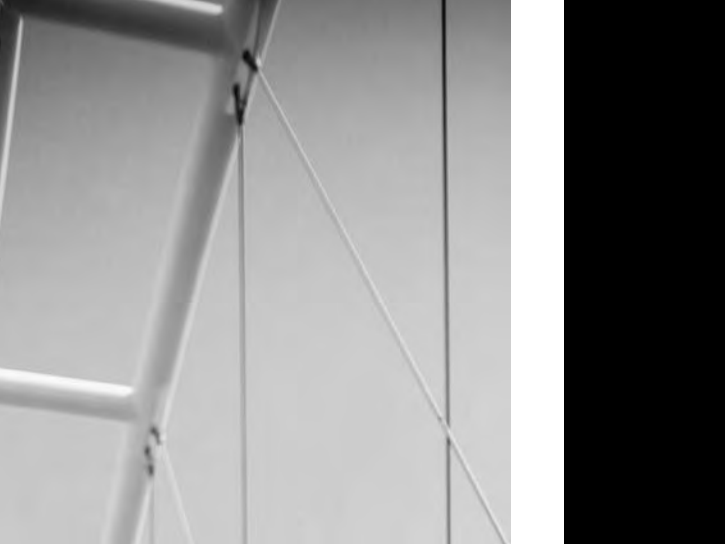
SCI 510. Careers in the Sciences (1) Cr/NC

Prerequisite: Upper division or graduate standing.

Science career opportunities in biotechnology, diagnostic, informatics, and high technology industries.

SCI 596. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class 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. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.



6

PART

Extended Studies

Library and Information Access

Imperial Valley Campus

The California State University

College of Extended Studies

Section I. 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. Under the direction of the dean of the college, programs are developed and carried out within the divisions of Administrative Services, American Language Institute, Extension, and Professional Development and Administration. The programs are operated on a self-support basis since state funds are not provided for Continuing Education activities.

Open University

Most regular on-campus courses are open to students through enrollment in Open University. Open University courses earn non-matriculated resident credit and enrollment for students not seeking an advanced degree or advanced certificate and does not require formal admission to the university. Enrollment in courses through Open University is on a space available basis with the consent of the instructor. 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, fees, and registration procedures.

Open University classes may not be taken by the following:

1. Non-matriculated foreign students (nonresidents from non-English-speaking countries) with a score of less than 550 on the English language test or its equivalent (80 iBT, 6.5 IELTS).
2. SDSU matriculated students.
3. Disqualified students – Graduate students who have been disqualified from SDSU will not be allowed to attend Open University or classes through Special Sessions for one semester following disqualification.

Limitations on Open University, Special Sessions, and Extension Credit

Matriculated 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, provided all course prerequisites have been met. 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 Sessions programs are offered through the College of Extended Studies. A matriculated student who is not in a Special Sessions program may only take courses through Special Sessions 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 Sessions fees and regular session fees given they are enrolled in the regular session.

For more information, visit <http://www.neverstoplearning.net>.

American Language Institute (ALI)

The American Language Institute (ALI) is one of the most prestigious university-based English as a second language (ESL) programs in the US. The ALI is able to offer its students many different programs and courses such as academic, conversational, and business English; TOEFL, IELTS, GRE, and GMAT test preparations; study abroad; and teacher training. Programs offered by the ALI are as follows:

International Business English (IBE)

This program benefits students interested in learning more about American business practices while also improving their English communication skills. The IBE program has flexible start dates and does not require an English language examination for admission. <http://ali.sdsu.edu/ibe>.

English for Academic Purposes (EAP)

EAP is a full semester or summer term program for students planning to enter San Diego State University or other colleges or universities at the undergraduate level. Classes are offered in academic reading, writing, grammar, listening, note-taking, and speaking. Coursework is available in test preparation, pronunciation, and vocabulary. Students may also choose from over 30 elective course offerings. <http://ali.sdsu.edu/eap>.

Intensive English for Communication (IEC)

IEC is a four or more week program designed for students and professionals at all levels who want to develop and improve their practical English skills. Classes include eight hours of oral communication in addition to 12 hours of reading, writing, grammar, and listening per week. Students can choose from a variety of electives, pronunciation clinics, and sports and conversation clubs. <http://ali.sdsu.edu/iec>.

Pre-MBA and Pre-Master's

This program prepares students for graduate degrees, including MS, MA, and MBA. Coursework includes GRE and GMAT test preparation. <http://ali.sdsu.edu/premba>.

Semester at SDSU

Students who meet SDSU's English proficiency requirement may register for 9 to 12 units through ALI's Semester at SDSU program. <http://ali.sdsu.edu/semester>.

Social Entrepreneurship (SE)

Students in this program study business trends and innovative entrepreneurs to learn how to create a business that will positively impact society. This program has flexible start dates. <http://ali.sdsu.edu/se>.

Teaching English as a Second or Foreign Language Certificate (TESL/TEFL)

The ALI offers a TESL/TEFL certificate program for those with little or no previous English language teaching experience who would like to teach English abroad. <http://ali.sdsu.edu/tesl/tefl/certificate>.

Customized Group Programs

The ALI offers customized English as a second language (ESL) programs for specialized adult groups in fields such as business, teacher training, law, health care, sports medicine, and others.

Services

All full-time students at the institute are offered visa and immigration support and assistance, housing assistance, organized volunteer activities, field trips to popular tourist attractions, advising for university entrance, health services, and orientation to university life. Many SDSU campus facilities and activities are also available to ALI students. For the most current and detailed information on how to apply, please see the ALI website at <http://ali.sdsu.edu> or call 619-594-5907.

Osher Lifelong Learning Institute at SDSU

The Osher Lifelong Learning Institute at SDSU offers a vibrant and diverse learning community for adults age 50 and better, with intellectually stimulating, university-quality courses, and engaging leadership and volunteer opportunities. There are no tests or grades, just the thrill of learning with like-minded peers. Course topics include art, culture, current events, history, literature, music, religion, science, and more. Most classes are held on the SDSU campus, with opportunities to attend special events and adventures (educational excursions) at various locations. A limited number of courses are held at St. Paul's Plaza in Chula Vista. For more information, call 619-594-2863, e-mail osher@mail.sdsu.edu or visit <http://neverstoplearning.net/olli>.

Graduate Certificate Programs

A complete listing of graduate certificate programs is in the Summary of Curricula Offered section of this bulletin.

Section II. University Degree Programs

From time to time, the university offers specialized advanced degree programs through the College of Extended Studies designed to serve unique groups of students and the special needs of the community. These programs conform to the standards and requirements established by the Graduate Council for all graduate degree curricula. Students enrolling in these programs are fully matriculated and are expected to fulfill all of the academic requirements as described in this bulletin, including formal admission to the university and to the individual program.

Because of the special nature of these programs, scheduling of courses may not follow the traditional semester schedule. This allows maximum flexibility in the modes, timing, and place of instruction that will best serve the needs of the participating groups. These programs are not supported by the state; correspondingly, the fee structure is different from that listed in this bulletin. Once accepted into the program, students register for classes and pay fees through the College of Extended Studies. Since these fees cover only the cost of instruction, students who desire access to such services of the associated students as health and placement will be required to pay additional fees on campus.

The following programs described in detail in Part Five of this bulletin are currently offered through special arrangements with the College of Extended Studies. Persons interested in further information are invited to contact the program coordinator.

Master of Business Administration for Executives (M.B.A.)

A two year program designed for mid-career business executives who have substantial work and managerial experience. Classes meet on alternate Fridays and Saturdays. Approximate cost: \$54,000.

Master of Business Administration with a Specialization in Sports Business Management (M.B.A.)

A 49 unit full time program in the management of sports organizations and related facilities. A four- to six-month internship in a representative organization is an integral component of the program. Elective coursework will emphasize sport and event marketing, community relations, collective bargaining, and legal issues. Approximate cost: \$46,000.

Master of Arts in Education with Concentration in Learning Design and Technology

This 30 unit program is available online and enables students to prepare for careers as instructional technologists, educational specialists, instructional designers, trainers, and experts in educational computing. State-of-the-art coursework and internships in companies, agencies, and schools prepare candidates to analyze performance problems and design, develop, and evaluate instructional strategies and products. Students graduate with a portfolio including educational computer software, video, multimedia, print and web-based materials. Approximate cost: \$20,000.

Master of Arts in Education with Concentration in Educational Leadership: Specialization in PreK-12

This 15-month program is available online and is designed for school administrators and teachers who aspire to a leadership role in educational technology within their school, district, or county office of education. The program is a collaboration between San Diego State University and the San Diego County Office of Education. Approximate cost: \$15,300.

Master of Public Administration

This competitive 16-month online degree program is offered to experienced professionals who currently work in government and nonprofit agencies. The rigorous format has been designed for working professionals who are currently employed in managerial positions in public administration, non-profit administration, urban planning, criminal justice, or related fields. Past experience in these fields will be considered for applicants who are not currently working in the public or non-profit sector. The 36-unit curriculum is the same as the campus-based program; however, the fast-track, online program is taught in six, two-month modules with two on-campus experiences – one at the beginning and one at the end of the program.

Master of Science in Computational Science with Concentration in Professional Applications

No students admitted to program at this time.

This program focuses on professional applications of computational science. The program leads to careers in management of technology in a wide variety of fields. To enter, students must possess a bachelor's degree with a strong mathematical background. The student must complete a graduate program of 40 units. Approximate cost: \$20,000.

Master of Science in Hospitality and Tourism Management

This 30 unit master's program is designed for experienced professionals and leaders in the hospitality, tourism, and recreation industry who desire a cutting edge program while continuing to work in their current position. Crafted as a 15-month program with 80% of the coursework online and an intensive on-campus week staged at the beginning and at the end of the program, working professionals are challenged by seasoned faculty to become the next generation of leaders in the industry. The curriculum emphasizes the knowledge and concrete skills that 21st century leaders must command in order to be successful in leading hospitality, tourism, and recreation organizations into the 2020s and beyond. Approximate cost: \$29,250.

Master of Science in Regulatory Affairs

This 39 unit interdisciplinary program is designed for regulatory affairs professionals and focuses on the laws and regulations imposed by the Federal government, especially the Food and Drug Administration. Particular concerns are related to drug discovery, development, testing, and manufacture of products for commercial distribution. Approximate cost, excluding course materials: \$23,000.

Master of Science in Rehabilitation Counseling

A three year, 60 semester hour program, designed for currently employed rehabilitation personnel who are counselors and service providers. Courses are offered throughout the calendar year. There is extensive use of mediated technologies. Approximate cost, excluding books: \$18,000.

Library and Information Access

Administration

Dean: Gale S. Etschmaier

Associate Dean: Patrick J. McCarthy

Senior Director of Development: Michelle LaGrandeur

Director of Access Services and Human Resources: Sara Baird

Director of Budget and Fiscal Operations: Sallee Spearman

Director of Information Technologies and Digital Initiatives:

Mark Figueroa

Faculty

Emeritus: Carande, Cargille, Coleman, Dintrone, Fikes, Goynes, Hall, Harkányi, Harris, Leerhoff, McPhail, Palsson, Pease, Perkins, Puerto, Rogers, Sonntag, Sullivan, Turhollow, White, Wilson

Librarians: Baber, Harley, Jackson, Lamont, Muroi, Salem, Savage, Su, Weston

Associate Librarians: Bliss, Jeffery, Kiczek, Lach, Payne, Ray, Rhodes, Tumlin

Senior Assistant Librarians: Culbertson, Holvoet, Jarocki, Lanthorne, Wong-Welch

General Information

Located in the center of campus, Library and Information Access empowers students and faculty to explore ideas, collaborate with colleagues, develop projects, create knowledge, and cultivate academic success. The library is comprised of two buildings, the five-story Love Library and the Library Addition, with its landmark dome. Spanning more than 500,000 square feet, with nearly 4,000 seats for study and research, the library's importance to students, faculty, staff, and individuals living in the San Diego region is documented by more than 2.2 million annual visits.

Hours and Access

The library is open to the public except on holidays, recess dates, and between 10:30 p.m. to 7:00 a.m. When the main library is closed, the 24/7 Study Area is open only to current SDSU students, staff, and faculty. Hours are posted online or call 619-594-6721.

Registering for an SDSUid provides SDSU affiliates with access to online full-text articles from peer-reviewed journals. Students can find the library's catalog, course guides, subject guides for each major, and more at <http://library.sdsu.edu/>.

Library Services

Librarians provide research assistance in person, telephone, e-mail, and online chat. They serve as subject specialists providing in-depth research support for each major on campus. The library has a comprehensive teaching program, which includes course-related instruction, online tutorials, blogs, videos, and tours.

University tutoring programs are hosted by the library in the Math Learning Center and the Writing Center.

The Library Computing Hub operates an extensive computer laboratory with over 300 computers, both Mac and PC. Resources include a help desk and access to a variety of applications. BuildIT, a makerspace with 3-D scanning and printing for students is located within the Hub.

Library Print Services also offers copying, poster printing, and instruction on SDSUcard use. Students can borrow a variety of equipment through the library, such as cameras, laptops, cables, and more.

The Wells Fargo Financial Laboratory, staffed by the Fowler College of Business, is hosted in the library with 12 Bloomberg terminals for real-time financial literacy education for interested students. Fifty group study rooms can be found throughout the library. Reservations are required for rooms with technology, such as large collaborative monitors or presentation practice equipment. There are also food friendly areas, quiet study locations, and a coffee cart.

The library's Digital Humanities Center is home to a range of activities, including exhibits, interactive workshops, scholarly talks and lectures, and showcases.

Holdings

The library's holdings exceed two million print titles with over 776,000 electronic books. With robust access to journals, the library transmits over one million articles annually. We maintain 23 unique collections of digital materials, having scanned over 90,000 items including, maps, photos, audio and video recordings, archival papers, and more. The library is also a depository for United States and California government publications.

Requests for books not available at SDSU can be made online or at an information desk. Partnerships with CSU Libraries via CSU+, local Circuit libraries, the global catalog WorldCat, and interlibrary loans support the delivery of items.

For help finding materials, students can consult staff at service desks located in Research Services, Circulation/Course Reserves, and Special Collections and University Archives.

Special Collections and University Archives

Special Collections and University Archives houses rare, unique, and valuable books, periodicals, manuscripts, and documents which require care in handling. Ephemera, such as art prints, etchings, memorabilia, photographs, and postcards are kept in this area. Significant holdings include an extensive science fiction collection, comics and zines, and historical archives of the university. Noteworthy regional history collections include items from the civil rights era and the Chicano movement.

The Edward E. Marsh Golden Age of Science Fiction is the backdrop for special collections instruction and houses a collection of first editions by numerous Golden Age writers.

Imperial Valley Campus

TELEPHONE: 760-768-5500

WEBSITE: <http://www.ivcampus.sdsu.edu>

Administration

Dean: Gregorio A. Ponce

Associate Dean for Academic Affairs: Donna Castañeda

Assistant Dean for Student Affairs: Miguel Rahiotis

Director of Advancement: Diana Moreno (Interim)

Director of Business and Financial Services: Maribel Madero

Faculty

Emeritus: Ayala, Ballesteros, Coates, Dunn, Fatemi, Garrison, Hill, Livingston, Medeiros, Merino, Murphy, Neumann, Polich, Ponce, Roeder, Ryan, Sabath, Varela-Ibarra

Professors: Castañeda, Neumann, Pearson, Ramirez-Pimienta, Shumaker

Associate Professors: Altamirano, Boime, Cordero, Herrera, Stampfl

Associate Librarian: Payne

Assistant Professors: Abarbanell, Braun, Camargo, Hernando Llorens, Jancsics, Kanaan, Qin

Lecturers: Fuentes, Hoyt, Kofford, Layaye

General Information

The Imperial Valley Campus is a branch campus of San Diego State University serving the people 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 offers the last two years of undergraduate education, graduate programs, and fifth year credential programs for teacher preparation. In addition, the Imperial Valley Campus offers first and second year undergraduate education through the Imperial Valley University Partnership, an innovative collaboration between SDSU-IV, Imperial Valley College, and the Imperial County Office of Education, to students planning to major in criminal justice, history, liberal studies, psychology, public administration, or Spanish (available for students who have received a score of 3 or higher on the Spanish Language Advanced Placement examination). Imperial Valley Campus faculty are multinational in their classroom orientation and background. Smart classroom technology provides students the opportunity to participate in some classes broadcast live from the campus in San Diego. The Imperial Valley Campus schedules many of its classes 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. Some classes are also offered on the weekends.

Student clubs, student government, lectures, art exhibits, and musical events enhance education for the approximately 1,000 students at SDSU – Imperial Valley Campus.

Location

Imperial County has a population of approximately 180,000 people. SDSU-IV is located on two sites, Calexico and Brawley. Calexico is 110 miles east of San Diego, 55 miles west of Yuma, Arizona, and 120 miles south of Palm Springs. Interstate 8 and State Highways 111 and 86 connect the County to the rest of the country and state. The 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 and a rapidly emerging renewable energy industry.

Curricula Offered

Master's Degrees

Education (M.A.; Concentration in Educational Leadership, currently not admitting new students), Social Work (M.S.W.; in cooperation with the San Diego campus).

Teaching Credentials

Basic

Multiple Subject, Multiple Subject with Bilingual Authorization: Spanish, Single Subject, Single Subject with Bilingual Authorization: Spanish.

Specialist

Administrative Services, Special Education (in conjunction with the College of Education) Mild/Moderate Disabilities.

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.

SDSU offers over 350 education abroad programs in more than 70 countries. In addition to SDSU's own study abroad programs, students may participate in the California State University International Programs; the International Student Exchange Program (ISEP) Consortia; and other independent programs.

Research Center, Institute, and Partnership

Center for Individual and Professional

Skills Development

Suzanna Fuentes, Director

The Center for Individual and Professional Skills Development at San Diego State University-Imperial Valley Campus offers community programs to the Imperial and Mexicali valleys. The center offers English as a second language (ESL) courses in the local community and a teacher training program in Mexico. Additionally, the Center for Individual and Professional Skills Development presents annual conferences including the Bi-national Conference on Education and the Bi-national Youth Leadership Conference.

San Diego State University, Imperial Valley

Borderlands Institute

Carlos R. Herrera, Director

The SDSU-IV Borderlands Institute, founded in August 2013, promotes border-related scholarship and activities relevant to the Imperial, Mexicali, and Yuma valleys. The institute coordinates cultural exchange programs with Mexican institutions, fosters the university's role as an active participant in the trans-border community, hosts visiting scholars, and sponsors academic conferences and public lectures.

USDA-HSI and SDSU-Imperial Valley Campus

Partnership

Roberto González, Jr., Regional Director for Southern California and Arizona

The USDA-HSI national program promotes partnerships and collaborations between U.S. Department of Agriculture (USDA) agencies and Hispanic Serving Institutions (HSIs). The partnership cultivates knowledge and develops leaders by linking USDA and higher education. For more information, stop by the Library Annex, Room 12B at SDSU Imperial Valley Campus.

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 library, Joseph Rodney Auditorium, and John Steppling Art Gallery provide academic and cultural resources for the entire community. Other buildings include classroom buildings, the administration building, faculty offices, computer labs, a bookstore, and the Student Union. The Brawley campus is a showcase of the latest instructional technologies, including a computer classroom, a video conference classroom, full computer and Internet presentation capabilities in all classrooms, as well as a computer laboratory for students to research and study individually or in groups. The Brawley campus is also the site of the Center for Energy Sustainability and its numerous renewable energy projects.

The library, located at the Calexico site, is designed to facilitate research and to provide a pleasant atmosphere for study. The collection's volumes, periodicals, and newspapers 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 laboratory. Both Macintosh and IBM compatible systems and Internet access are also available on campus.

Transfer Center

The Transfer Center 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 transfer center works with all students, and has among its goals to increase the number of underrepresented students in higher education. Underrepresented students are minorities, disabled, low income, and others not proportionately represented among the transfer population. For more information, call 760-768-5506, visit the office located in Student Affairs, or go to <http://www.ivcampus.sdsu.edu/transfer>.

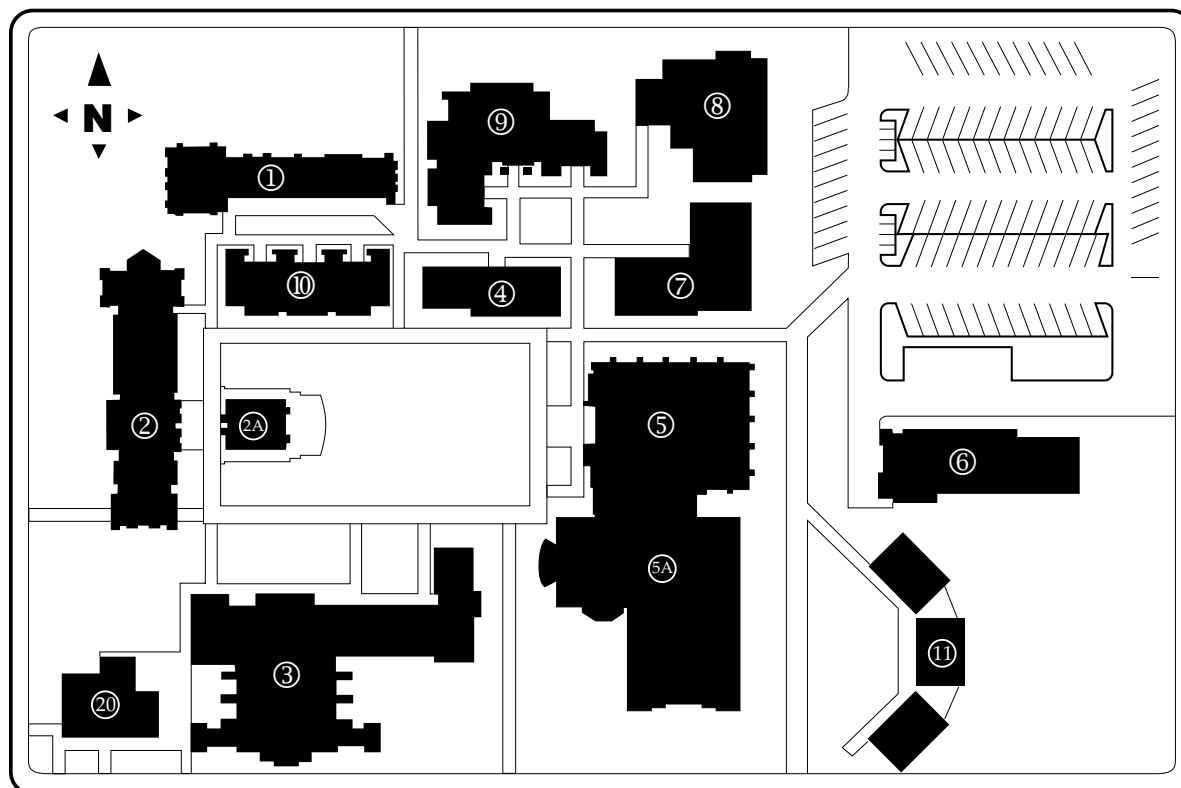
Admission and Registration

To apply for admission to the Imperial Valley Campus, students complete the Cal State Apply application online at <http://www.calstate.edu/apply> and have transcripts sent to the Office of Admissions, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-7455. Call 760-768-5667 for additional information.

After students have been admitted, they can register on the Internet using WebPortal, but only after fees are paid. Late registration is allowed during the first three weeks of the semester. Students wishing to late register must pay registration fees plus a nonrefundable \$25.00 late fee.

Imperial Valley Campus – Calexico Campus Map

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

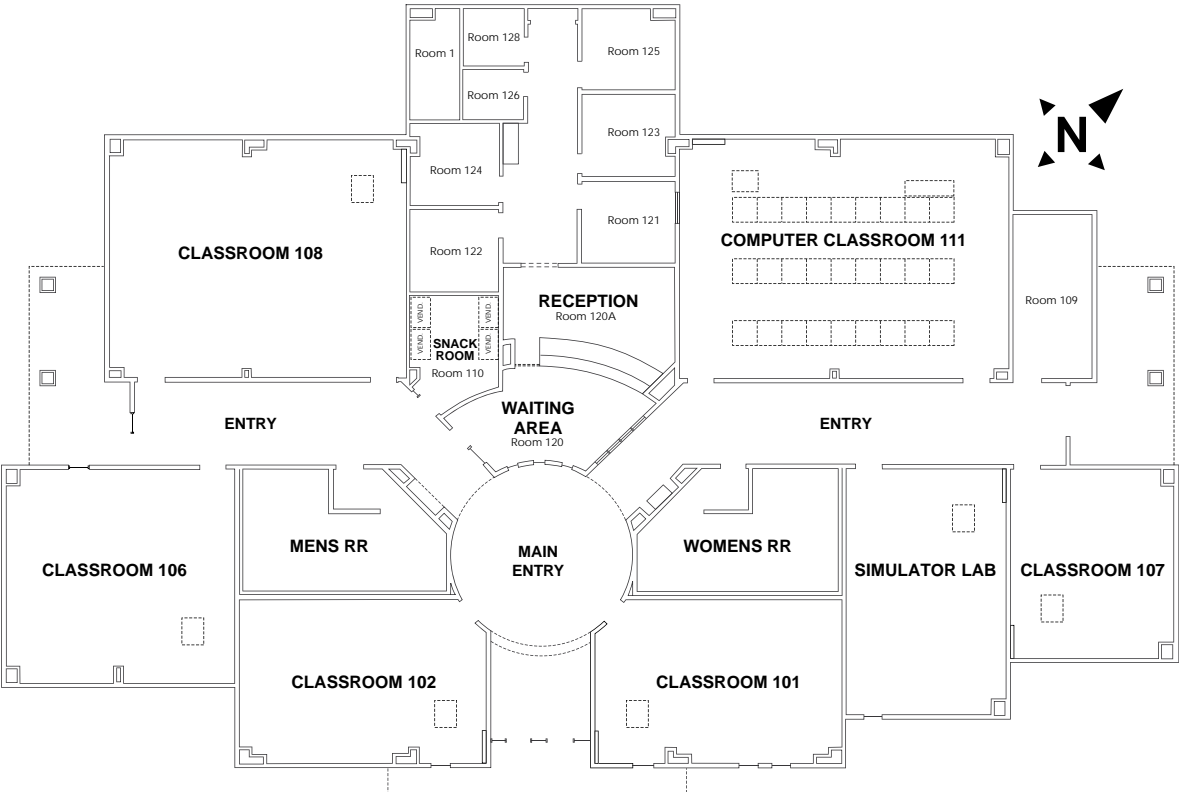


SDSU-IVC Building Legend

- | | |
|-------------------------------------|--|
| 1. North Classroom | 9. Faculty Offices East |
| 2. Administration (Student Affairs) | 10. Faculty Offices West (Enrollment Services) |
| 2A. Art Gallery | 11. CLAT - Classrooms |
| 3. Auditorium (classrooms) | 20. Student Center |
| 4. Classrooms | |
| 5. Library (computer laboratories) | |
| 5A. Library Annex | |
| 6. Physical Plant | |
| 7. Computer Building/Campus Store | |
| 8. Student Affairs | |

Imperial Valley Campus – Brawley Campus Map

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



The California State University

Welcome to the California State University (CSU) – the nation's largest comprehensive higher education system with 23 unique campuses serving approximately 484,000 students with more than 50,800 faculty and staff. Each year, the university awards more than 120,000 degrees. CSU graduates are serving as leaders in the industries that drive California's economy, including business, agriculture, entertainment, engineering, teaching, hospitality, and healthcare. Learn more at <https://www.calstate.edu>.

A Tradition of Excellence For More Than Five Decades

Since 1961, the CSU has provided an affordable, accessible, and high-quality education to more than 3.4 million graduates throughout California. While each campus is unique based on its curricular specialties, location and campus culture, every CSU is distinguished for the quality of its educational programs. All campuses are fully accredited, provide a high-quality broad liberal educational program and offer opportunities for students to engage in campus life through the Associated Students, Inc., clubs and service learning. Through leading-edge programs, superior teaching and extensive workforce training opportunities, CSU students graduate with the critical thinking skills, industry knowledge and hands-on experience necessary for employment and career advancement.

Facts

- In 2015-16, the CSU received \$579 million in research and education grants and contracts by federal, state, and regional agencies.
- Today, one of every 20 Americans with a college degree is a CSU graduate.
- One in every 10 employees in California is a CSU alumnus.
- The CSU awards 45 percent of the bachelor's degrees earned in California.
- More than half of all the nurses in the state earn their degrees from the CSU.
- The CSU awards 95 percent of the hospitality/tourism degrees in the state.
- Nearly half of all of the state's engineers earn their degrees from the CSU.
- The CSU is the leading provider of teacher preparation programs in the state.
- The CSU offers more than 124 fully online and 91 hybrid degree programs and concentrations.
- The CSU offers 3,800 online courses per term providing more educational options to students who may prefer an online format to a traditional classroom setting.
- The CSU's online concurrent enrollment program gives students the ability to enroll in courses offered by other campuses in the CSU.
- Over the past four years, the CSU has issued nearly 50,000 professional development certificates in education, health services, business and technology, leisure and hospitality, manufacturing, international trade, and many other industries.
- Nearly half of the CSU's 484,000 students are engaged in some type of community service, totaling 32 million hours of service annually.
- More than 13,000 students participate in STEM (science, technology, engineering and mathematics) service-learning courses.
- For every \$1 that the state invests in the CSU, the university generates \$5.43 for California's economy.

Governance

The CSU is governed by the Board of Trustees, most of whom are appointed by the governor and serve with faculty and student representatives. The CSU Chancellor is the chief executive officer, reporting to the board. The campus presidents serve as the campus-level chief executive officers. The trustees, chancellor, and presidents develop systemwide educational policy. The presidents, in consultation with the Academic Senate CSU and other campus stakeholder groups, render and implement local policy decisions.

CSU Historical Milestones

The individual California State Colleges were established as a system with a Board of Trustees and a Chancellor in 1960 by the Donahoe Higher Education Act. In 1972, the system was designated as the California State University and Colleges, and in 1982 the system became the California State University. Today, the CSU is comprised of 23 campuses, including 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.

In 1963, the Academic Senate CSU was established to act as the official voice of CSU faculty in systemwide matters. Also, the California State College Student Presidents Association—which was later renamed the California State Student Association—was founded to represent each campus student association on issues affecting students.

Through its many decades of service, the CSU has continued to adapt to address societal changes, student needs and workforce trends. While the CSU's core mission has always focused on providing high-quality, affordable bachelor's and master's degree programs, over time the university has added a wide range of services and programs to support student success – from adding health centers and special programs for veterans to building student residential facilities to provide a comprehensive educational experience.

To improve degree completion and accommodate students working full- or part-time, the educational paradigm was expanded to give students the ability to complete upper-division and graduate requirements through part-time, late afternoon and evening study. The university also expanded its programs to include a variety of teaching and school service credential programs, specially designed for working professionals.

The CSU marked another significant educational milestone when it broadened its degree offerings to include doctoral degrees. The CSU independently offers Doctor of Education (Ed.D.), Doctor of Physical Therapy (DPT), Doctor of Audiology (Au.D.), and Doctor of Nursing Practice (DNP) degree programs. A limited number of other doctoral degrees are offered jointly with the University of California and private institutions in California.

In 2010, an effort to accommodate community college transfer students, the CSU, in concert with the California Community Colleges (CCC), launched the Associate Degree for Transfer (ADT), which guarantees admission to the CSU with junior status.

Always adapting to changes in technology and societal trends to support student learning and degree completion, the CSU achieved another milestone in 2013, when it launched Cal State Online, a systemwide collection of services that support the delivery of fully online programs from campuses. Now, full-time students have access to fully online courses offered at other CSU campuses.

By providing an accessible, hands-on education that prepares graduates for career success, the CSU has created a network of alumni that is so extensive and renowned that it spans across the globe. As of 2016-17, more than 3.4 million CSU alumni are making a difference in the lives of the people of California and the world.

The CSU strives to continually develop innovative programs, services and opportunities that will give students the tools they need to meet their full potential. In 2016, the university launched Graduation Initiative 2025, a bold plan to support students, increase the number of California's graduates earning high-quality degrees and eliminate achievement and equity gaps for all students. Through this initiative, the CSU is ensuring that all students have the opportunity to graduate according to their personal goals, positively impacting their lives, families and communities. The CSU is committed to providing a quality higher education that prepares students to become leaders in the changing workforce.

Average Support Cost and Source of Funds Per Full-time Equivalent Student

The total support cost per full-time equivalent student (FTES) 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 FTES. The total CSU 2017-18 budget amounts were \$3,390,564,000 from state General Fund (GF) appropriations and before adding \$39.3 million CalPERS retirement adjustment, \$2,477,015,000 from gross tuition revenue and \$594,397,000 from other fee revenues for a total of \$6,461,976,000. The 2017-18 resident FTES target is 364,131 and the nonresident FTES based on past-year actual is 24,398 for a total of 388,529 FTES. The GF appropriation is applicable to resident students only whereas fee revenues are collected from resident and nonresident students. FTES is determined by dividing the total academic student load (e.g. 15 units per semester) (the figure used here to define a full-time student's academic load).

The 2017-18 average support cost per FTES based on GF appropriation and tuition revenue only is \$15,687 and when including all three sources as indicated below is \$17,217, which includes all fee revenue (e.g. tuition, application fees, and other campus mandatory fees) in the CSU Operating Fund. Of this amount, the average tuition and other fee revenue per FTES is \$7,905.

The average CSU 2017-18 academic year, resident, undergraduate student basic tuition and other mandatory fees required to apply to, enroll in, or attend the university is \$7,216 (\$5,742 tuition fee plus \$1,474 average campus-based fees). 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.

2017-2018	Amount	Average cost per FTES	Percentage
State Appropriation (GF) ¹	\$3,390,564,000	\$9,311	54.1%
Gross Tuition Revenue ²	\$2,477,015,000	\$6,375	37.2%
Other Fees Revenue ²	\$594,397,000	\$1,530	8.9%
Total Support Cost	\$6,461,976,000	\$17,217	100%

¹Represents state GF appropriation in the Budget Act of 2017-18; GF is divisible by resident students only (364,131 FTES).

²Represents CSU Operating Fund, gross tuition and other fees revenue amounts submitted in campus August 2017-18 final budgets. Revenues are divisible by resident and nonresident students (388,529 FTES).

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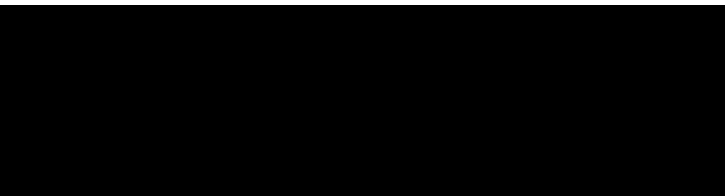
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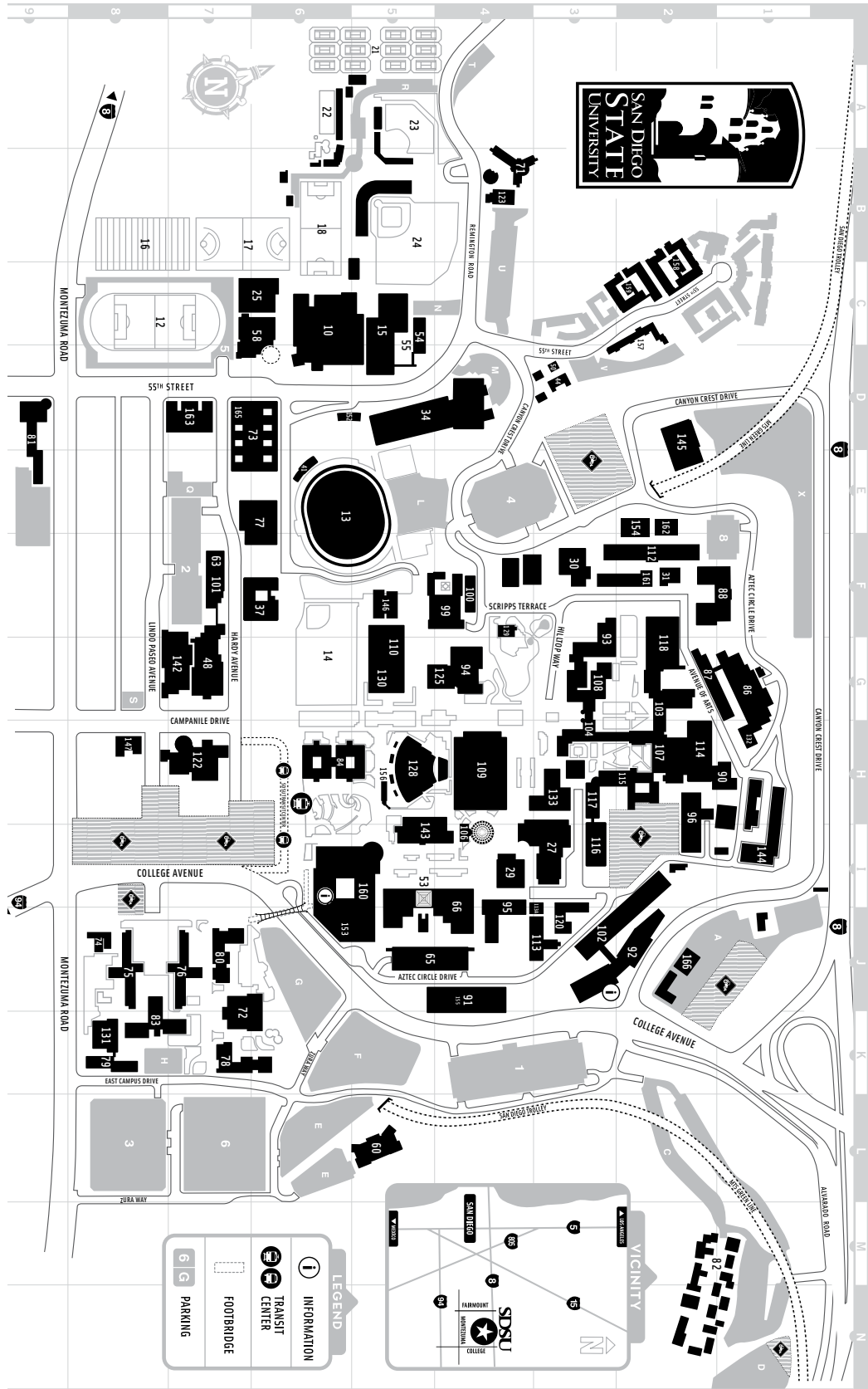
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Credits

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General Catalog, Graduate Bulletin, and Class Schedule

The *General Catalog* is published annually in February and contains information for undergraduate students on admissions, fees and tuition, financial aid and scholarships, programs and degrees, courses, residence halls, student services and activities, and a faculty directory.

The *General Catalog* can be purchased at the SDSU Bookstore. Mail order information is available at <http://www.aztecshops.com>. The *General Catalog* is also available on the SDSU website at <http://arweb.sdsu.edu/es/catalog/>.

The *Graduate Bulletin* contains information for graduate students on admissions, fees and tuition, financial aid, programs and degrees, courses, and student services. The *Graduate Bulletin* is available on the SDSU website at <http://arweb.sdsu.edu/es/catalog/bulletin/>.

The *Class Schedule* is published online each semester at <http://www.sdsu.edu/schedule>. The *Class Schedule* contains the list of classes offered each term, instructions for registration, and links to student resources.

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 is mailed to interested students upon request by calling 619-594-5152.

