1978-1979
CALIFORNIA STATE COLLEGE STANISLAUS
THE CALIFORNIA STATE UNIVERSITY AND COLLEGES
By mail from:

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THE 4–1–4 AT CAL STATE STANISLAUS

In the Fall of 1978, California State College, Stanislaus will begin the sixth year under a "4–1–4" academic calendar. Response to the program in its first years has been enthusiastic, especially to the wide variety of innovative courses offered. Plans for the coming year promise an even more attractive program for 1978–79.

Under 4–1–4, the academic year consists of two 13-week semesters and a month-long Winter Term beginning in January. Fall Semester ends before Christmas break and Spring Semester finishes in late May. A typical student load is four courses in the Fall, one during Winter Term, and four in the Spring—hence "four-one-four."

Although in the course of an academic year, the 4–1–4 calendar is exactly equivalent to traditional semester or quarter programs in terms of instructional weeks (30), credit units earned, teaching loads, and registration fees, the unique structure of the 4–1–4 year provides greater opportunities for an innovative and challenging curriculum.

The most exciting dimension of 4–1–4 is the month-long Winter Term in which both students and faculty concentrate on one course or project. Winter Term is tangible evidence of the College's commitment to intellectual inquiry and creative pedagogy. To further stimulate academic innovation and to encourage students to explore unfamiliar disciplines, most Winter Term courses and projects are graded on a Credit/No Credit basis. Winter Term courses are required for graduation as an integral part of the 4–1–4 calendar.

During the Winter Term both teacher and learner have an unusual chance for intensive, uninterrupted pursuit of a single subject. This concentration of time, resources, and energy in itself constitutes a new intellectual experience for most undergraduates. Furthermore, Winter Term policy at Cal State Stanislaus facilitates interdisciplinary teaching and learning, invites off-campus field work and research, allows students to propose courses or projects, and permits foreign study via off-campus courses. (See Winter Term Bulletin.)

Cal State Stanislaus is the first public, four-year institution of higher learning in California to adopt a 4–1–4 calendar.
SUMMER SESSIONS 1978

First Session--June 19 - July 28

April 1-June 19, Saturday
  through Monday . . . . . . Regular registration period
June 19, Monday . . . . . . Instruction begins
June 20-26, Tuesday
  through Monday . . . . . . Late registration period ($5 late fee)
June 26, Monday . . . . . . Last day for late registration
June 26, Monday . . . . . . Last day to add a course
June 26, Monday . . . . . . Last day to drop a course
June 30, Friday . . . . . . Last day to file for partial refund of fees
    July 3-4, Monday and
      Tuesday . . . . . . Legal Holiday (Independence Day)
July 28, Friday . . . . . . First session ends

Second Session--July 31 - August 18

April 1-July 31, Saturday
  through Monday . . . . . . Regular registration period
July 31, Monday . . . . . . Instruction begins
August 1-2, Tuesday
  through Wednesday . . . . Late registration period ($5 late fee)
August 2, Wednesday . . . . Last day for late registration
August 2, Wednesday . . . . Last day to drop a course
August 4, Friday . . . . . . Last day to file for partial refund of fees
August 18, Friday . . . . . . Second session ends

FALL SEMESTER 1978

September 11 - December 15, 1978

November 1-30, 1977, Tuesday
  through Wednesday . . . . Initial period for accepting admission applications for Fall Semester 1978
December 1, 1977, Thursday. Extended filing period begins for Fall Semester 1978 admission applications
April 1, Saturday . . . . . . Last day to file applications for financial aid in Fall Semester 1978
April 24, Monday . . . . . . Beginning of regular advisement & registration period for Fall Semester 1978
May 19, Friday . . . . . . End of regular advisement & registration period for Fall Semester 1978
May 22, Monday . . . . Beginning of extended registration period for Fall Semester 1978
August 25, Friday . . . . End of extended registration period for Fall Semester 1978
August 28, Monday . . . . Beginning of late advisement & registration period for Fall Semester 1978

During summer vacation, faculty may be unavailable for academic advising. Before coming to campus for advising, students should contact the department secretary to arrange for an advising appointment. If your faculty adviser is unavailable, a substitute adviser will be able to assist you.

September 4, Monday . . . . Legal Holiday (Labor Day)
September 6, Wednesday . . . First day to add or drop a course
September 8, Friday . . . . . Student Orientation Program
September 11, Monday . . . . Late registration fee begins ($5)
September 11, Monday . . . . Instruction begins
September 18, Monday . . . . Last day to complete admission application procedures
September 22, Friday . . . . . Last day to apply for Fall 1978 graduation
September 25, Monday . . . . Last day of late advisement and registration for Fall Semester 1978
September 25, Monday . . . . Last day to add a course
September 25, Monday . . . . Last day to file for partial refund of fees after withdrawing from College
October 6, Friday . . . . . Last day to drop a course
October 6, Friday . . . . . Last day to withdraw from College
October 6, Friday . . . . . Applications due for Spring 1979 and Summer 1979 graduation
November 1-30, Wednesday through Thursday . . . . Initial period for accepting admission applications for Fall Semester 1979
November 9, Thursday . . . . Beginning of regular advisement and registration period for Winter Term 1979 and Spring Semester 1979
November 10, Friday . . . . . Holiday (Veterans Day)
November 13, Monday . . . . Classes scheduled to meet on Friday, November 10, meet on this day
November 21, Tuesday . . . . Last day to submit approved master's degree thesis for Fall Semester 1978 graduation
November 23-26, Thursday through Sunday . . . . Thanksgiving Holiday (College closed)
December 1, Friday . . . . . Extended filing period begins for Fall Semester 1979
December 8, Friday . . . . . Last day of classes for Fall Semester 1978
December 8, Friday . . . . End of regular advisement & registration period for Winter Term 1979 and Spring Semester 1979

December 11, Monday . . . . Reading Day*
December 12-15, Tuesday through Friday . . . . Final examinations, projects and evaluations
December 15, Friday . . . . Fall Semester 1978 ends
December 23-25, Saturday through Monday . . . . Christmas Holiday (College closed)

WINTER TERM 1979

January 2 - January 31, 1979

June 1-30, 1978, Thursday through Friday . . . . Initial period for accepting admission applications for Winter Term 1979
July 1, 1978, Saturday . . Extended filing period begins for Winter Term 1979 admissions applications
November 9, 1978, Thursday . Beginning of regular advisement and registration period for Winter Term 1979
December 8, 1978, Friday . End of regular advisement and registration period for Winter Term 1979
December 27, 1978, Wednesday . . . . Last day to complete admission application procedures
January 1, Monday . . . . Legal Holiday (New Year's Day)
January 2, Tuesday . . . . Beginning of late advisement period
January 2, Tuesday . . . . Late registration fee begins ($5)
January 2, Tuesday . . . . Instruction begins
January 4, Thursday . . . . Last day of late advisement & registration for Winter Term 1979
January 4, Thursday . . . . Last day to add a course
January 4, Thursday . . . . Last day to drop a course
January 8, Monday . . . . Last day to apply for Winter Term 1979 graduation
January 8, Monday . . . . Applications due for Fall Semester 1979 graduation
January 10, Wednesday . . . Last day to submit approved master's degree thesis for Winter Term 1979 graduation

*Late afternoon and evening classes will normally convene.
January 16, Tuesday . . . . Last day to file for partial refund of fees after withdrawing from College
January 31, Wednesday . . . . Last day of classes for Winter Term 1979
January 31, Wednesday . . . . Winter Term 1979 ends

SPRING SEMESTER 1979
February 12 - May 26, 1979

August 1-31, 1978, Tuesday through Thursday . . . . Initial period of accepting admission applications for Spring Semester 1979
September 1, 1978, Friday . . . Extended filing period begins for Spring Semester 1979 admission applications
November 9, 1978, Thursday . Beginning of regular advisement and registration period for Spring Semester 1979
November 10, 1978, Friday . . . Last day to file applications for financial aid in Spring Semester 1979
December 8, 1978, Friday . . . End of regular advisement & registration period for Spring Semester 1979
January 31, Wednesday . . . . End of extended registration period for Spring Semester 1979
February 1, Thursday . . . . Beginning of late advisement & registration period for Spring Semester 1979
February 12, Monday . . . . Late registration fee begins ($5)
February 12, Monday . . . . Instruction begins
February 12, Monday . . . . First day to add or drop a course
February 19, Monday . . . . Legal Holiday (Washington's Birthday)
February 20, Tuesday . . . . Last day to complete admission application procedures
February 21, Wednesday . . . Last day to apply for Spring Semester 1979 & Summer 1979 graduation
February 26, Monday . . . . Last day to file for partial refund of fees after withdrawing from the College
February 27, Tuesday . . . . Last day of late advisement & registration for Spring Semester 1979
February 27, Tuesday . . . . Last day to add a course
March 12, Monday . . . . . . . Last day to drop a course
March 12, Monday . . . . . . . Last day to withdraw from College
March 12, Monday . . . . . . . Applications due for Winter Term 1980 graduation
April 9-13, Monday through Friday . . . . Spring Vacation
April 23, Monday . . . . . . . Beginning of regular advisement & registration period for Fall Semester 1979
April 26, Thursday . . . . . . . Last day to submit approved master's degree thesis for Spring Semester 1979 graduation
May 11, Friday ........ Warrior Day (No classes held)
May 18, Friday ........ Last day of classes for Spring Semester 1979
May 18, Friday ........ End of regular advisement and registration period for Fall Semester 1979
May 21, Monday ........ Beginning of extended registration period for Fall Semester 1979
May 21, Monday ........ Reading Day*
May 22-25, Tuesday through Friday ........ Final examinations, projects and evaluations
May 26, Saturday ........ Commencement
May 26, Saturday ........ Spring Semester 1979 ends
May 28, Monday ........ Legal Holiday (Memorial Day)

SUMMER SESSIONS 1979

First Session--June 18-July 27

April 1-June 18 ........ Regular registration period
June 18, Monday ........ Instruction begins
June 19-25 ........ Late registration period ($5 late fee)
July 4, Wednesday ........ Legal Holiday (Independence Day)
July 27, Friday ........ First session ends

Second Session--July 30-August 17

April 1-July 30 ........ Regular registration period
July 30, Monday ........ Instruction begins
July 31-August 1 ........ Late registration period ($5 late fee)
August 17, Friday ........ Second session ends

*Late afternoon and evening classes will normally convene.
THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

HUMBOLDT State University
California State University, CHICO
SONOMA State College
California State University, SACRAMENTO
SAN FRANCISCO State University
California State University, HAYWARD
SAN JOSE State University
California State College, STANISLAUS
California State University, FRESNO
California Polytechnic State University, SAN LUIS OBISPO

California State-College, BAKERSFIELD
California State Polytechnic University, POMONA
California State University, NORTHridge
California State University, LOS ANGELES
California State University, DOMINGUEZ HILLS
California State University, LONG BEACH
Office of the Chancellor, Long Beach
California State University, FULLERTON
California State College, SAN BERNARDINO
S\N DIEGO State University
Imperial Valley Campus, Calexico
THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges.

The oldest campus - San Jose State University - was founded in 1857 and became the first institution of public higher education in California. The newest campus - California State College, Bakersfield - began instruction in 1970.

Responsibility for The California State University and Colleges is vested in the Board of Trustees, whose members are appointed by the Governor. The Trustees appoint the Chancellor, who is the chief executive officer of the system, and the Presidents, who are the chief executive officers on the respective campuses.

The Trustees, the Chancellor and the Presidents develop system-wide policy, with actual implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University and Colleges, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the Chancellor.

Academic excellence has been achieved by The California State University and Colleges through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All of the campuses require for graduation a basic program of "General Education-Breadth Requirements" regardless of the type of bachelor's degree or major field selected by the student. A limited number of doctoral degrees are offered jointly with the University of California.

Presently, under the system's "New Approaches to Higher Education," the campuses are implementing a wide variety of innovative programs to meet the changing needs of students and society. Among pilot programs under way are instructional television projects, self-paced learning plans, minicourses, and credit-by-examination alternatives. The Consortium of the California State University and Colleges fosters and sponsors local, regional, and statewide external degree and certificate programs to meet the needs of individuals who find it difficult or impossible to attend classes on a campus.

Enrollments in fall 1977 totaled approximately 300,000 students, who were taught by a faculty of 17,000. Last year the system awarded over 54 percent of the bachelor's degrees and 34 percent of the master's degrees granted in California. Over 625,000 have been graduated from the 19 campuses since 1960.
TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

EX OFFICIO TRUSTEES

The Honorable Edmund G. Brown, Jr.  
Governor of California  
State Capitol  
Sacramento 95814

The Honorable Mervyn Dymally  
Lieutenant Governor of California  
State Capitol  
Sacramento 95814

The Honorable Leo McCarthy  
Speaker of the Assembly  
State Capitol  
Sacramento 95814

The Honorable Wilson C. Riles  
State Superintendent of Public Instruction  
721 Capitol Mall  
Sacramento 95814

Dr. Glenn S. Dumke  
Chancellor of The California State University and Colleges  
400 Golden Shore  
Long Beach 90802

APPOINTED TRUSTEES

Appointments are for a term of eight years, except for a student Trustee and alumni Trustee whose terms are for two years. Names are listed in order of appointment to the Board.

Mr. Charles Luckman (1982)  
9200 Sunset Blvd.  
Los Angeles 90069

Mr. William O. Weissich (1977)  
55 Professional Center Pkwy.  
San Rafael 94903

Mr. Robert A. Hornby (1978)  
810 South Flower St.  
Los Angeles 90017

Mr. Wendell W. Witter (1979)  
45 Montgomery St.  
San Francisco 94106

Mr. Gene M. Benedetti (1978)  
8990 Poplar Ave.  
Cotati 94952

Mr. Roy T. Brophy (1980)  
3160 Royale Road, Suite 20  
Sacramento 95815

Mrs. C. Stewart Ritchie (1980)  
1064 Creek Drive  
Menlo Park 94025

Mr. Frank P. Adams (1981)  
235 Montgomery St., Suite 1922  
San Francisco 94104

Mr. Richard A. Garcia (1979)  
31293 E. Nine Dr.  
Laguna Niguel 92677

Mr. Dean S. Lesher (1981)  
P.O. Box 5166  
Walnut Creek 94598

Dr. Claudia H. Hampton (1982)  
450 N. Grand, Room G353  
Los Angeles 90012

Dr. Mary Jean Pew (1983)  
2021 N. Western Avenue  
Los Angeles 90027
Mr. Willie J. Stennis (1983) 3947 Landmark Culver City 90230
Mr. John F. O'Connell (1980) P.O. Box 3965 San Francisco 94119
Ms. Kathleen A. Carlson (1978) UCLA - 405 Hilgard Ave. Los Angeles 90024
Dr. Juan Gomez-Quinones (1984) Chicano Studies Center, University of California, Los Angeles 405 Hilgard Avenue Los Angeles 90024
Mr. Michael R. Peevey (1985)* 215 Market St., Suite 930 San Francisco 94105

OFFICERS OF THE TRUSTEES

Governor Edmund G. Brown, Jr. President
Mr. Frank P. Adams Vice Chairman

Mr. Roy T. Brophy Chairman
Chancellor Glenn S. Dumke Secretary-Treasurer

OFFICE OF THE CHANCELLOR

The California State University and Colleges
400 Golden Shore
Long Beach, California 90802
(213) 590-5506

Dr. Glenn S. Dumke Chancellor
Mr. Harry Harmon Executive Vice Chancellor
Mr. D. Dale Hanner Vice Chancellor, Business Affairs
Dr. Alex C. Sherriffs Vice Chancellor, Academic Affairs
Dr. Marjorie Downing Wagner Vice Chancellor, Faculty and Staff Affairs
Mr. Mayer Chapman General Counsel

*Appointment subject to State Senate confirmation.
California State College, Bakersfield
9001 Stockdale Highway
Bakersfield, California 93309
Dr. Jacob P. Frankel, President
(805) 833-2011

California State University, Chico
1st & Normal Streets
Chico, California 95929
Dr. Stanford Cazier, President
(916) 895-5011

California State University, Dominguez Hills
Carson, California 90747
Dr. Donald R. Gerth, President
(213) 515-3300

California State University, Fresno
Shaw and Cedar Avenues
Fresno, California 93740
Dr. Norman A. Baxter, President
(209) 487-9011

California State University, Fullerton
Fullerton, California 92634
Dr. L. Donald Shields, President
(714) 870-2011

California State University, Hayward
Hayward, California 94542
Dr. Ellis E. McCune, President
(415) 881-3000

Humboldt State University
Arcata, California 95521
Dr. Alistair W. McCrone, President
(707) 826-3011

California State University, Long Beach
1250 Bellflower Boulevard
Long Beach, California 90840
Dr. Stephen Horn, President
(213) 498-4111

California State University, Los Angeles
5151 State University Drive
Los Angeles, California 90032
Dr. John A. Greenlee, President
(213) 224-0111
California State University, Northridge
18111 Nordhoff Street
Northridge, California 91330
Dr. James W. Cleary, President
(213) 885-1200

California State Polytechnic University, Pomona
3801 West Temple Avenue
Pomona, California 91768
Dr. Hugh O. LaBounty, Jr., Acting President
(714) 598-4592

California State University, Sacramento
6000 J Street
Sacramento, California 95819
(916) 454-6011

California State College, San Bernardino
5500 State College Parkway
San Bernardino, California 92407
Dr. John M. Pfau, President
(714) 887-7301

San Diego State University
5300 Campanile Drive
San Diego, California 92182
Dr. Trevor Colbourn, Acting President
(714) 286-5000

Imperial Valley Campus
720 Heber Avenue
Calexico, California 92231
(714) 357-3721

San Francisco State University
1600 Holloway Avenue
San Francisco, California 94132
Dr. Paul F. Romberg, President
(415) 469-2141

San Jose State University
125 South Seventh Street
San Jose, California 95192
(408) 277-2000

California Polytechnic State University,
San Luis Obispo
San Luis Obispo, California 93407
Dr. Robert E. Kennedy, President
(805) 546-0111
Sonoma State College
1801 East Cotati Avenue
Rohnert Park, California 94928
Dr. Peter Diamandopoulos, President
(707) 664-2880

California State College, Stanislaus
800 Monte Vista Avenue
Turlock, California 95380
Dr. A. Walter Olson, President
(209) 653-2122
Each of The California State University and Colleges by action of the Legislature is privileged to name an advisory board composed of citizens representative of the area served by the college. Appointees are approved by The California State University and Colleges Board of Trustees, and through their participation the college is better able to develop its program in relation to the needs of the college service area. The College is grateful to the following persons for their willingness to serve in this important capacity:

John Ielmini, Chair .......................................................... Patterson
Bettylou George (Mrs.), Vice Chair ...................................... Merced
Thomas K. Beard ................................................................. Stockton
Harold C. Cook ................................................................. Oakdale
A. J. Cusenza ................................................................. Modesto
Patricia D. Gallo (Mrs.) ...................................................... Livingston
Carmen Jackson (Mrs.) ....................................................... Turlock
Tom Madden ................................................................. Stockton
John L. Mensinger ............................................................ Modesto
Wendell J. Olson ............................................................. Merced
Frank H. Saunders ........................................................... Modesto
W. O. (Ted) Thompson ....................................................... Turlock
Donald H. West ................................................................. Modesto

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Hon. Ross A. Carkeet ......................................................... Sonora
Dale V. Dustin ................................................................. Oakdale
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Howard McKinley .............................................................. Oakland
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Frank Ruggieri ................................................................. Modesto
Jane E. Vilas (Mrs.) ........................................................... Patterson
Karl E. Wellman ............................................................... Santa Maria
Stanley T. Wilson ............................................................ Palm Springs
William P. Youngdale .......................................................... Turlock
Otto R. Zentner ................................................................. Los Banos
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President .................................................. Walter Olson, Ph.D.
Vice President for Academic Affairs .......... Curtis R. Grant, Ph.D.
Dean of Students ........................................... Richard Sebok, Ed.D.
Executive Dean ............................................ Gerard J. Crowley, Ed.M.
Business Manager ........................................... Frank C. Balbo, B.S.
Affirmative Action Officer ......................... Joan D. Steele, Ph.D.
Coordinator of Development Services ............. Jean Dietz, B.A.

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Associate Vice President for Academic Affairs .... Hobart G. Hamilton, Jr., Ph.D.
Dean for Academic Personnel ......................... Paul O. Harder, Ph.D.
Dean for Academic Resources ......................... V. Kenneth Shrable, Ph.D.
Dean for Extended Education ......................... Miles E. Twaddell, M.S.
Dean for Graduate Programs ......................... Charles C. Hanna, Ed.D.
Coordinator of Academic Advising ..................... Edward J. Aubert, M.B.A.
Director of Admissions and Articulation .......... C. W. Quinley, Jr., A.B.
Registrar .................................................... E. Lorraine Johnson, B.A.
Coordinator of Audio Visual Services .......... Melvin R. Nickerson, Ph.D.
Coordinator of Personnel Records ..................... Joan D. Steele, Ph.D.
Academic Coordinator of Computer Services .......... Melvin R. Nickerson, Ph.D.
Research & Grants Coordinator ......................... Jean Dietz, B.A.

ACADEMIC ORGANIZATION

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Chair, Department of Art ................................... Winston E. McGee, A.M.
Chair, Department of Biological Sciences ........... Jay P. Christofferson, Ph.D.
Chair, Division of Business Administration .......... Thomas P. Barrett, M.A.
Chair, Department of Chemistry ......................... Alexander J. Pandell, Ph.D.
Chair, Department of Communication Studies ......... Randall C. Ruechelle, Ph.D.
Chair, Department of Drama ................................ Jere D. Wade, Ph.D.
Chair, Department of Economics ....................... Frederick E. Kottke, Ph.D.
Chair, Division of Education ............................ Charles R. Farrar, Ed.D.
Chair, Department of English and Foreign Languages ..................................................................
Coordinator, Ethnic Studies ............................... Richard Luevano, M.A.
and Delo Washington, Ph.D.
Chair, Department of History ............................ Ronald J. VanderMolen, Ph.D.
Chair, Department of Mathematics . . . Narendra L. Maria, Ph.D.
Chair, Department of Music . . . . Donald A. Williams, D.M.A.
Chair, Department of Nursing . . . Jacqueline B. Johnson, M.S.
Coordinator, Philosophy . . . . William H. Hayes, Ph.D.
Chair, Department of Physical Education & Health . . . James K. Hanny, Ed.D.
Chair, Department of Physical Sciences . . Tai-Low Chow, Ph.D.
Chair, Department of Political Science . Paul F. Magnelia, Ph.D.
Chair, Department of Psychology . . . Lewis E. Holt, Ph.D.
Chair, Department of Sociology . . . Joseph A. Novack, Ph.D.

STUDENT SERVICES

Dean of Students . . . . . . . . Richard Sebok, Ed.D.
Associate Dean of Students,
Financial Aids, Veterans Affairs,
Upward Bound, Residence Hall . . . Cary R. Peyton, B.S.
Director of Financial Aids . . . . Joan R. Morris
Director of Upward Bound . . . . Rosemary Eismann, B.S.
Director of Veterans Affairs . . . Michael R. Leaveck, B.A.
Residence Hall Director . . . . . .
Assistant to the Dean of Students
Director of Student Activities,
Health Center . . . . . . . . . . Patricia H. Taylor, M.A.
Nurse Practitioner . . . . . . . . Ina King, F.N.P.
Activities Adviser . . . . . . . .
Director of Career Planning and Placement . . . . . . . . . . Thomas C. Watling, Ph.D.
Student Employment Services Coordinator,
Counselor, Career Planning . . . James D. McGrew, M.S.
Counselor . . . . . . . . . . . . . Carolyn Takhar, M.A.
Director of Testing, Tutorial Services,
Disabled Students, Adult Reentry . . Jerome J. Beamish, Ph.D.
Foreign Student Adviser . . . . Franklin B. Holder, Ph.D.
Director of Educational Opportunity Program/
Student Special Services . . Richard G. Patterson, Jr., B.S.
Director of Athletics . . . . . . Douglas R. Sanderson, M.A.

FACILITY PLANNING - DEVELOPMENT & PERSONNEL

Executive Dean . . . . . . . . Gerard J. Crowley, Ed.M.
Assistant to the Executive Dean . . Lloyd L. Cockrell, Ed.D.
Personnel Officer . . . . . . . . Thomas Parr III, M.A.
BUSINESS MANAGEMENT

Business Manager ........................................... Frank C. Balbo, B.S.
Financial Manager ...........................................
Accounting Officer ........................................... Donald S. Kent, B.S.
Procurement & Support Services Officer ............... Thomas J. White, A.B.
Chief of Plant Operations .................................. John L. Foster, B.S.
Director of Public Safety ................................... Philip E. Ogden, B.A.

COMMUNITY AND SCHOOL RELATIONS

Director of Community & School Relations .......... John S. Bakas, M.A.
Coordinator of Articulation ............................... Jess L. Cuevas, B.A.
Director of Public Information ......................... Wilford R. Keener, B.A.

LIBRARY

Director of the Library ..................................... R. Dean Galloway, M.S.
Head of Public Services & Assistant
  Director of the Library .................................... J. Carlyle Parker, M.L.S.
Head of Technical Services ............................... Peter C. Mollema, Jr., M.A.L.S.
Head Catalog Librarian ..................................... Agnes L. Bennett, A.M.L.S.
Bibliographer .................................................. Robert L. Santos, M.A.
Reference Librarian ........................................... Paula J. Crawford, M.S.L.S.
Serials Librarian ............................................. Priscilla S. Peters, M.L.S.
Reference Librarian ........................................... Judith Ann Thompson, M.L.S.
NOTICE

The Board of Trustees of The California State University and Colleges, in Section 43800 of Title 5 of the California Administrative Code, has reserved the right to add, amend, or repeal any of its regulations, rules, resolutions, standing orders, and rules of procedure, in whole or in part, at such time as it may choose. None shall be construed, operate as, or have the effect of an abridgement or limitation of any rights, powers, or privileges of the Trustees. The Chancellor reserves the right to add, amend or repeal any of his Executive Orders, at such time as he may choose, and the President of California State College, Stanislaus reserves the right to add, amend, or repeal provisions of this catalog and rules of the College, including handbooks, at such time as he may choose. No Executive Order shall be construed, operate as, or have the effect of an abridgement or limitation of any rights, powers, or privileges of the Chancellor nor shall any catalog provision or rule of the College be construed, operate as, or have the effect of an abridgement or limitation of any rights, powers, or privileges of the President.

Every effort has been made to assure the accuracy of the information in this catalog. Students are advised, however, that such information is subject to change without notice. Therefore, they should consult the appropriate instructional departments, schools, or administrative offices for current information.
AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY

California State College, Stanislaus provides students access to its programs without regard to ethnicity, sex, age, or physical handicap. The College policies and procedures are in accordance with Title VII of the Civil Rights Act of 1964, Presidential Executive Order 11246, as amended, the Veterans Assistance Act of 1972, Section 504 of the Rehabilitation Act of 1973, and other pertinent legislation to assure affirmative action and equal employment opportunity for all qualified persons without regard to race, sex, marital status, age, handicap, religion, national origin, or Viet Nam era veteran status.

NONDISCRIMINATION ON THE BASIS OF SEX

The California State University and Colleges does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by California State College, Stanislaus. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of California State College, Stanislaus may be referred to Joan Steele, the campus officer assigned the administrative responsibility of reviewing such matters or to the Regional Director of the Office for Civil Rights, Region 9, 760 Market Street, Room 700, San Francisco, California 94102.

NONDISCRIMINATION ON THE BASIS OF HANDICAP

The California State University and Colleges does not discriminate on the basis of handicap. The CSUC operates in accordance with Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder, in admission or access to or treatment or employment in the programs and activities of The California State University and Colleges. Affirmative Action Officer Joan Steele, Dean of Students Richard Sebok, and Executive Dean Gerard Crowley have been designated to coordinate the efforts of California State College, Stanislaus to comply with the Act and its implementing regulations. Inquiries concerning compliance may be addressed to any of the above at the College.
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 (45 C.F.R. 99) and California Education Code Section 67100 et seq, set out requirements designed to protect the privacy of students concerning their records maintained by the campus. Specifically, the statute and regulations govern 1) access to student records maintained by the campus, and 2) the release of such records. In brief, the law provides that the campus must provide students access to official records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate; the right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor. The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions. The institution has adopted a set of policies and procedures concerning implementation of the statutes and the regulations on the campus. Copies of these policies and procedures may be obtained at the Student Services Office in L-102. Among the types of information included in the campus statement of policies and procedures is: 1) the types of student records and the information contained therein; 2) the official responsible for the maintenance of each type of record; 3) the location of access lists which indicate persons requesting or receiving information from the record; 4) policies for reviewing and expunging records; 5) the access rights of students; 6) the procedures for challenging the content of student records; 7) the cost which will be charged for reproducing copies of records, and 8) the right of the student to file a complaint with the Department of Health, Education and Welfare. An office and review board have been established by the Department to investigate and adjudicate violations and complaints. The office designated for this purpose is: The Family Educational Rights and Privacy Act Office (FERPA), Department of Health, Education and Welfare, 330 Independence Avenue, SW, Washington, D.C. 20201.

The campus is authorized under the Act to release public directory information concerning students. Directory information includes the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student and any other information authorized in
writing by the student. The above designated information is sub-
ject to release by the campus at any time unless the campus has
received prior written objection from the student specifying
information which the student requests not be released. Written
objections should be sent to the office that is involved with the
specific objections, e.g., Admissions and Records, Placement, etc.
The campus is authorized to provide access to students' records
to campus officials and employees who have legitimate
educational interests in such access. These persons are those
who have responsibilities in connection with the campus' academic,
administrative or service functions and who have reason for using
student records connected with their campus or other related
academic responsibilities.

REQUIREMENT AND USE OF SOCIAL SECURITY NUMBER

Applicants are required to include their social security
number in designated places on applications for admission pursuant
to the authority contained in Title 5, California Administrative
Code, Section 41201. The social security number will be used as
a means of identifying records pertaining to the student as well
as identifying the student for purposes of financial aid eligi-
bility and disbursement and the repayment of financial aid and
other debts payable to the institution.
GENERAL INFORMATION

THE COLLEGE AND COMMUNITY

California State College, Stanislaus is a liberal arts institution founded in 1957 as the 14th member of the California State University and Colleges. Classes were first offered in 1960 in temporary quarters, and in 1965 the College moved to its permanent 220-acre campus on the north edge of Turlock in Stanislaus County. The College opened with approximately 750 upper-division students; enrollment has grown to a current figure of approximately 3,500.

The majority of the students are from the college's six-county service area; however, the entire state is well represented on the campus, as are other western states and a number of foreign countries.

The College continues to attract attention in educational circles with one of the most innovative and dynamic academic programs in the state system. Curriculum policy in the future is expected to be a substantial continuation and expansion of the College's broad-based liberal arts package.

Bachelor degrees are offered in 27 subject areas; and master's degrees are offered in eight: Business Administration, Education, English, History, Psychology, Public Administration, Speech, and Special Major.

Turlock is located midway between the San Francisco Bay area and the Sierra Nevada mountains. Students enjoy the rural setting of the campus, yet have easy access to the outstanding cultural events in San Francisco and the recreational pastimes of the Sierra. For those who enjoy the ocean, Santa Cruz and the Monterey Peninsula are also nearby. There are also several lakes, parks, and other recreational areas much closer to Turlock.

The city of Turlock is a growing community of more than 20,000 persons, and is situated on the southern edge of Stanislaus County, about 13 miles south of Modesto, the county seat. The economy of Turlock, as in most cities of Central California, is based largely upon agricultural products and food processing plants.

Turlock has six elementary schools, a high school, two hospitals, a daily newspaper, a radio station, three theatres, and ample housing and shopping facilities.
General Information

THE ACADEMIC PROGRAM

Being a small liberal arts college, CSCS combines academic excellence with a friendly, close-knit spirit among the students and faculty. The favorable faculty-student ratio permits small discussion groups, and a sense of informality.

Students are encouraged to develop a broad background in their first two years before majoring in one of the 27 areas available through the College: The major areas are:

- Anthropology
- French
- Physics
- Art
- Geography
- Political Science
- Biological Sciences
- History
- Psychology
- Business Administration
- Liberal Studies
- Social Sciences
- Chemistry
- Mathematics
- Sociology
- Child Development
- Music
- Spanish
- Drama
- Nursing
- Special Major
- Economics
- Physical Education
- Speech
- English
- Physical Sciences
- Vocational Education

Courses are also offered in German, health, ethnic studies, geology, astronomy, philosophy, and recreation, to supplement the existing major programs.

Master of Arts degrees are available in Education, English, History, Psychology, Special Major, and Speech; Master of Business Administration degree; Master of Science degree in Psychology; and Master of Public Administration.

ACCREDITATION

California State College, Stanislaus is fully accredited by the Western Association of Schools and Colleges. The Department of Chemistry is nationally accredited by the American Chemical Society.

4-1-4 ACADEMIC CALENDAR

From September 1960 through Summer 1965, the College operated on the semester system, each semester being approximately 16 weeks in length.

In September 1965, the College converted to the quarter system, each quarter being about 11 weeks in length.

Beginning with the 1973 Summer Session, the College returned to the semester system.

In September 1973, the College adopted a 4-1-4 calendar which provides for a 13-week fall semester, a one-month winter term, and a 13-week spring semester.

Semester units can be converted to quarter units by multiplying by 1-1/2 (4 semester units x 1-1/2 = 6 quarter units).

Quarter units are converted to semester units by multiplying by 2/3 (9 quarter units x 2/3 = 6 semester units).
SUMMER SESSION AND EXTENSION

The College offers summer session programs each year with courses available in most of the major areas of the curriculum. The programs offered enable students to complete degree requirements more rapidly than would otherwise be possible. The summer session also allows students the opportunity to acquire depth in academic fields, to complete credential requirements, and to advance their professional competencies. Summer session is the first term of the academic year. A summer session Bulletin is issued annually.

The College offers a program of extension courses. Extension credit may be considered by the Admissions and Records office toward a degree only if requested by a student.

During the regular academic year, non-matriculated students may, on a space-available basis, enroll in regular upper division courses through extension. Students may obtain registration packets from the Office of Continuing Education.

Summer session and extension students planning to complete the College's degree or credential programs should seek admission to the College.

For information, refer to the Office of Continuing Education.

THE FACILITIES

Facilities at California State College, Stanislaus are strikingly modern and blend in well with the pastoral charm of the countryside. The 220-acre campus provides ample room for growth as enrollment dictates and assures that buildings can be erected only a short walk apart while maintaining the spacious atmosphere of the surrounding area.

The Library/Administration Building and the Classroom Building were the first buildings constructed on the permanent campus and were opened in 1965. These two facilities are the hub of the campus and serve a variety of purposes as well as providing space for most faculty and administrative offices.

The Performing Arts Complex, which opened in the fall of 1970, is a multibuilding project which houses the departments of art, drama, and music. The modern and very comfortable 300-seat Mainstage Theatre is the site of most drama productions and a number of recitals and concerts plus being the platform for numerous visiting lecturers. A concert hall that can seat up to 200 persons is a feature of the music facilities in the Performing Arts Complex while the art facilities are highlighted by spacious and functional rooms that provide up-to-date equipment for practically all the art media.

The Science Building, completed and put into use in 1972, is one of the most modern science facilities of its kind in the California State University and Colleges system. With much traditional and space-age equipment, including an electron microscope,
General Information

the Science Building offers a multitude of laboratories and classroom paraphernalia for science and mathematics students.

A Dining Hall opened in the fall of 1972 and has become the center of attention for students during their leisure hours. The main dining room can seat nearly 700 for lunch or for special programs. A snack bar, which is open evenings, features entertainment on a regular basis.

The new Physical Education facility, which was completed in 1977, is capable of serving the needs of the many indoor physical education courses. Seating for over 2,000 persons is also available.

A new College Union/Book Store was completed in early 1978. In addition to a modern well-equipped bookstore, the building includes student lounges, conference rooms and offices for student government.

LIBRARY

The Library provides the recorded knowledge and cultural materials that students and faculty need for study and research. These materials are freely available in an attractive and comfortable building staffed by paraprofessional library assistants and by professionally trained librarian-scholars who organize, analyze, and interpret those materials. Professional reference service and reader advisory service are available most hours the library is open. The librarians also aid students in acquiring the principles of independent library research by formal courses and individual instruction.

The Library occupies the second floor of the Library building. It seats 330 readers in a variety of seating patterns.

The general collection of the Library has been selected to meet the needs of the curriculum. It contains over 180,000 volumes of books and about 3,500 periodicals. Backfiles of most of these periodicals are available. The Library is a selective depository of the U.S. Government publications and is also a complete depository of California State publications.

The Library has a Curriculum Library and Children's Collection. About 5,000 courses of study, curriculum guides, and units of work are available. A model collection of about 2,000 of the best children's books comprises the Children's Collection.

Books and other library materials that are not locally available are obtained quickly on loan from other libraries in the region.
The College provides centralized audiovisual services which are designed to enrich classroom instruction by providing access to the latest equipment and materials available. The media library on campus lists 350 film titles and nearly 50 videocassette tapes which are used extensively by the faculty and students. About 500 filmstrips are also available.

Extensive bookings of films and other off-campus materials are available through rentals from major film libraries throughout the United States.

Television, reel-to-reel, and videocassette recorders are available through the Audiovisual Center for students and faculty use in course-connected activities. The College maintains a television dynamics laboratory with remote controlled equipment in a closed circuit system, and the Division of Education provides videotape recorders for evaluation and improvement of student teaching in the credential program.

The Audiovisual Center provides professional assistance to faculty for the design and implementation of innovative instructional development. Utilization of sophisticated technological advances in the delivery of various teaching strategies is made possible through emphasis on the latest teaching techniques in higher education.
General Information

INSTITUTIONAL AND FINANCIAL ASSISTANCE INFORMATION

The following information concerning student financial assistance may be obtained from the Director of Financial Aids, Room L-109, telephone 633-2336:

1. Student financial assistance programs available to students who enroll at California State College, Stanislaus;
2. The method by which such assistance is distributed among student recipients who enroll at California State College, Stanislaus;
3. The means, including forms, by which application for student financial assistance is made; the requirement for accurately preparing such applications; and the review standards employed to make awards for student financial assistance; and
4. The rights and responsibilities of students receiving financial assistance.

The following information concerning the cost of attending California State College, Stanislaus is available from Student Services Office, Room L-102, telephone 633-2331:

1. Tuition fees;
2. Estimated costs of books and supplies;
3. Estimates of typical student room and board costs or typical community costs; and
4. Any additional costs of the program in which the student is enrolled or expresses a specific interest.

Information concerning the refund policy of California State College, Stanislaus for the return of unearned tuition and fees or other refundable portions of costs is available from Admissions and Records Office, Room L-104, telephone 633-2151.

Information concerning the academic programs of California State College, Stanislaus may be obtained from the Vice President for Academic Affairs, Room L-163, telephone 633-2203. This information may include:

1. The current degree programs and other educational and training programs;
2. The instructional, laboratory, and other physical plant facilities which relate to the academic program;
3. The faculty and other instructional personnel; and
4. Data regarding student retention at California State College, Stanislaus and, if available, the number and percentage of students completing the program in which the student is enrolled or expresses interest.
The College admits qualified high school graduates, transfer students from two-year colleges and four-year institutions, and graduate students for specific course work and programs leading to baccalaureate degrees, advanced degrees, school service credentials, and several professions.

ADMISSION REQUIREMENTS

Requirements for admission to the College are in accordance with Title 5, Chapter 1, Subchapter 3, of the California Administrative Code. Prospective applicants who are unsure of their status under these requirements are encouraged to consult a school or college counselor, or the College Admissions and Records Office.

ADMISSION AS A FIRST-TIME FRESHMAN

An applicant who has completed no college work after high school graduation will be considered for admission as a first-time freshman under one of the provisions in this section. Submission of the results of the American College Test (ACT) or the College Entrance Examination Board Scholastic Aptitude Test (SAT) is required to establish eligibility.

Overall excellence of performance in high school subjects and evidence of academic potential provide the basis for admission at the College. While no course pattern is required, the applicant, to be properly prepared to undertake a full program of studies and particularly to pursue the required program in general education, is strongly encouraged to include the following subjects as minimally adequate background for college work:

1. College preparatory English, 3 years (4 years preferred)
2. Foreign language, 2 years in one language
3. College preparatory mathematics, 2 years
4. College preparatory laboratory science, 1 year in 11th or 12th grade
5. College preparatory history and/or social sciences, 2 years
6. Study in speech, music, art, and other subjects contributing to general academic background.

Below is a more specific listing of high school subjects specially recommended for students who intend to pursue majors offered by the College.

ANTHROPOLOGY: Social Sciences, 4 years preferred.

ART: Drawing, painting, printmaking, ceramics, photography, and sculpture, as much high school and independent work in these fields as possible.
Admission to the College

BIOLOGICAL SCIENCES: Mathematics, through trigonometry; foreign languages, 2 years (French or German preferred); biology, preferably 2 years; chemistry, 1 year; physics, 1 year.

BUSINESS ADMINISTRATION: Mathematics, 4 years; English, 4 years.

CHEMISTRY: Mathematics, 4 years (through trigonometry); chemistry, 1 year; physics, 1 year.

CHILD DEVELOPMENT: Biology; English, 4 years; mathematics, 4 years preferred (through trigonometry); social sciences, 4 years preferred.

DRAMA: English, 4 years; as much high school and independent drama experience as possible.

ECONOMICS: Social Sciences, 4 years preferred; mathematics, 4 years preferred.

ENGLISH: English, 4 years; foreign language, 4 years.

FRENCH: Foreign language, 2 to 4 years French preferred.

GEOGRAPHY: Biology and physical sciences, 2 years.

HISTORY: History and/or social sciences, 4 years preferred.

LIBERAL STUDIES: A broad selection of elective courses.

MATHEMATICS: Mathematics, 4 years (through trigonometry); physics, 1 year.

MUSIC: As much private music study as possible, as much participation in both vocal and instrumental music as possible, at least 1 year of music theory if offered, and 2 years French or German for voice majors.

PRE-NURSING: Biology, 1 year; chemistry, 1 year; physics, 1 year; English, 4 years.

PHYSICAL EDUCATION: Biology; English, 4 years, social sciences, 4 years; as much participation in high school athletic and/or intramural programs as possible.

PHYSICAL SCIENCES: Physics, 1 year; chemistry, 1 year; mathematics, 4 years (through trigonometry).

PHYSICS: Physics, 1 year; chemistry, 1 year; mathematics, 4 years (through trigonometry).

POLITICAL SCIENCE: History and/or social sciences, 4 years preferred; English, 4 years.
Admission to the College

PSYCHOLOGY: Biology; mathematics, 4 years (through trigonometry); English, 4 years; social sciences, 4 years preferred.

SOCIAL SCIENCES: Social Sciences, 4 years preferred.

SOCIOLOGY: History and/or social sciences, 4 years preferred.

SPANISH: Foreign language, 2 to 4 years Spanish preferred.

SPEECH: Courses in speech and/or speech activities; English, 4 years; social sciences, 4 years preferred.

CALIFORNIA HIGH SCHOOL GRADUATES AND LEGAL RESIDENTS, An applicant who is a graduate of a California high school or a legal resident of California for tuition purposes must have a grade point average and composite ACT or total SAT score which provides an eligibility index placing him among the upper one-third of California high school graduates. The minimum eligibility index is 741 for the ACT or 3072 for the SAT. It is computed by multiplying grade point average by 200 and adding it to ten times the composite ACT score or by multiplying grade point average by 800 and adding it to the total SAT score. The grade point average is based upon all high school work taken, excluding work completed in the freshman year as well as any courses in physical education or military science. For admission eligibility purposes, the College accepts the best ACT or SAT score for tests taken prior to high school graduation. The table on the next page provides the test scores needed with a given grade point average to be eligible for admission.

California residents who are military service personnel or veterans may be considered under special admission requirements.

NONRESIDENTS GRADUATING FROM HIGH SCHOOLS IN OTHER STATES OR POSSESSIONS, Applicants who are nonresidents for tuition purposes and who are graduates of a high school in another state or a U.S. possession must have an eligibility index which would place them among the upper one-sixth of California high school graduates. The minimum required eligibility index is 826 for the ACT, or 3402 for the SAT, and is calculated as in the previous section.

GRADUATES OF SECONDARY SCHOOLS IN A FOREIGN COUNTRY, Applicants who are graduates of a foreign secondary school must have preparation equivalent to that required of eligible California high school graduates. The College will carefully review the previous record of all such applicants and only those with promise of academic success equivalent to that of eligible California high school graduates will be admitted. Such applicants are not required to take the ACT or SAT except when requested to do so; special requirements may apply. Unless specifically exempted, the College Entrance Examination Board Test of English as a Foreign Language (CEEB TOEFL) is required.

NONHIGHSCHOOL GRADUATES, An applicant who is over 18 years of age, but who has not graduated from high school will be considered for admission only when preparation in all other ways is such that the College believes promise for academic success is equivalent to that of eligible California high school graduates.
## ADMISSION ELIGIBILITY FOR CALIFORNIA HIGH SCHOOL GRADUATES

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HIGH SCHOOL STUDENTS ENTERING ADVANCED PLACEMENT PROGRAM. Students still enrolled in high school will be considered for enrollment in the College's Advanced Placement Program if they are recommended by their principal and preparation is equivalent to that required of eligible California high school graduates. Such admission is only for specific course work and does not constitute the right to continued enrollment. Submission of a special application form each term is a prerequisite for continued enrollment. Such applicants are not required to take the ACT or SAT. Regular application procedures are not applicable.

The College Advanced Placement Program is intended to supplement the curriculum available to qualified high school students by opening college courses to them, to provide these students with the opportunity for a gradual transition to college, and to extend qualified students to the utmost limits of their intellectual capacities at as young an age as is practicable. A high school student admitted to this program may enroll in any lower division course providing all course prerequisites are satisfied. Regular college credit will be awarded. Inquiries should be addressed to the Director of Admissions, who is responsible for approving these applications.

ADMISSION AS AN UNDERGRADUATE TRANSFER

An applicant for admission to the College as an undergraduate transfer who is in good standing at the last college attended will be considered for admission under one of the following provisions. California residents who are military service personnel or veterans may be considered under special admission requirements. Transferable courses are defined as those officially certified as baccalaureate-level by the regionally accredited college at which the courses were taken. California Community College transfers should consult their college counselor for information on transferability of courses.

APPLICANTS WITH FEWER THAN 56 TRANSFERABLE SEMESTER UNITS.
Applicants who have completed fewer than 56 transferable semester units are eligible for admission if they meet the current first-time freshman requirements and have earned a grade point average of at least 2.0 (C) for all transferable college units attempted. Either ACT or SAT results are required of a transfer applicant with fewer than 56 transferable semester units.

APPLICANTS WITH 56 OR MORE TRANSFERABLE SEMESTER UNITS.
Applicants who have completed 56 or more transferable semester units are eligible for admission if they have earned a grade point average of at least 2.0 (C) for all transferable college units attempted. A nonresident applicant must have a grade point average of at least 2.4 (C+).

ADMISSION AS AN INTERNATIONAL STUDENT. The admission of an international (foreign) student with college credit is governed by separate requirements. Prospective applicants from abroad should
Admission to the College

consult the College Admissions and Records Office for additional instructions. Unless specifically exempted, the College Entrance Examination Board Test of English as a Foreign Language (CEEB TOEFL) is required.

OTHER UNDERGRADUATE APPLICANTS. Applicants not admissible under one of the above provisions should enroll in a two-year college or other appropriate institution, or consult the College Admissions Office for advice regarding their situation. Only under the most unusual circumstances will such applicants be permitted to enroll in the College. Permission is granted only by special action.

ADMISSION AS A POSTBACCALAUREATE OR GRADUATE STUDENT

POSTBACCALAUREATE STANDING: UNCLASSIFIED. For admission to unclassified postbaccalaureate standing, a student must: (a) hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation as determined by an appropriate campus authority; (b) have attained a grade point of at least 2.5 (C+) in the last 60 semester units attempted; and, (c) have been in good standing at the last college attended. Admission to the College with postbaccalaureate unclassified standing does not constitute admission to graduate degree curricula.

POSTBACCALAUREATE STANDING: CLASSIFIED. A student who is eligible for admission to the College in Unclassified standing may be admitted to Classified postbaccalaureate standing for the purpose of enrolling in a particular postbaccalaureate credential or certificate program; provided, that such additional professional, personal, scholastic, and other standards, including qualifying examinations, as may be prescribed for the particular program by the appropriate campus authority are satisfied. Program Coordinator approval is required.

GRADUATE STANDING: CONDITIONALLY CLASSIFIED. A student who is eligible for admission to the College under Unclassified postbaccalaureate standard above, but who has deficiencies in prerequisite preparation which in the opinion of the appropriate campus authority can be met by specified additional preparation, including qualifying examinations, may be admitted to an authorized graduate degree curriculum with Conditionally Classified Graduate Standing. Program Coordinator approval is required.

GRADUATE STANDING: CLASSIFIED. Students who are eligible for admission to the College in Unclassified or Conditionally Classified Standing may be admitted to an authorized graduate degree curriculum of the campus as a classified graduate student if they satisfactorily meet the professional, personal, scholastic, or other standards for admission to the graduate degree curriculum,
Admission to the College

including qualifying examinations, as the appropriate campus authority may prescribe. Only those applicants who show promise of success and fitness will be admitted to graduate degree curricula, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness shall be eligible to proceed in such curricula. Program Coordinator approval is required.

STUDENTS FORMERLY ENROLLED

Students formerly enrolled at the College who after an absence of one or more semesters desire to return may be readmitted by formally applying for readmission. Formerly enrolled students are subject to the regular application procedure and filing dates.

CSUC VISITORS PROGRAM

Any student entitled to continued enrollment at one of the other 18 campuses of The California State University and Colleges system may enroll for any term at the College as a visiting student by following a simplified application procedure. Concurrent enrollment at two CSUC campuses may similarly be approved. Students at the College also may apply for visitor status at another CSUC campus. CSUC Visitor Status and Concurrent Enrollment application forms are available on request from the College Admissions and Records Office.

CALIFORNIA RESIDENCY CLASSIFICATION

New and returning students of The California State University and Colleges are classified for the purpose of determining the residence of each student for nonresident tuition purposes. The Residence Questionnaire and, if necessary, other evidence furnished by the student is used in making these determinations. Students may not register and enroll in classes until their Residence Questionnaire has been received by the Admissions Office.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by the California State University and Colleges is found in Education Code Sections 68000-68090, 90463, 89705-89707.5 and 68122, 68124 and 68121, and in Title 5 of the California Administrative Code, Article 4 (commencing with Section 41900) of Subchapter 5 of Chapter 1, Part V. A copy of the statutes and regulations is available for inspection at the campus Admissions Office.

Legal residence may be established by adults who are physically present in the state while, at the same time, intending to make California their permanent home. Steps must be taken at least one year prior to residence determination date to evidence the intent to make California the permanent home with concurrent relinquishment of the prior legal residence. Some of the relevant indicia of an intention to establish and maintain California residence may be established by registering to vote and voting in elections in
Admission to the College

California; satisfying resident California state income tax obligations on total income; ownership of residential property or continuous occupancy or letting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service, etc.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of stay in California.

In general, unmarried minors (under 18 years of age) derive legal residence from their father, or, in the case of permanent separation of the parents, from the parent with whom the minor maintains place of abode. The residence of a minor cannot be changed by act of the minor or that of the minor’s guardian, so long as the minor’s parents are living.

A man or a woman may establish his or her residence; marriage is not a governing factor.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. The designated residence determination dates are September 20 for the fall semester, January 5 for the winter term, and January 25 for the spring semester.

There are several exceptions for nonresident tuition. Some of the exceptions provide for:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student was still a minor. If the minor remains in California, the exception continues for one year after age 18 to enable the student to qualify as a resident student.

2. Persons below the age of 19 who have been present in California for more than a year before the residence determination date, and entirely self-supporting for that period of time.

3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.

4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year. The exception is not affected by transfer of the military person directly to a post outside the 50 states and District of Columbia.

5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of
higher education. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.

6. A student who is an adult alien is entitled to residence classification if the student has been lawfully admitted to the United States for permanent residence in accordance with all applicable provisions of the laws of the United States; provided, however, that the student has had residence in California for more than one year after such admission prior to the residence determination date. A student who is a minor alien shall be entitled to residence classification if both the student and the parent from whom residence is derived have been lawfully admitted to the United States for permanent residence in accordance with all applicable laws of the United States, provided that the parent has had residence in California for more than one year after acquiring such permanent residence prior to the residence determination date of the term for which the student proposes to attend the College.


8. Certain credentialed, full-time employees of school districts.

9. Full-time State University and Colleges employees and their children and spouses. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.

10. Certain exchange students.

11. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.

12. A person in continuous full-time attendance at an institution who had resident classification on May 1, 1973, shall not lose such classification as a result of adoption of the uniform student residency law on which this statement is based, until the attainment of the degree for which currently enrolled.

Any student, following a final decision on campus on his residence classification, may make written appeal to:

The California State University & Colleges
Office of General Counsel
400 Golden Shore
Long Beach, California 90802

within 120 calendar days of notification of the final decision on campus of his classification. The Office of General Counsel may make a decision on the issue, or it may send the matter back to the institution with instructions for a further review on campus. Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to
Admission to the College

reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the California Administrative Code. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admissions Office. Applications for a change in classification with respect to a previous term are not accepted.

The student is cautioned that this summation of rules regarding residency determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.

HONORS AT ENTRANCE

Honors at Entrance is awarded an admitted undergraduate student whose past record indicates promise of superior academic achievement at the College.

ADMISSION APPLICATION PROCEDURES

UNDERGRADUATE APPLICATION PROCEDURES

All prospective undergraduates must file a complete application for admission and a $20 nonrefundable application fee. Applications may be obtained from any campus of the system or high school and community college counselors, and should be filed with the campus of first choice. Alternate choice campuses and majors may be indicated on the application.

POSTBACCALAUREATE APPLICATION PROCEDURES

All applicants for any type of postbaccalaureate status (e.g., master's degree applicants, those seeking credentials, and those interested in taking courses for personal or professional growth, etc.) must file a complete application within the appropriate filing period. A complete application for postbaccalaureate status includes all materials required for undergraduate applicants plus the supplementary admissions application and all required departmental program admission materials. Postbaccalaureate applicants who were enrolled as undergraduate students at the College in the term immediately preceding the term for which they now wish to apply are also required to complete the submit admission application forms and remit the $20 nonrefundable application fee.

Since applicants for postbaccalaureate programs will be limited to the choice of a single campus on each application,
Admission to the College

redirection to alternative campuses or later changes of campus choice will be minimal. In the event that a postbaccalaureate applicant wishes to be assured of initial consideration by more than one campus, it will be necessary to submit a separate application and fee to each.

Application materials may be obtained from the Admissions Office or the Graduate Studies Office of any campus within the system. Direct applicant contact with the graduate program department is advisable.

WHO NEED APPLY

An Application for Admission or Readmission form must be filed by any person who plans to enroll at the College for a fall, winter, or spring term and who either was not enrolled for residence credit or audit courses, or who withdrew from the College, during the semester preceding the term of intended enrollment. A student enrolled at the College who qualifies for a baccalaureate degree must apply for readmission with postbaccalaureate standing and declare a new educational objective so that continued enrollment may be considered. Enrollment in summer session or extension courses does not exempt a person from the above admission application procedures.

STUDENTS SEEKING PART-TIME ENROLLMENT. Students seeking to enroll in a fall, winter, or spring term for a part-time or evening program of courses also must complete the admission procedure and are subject to the admission requirements stated above.

STUDENTS SEEKING ENROLLMENT AS AUDITORS WITHOUT CREDIT. Students seeking only to audit courses without credit must complete the admission procedure. If admitted to the College, these students must pay the same registration fees as other students. (See Auditors)

STUDENTS SEEKING SUMMER SESSION OR EXTENSION ENROLLMENT. Students seeking to enroll only for summer session or extension courses are not subject to the admission requirements stated above and are not required to comply with the admission procedure or to matriculate unless they intend to complete the College's degree or credential requirements. For Summer Session and Extension, special enrollment procedures will apply. Summer session students and extension students who will be enrolling in residence credit courses to complete the College's degree or credential requirements may qualify for existing degree or credential requirements and secure assignment to a major adviser by completing the admission procedure and satisfying admission requirements.
Admission to the College

APPLICATION FILING PERIODS

Applications for admission are accepted according to the following schedule:

<table>
<thead>
<tr>
<th>TERM</th>
<th>FIRST MONTH OF FILING PERIOD</th>
<th>STUDENT NOTIFICATION BEGINS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Quarter</td>
<td>the previous February</td>
<td>March</td>
</tr>
<tr>
<td>Fall Quarter/Semester</td>
<td>the previous November</td>
<td>December</td>
</tr>
<tr>
<td>Winter Quarter/Term*</td>
<td>the previous June</td>
<td>July</td>
</tr>
<tr>
<td>Spring Quarter/Semester</td>
<td>the previous August</td>
<td>September</td>
</tr>
</tbody>
</table>

SEASONAL CALENDAR CAMPUSES

<table>
<thead>
<tr>
<th>Term</th>
<th>First Month of Filing Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chico</td>
<td>the previous February</td>
</tr>
<tr>
<td>Fresno</td>
<td>the previous November</td>
</tr>
<tr>
<td>Fullerton</td>
<td>the previous June</td>
</tr>
<tr>
<td>Long Beach</td>
<td>the previous August</td>
</tr>
<tr>
<td>Bakersfield</td>
<td>the previous February</td>
</tr>
<tr>
<td>Sacramento</td>
<td>the previous November</td>
</tr>
<tr>
<td>San Diego</td>
<td>the previous August</td>
</tr>
<tr>
<td>San Francisco</td>
<td>the previous June</td>
</tr>
<tr>
<td>Hayward</td>
<td>the previous August</td>
</tr>
<tr>
<td>San Jose</td>
<td>the previous February</td>
</tr>
<tr>
<td>Humboldt</td>
<td>the previous November</td>
</tr>
<tr>
<td>San Francisco</td>
<td>the previous June</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>the previous August</td>
</tr>
<tr>
<td>San Francisco</td>
<td>the previous June</td>
</tr>
<tr>
<td>Cal Poly, S.L.O.</td>
<td>the previous August</td>
</tr>
</tbody>
</table>

Each campus accepts applications until program quotas are reached. Most campuses accept applications up to a month prior to the opening day of the term. Campuses will close individual programs as they reach capacity.

All applications postmarked or received during the first month of the filing period will receive consideration within the campuses' established enrollment categories and quotas. There is no advantage in filing before the filing period.

CATEGORY QUOTAS AND IMPACTED PROGRAMS

Most undergraduate applications are accepted for consideration at the first choice campus in the first choice major. However, quotas have become necessary in a few majors at some campuses where more applications are received during the first month of the filing period than can be accommodated. In those programs, only applications received during the first month of any filing period will be accepted for consideration. Applicants for impacted programs must apply during the first month of any filing period. Supplementary screening criteria are used to determine which applications will be allocated space in impacted programs. Campuses may consider hardship appeals from applicants.

*The Stanislaus campus is on a modified semester system known as the 4-1-4 calendar with an early fall semester concluding before the Christmas break, a winter term of one month in January, and a spring semester ending in May.
LOCALLY IMPACTED PROGRAMS. Supplementary screening criteria are used to determine which applications will be allocated space at the first choice campus and which will be considered at the same campus in an alternate major or redirected to an alternate campus where the program is not impacted. In categories for first-time freshmen and lower division transfers with fewer than 12 transferable semester units, at least one-half of the available space will be reserved for the most highly qualified applicants based on previous academic performance as measured by the Eligibility Index. High school grade point averages based on all grades earned after the 9th grade (except those in P.E. and military science) as reported by applicants on the application, and test scores received by the campus no later than the end of the first month of the filing period will be used to compute the Eligibility Index. Remaining space may be allocated on the basis of self-declared GPA, test scores or other criteria. Campuses using other criteria will advise affected applicants of those criteria. Space in categories for transfer students with 12 or more transferable semester units may be allocated on the basis of self-declared GPA or other criteria. Campuses using other criteria will advise affected applicants of those criteria.

SYSTEMWIDE IMPACTED PROGRAMS. These are programs where applications received throughout the system exceed the total available spaces in the system. Unlike unaccommodated applicants to locally impacted programs who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major but may choose an alternate major either at the first choice campus or another campus. Details about the supplementary admission criteria to be used by campuses will be sent all applicants under consideration. Some of the systemwide impacted programs in recent terms are architecture, architectural or construction or landscape engineering, fisheries, forestry, graphic or interior design, natural resources planning and interpretation, basic nursing, oceanography, radiologic technology, range or wildlife management, and occupational or physical therapy.

SPACE RESERVATIONS

Applicants who can be accommodated within enrollment quotas will receive confirmation of space reservation. A space reservation notice is not admission to a campus; it is a commitment on the part of the campus to admit a student once eligibility has been determined. When students receive a space reservation notice, they should initiate action to have transcripts of any college and high school work sent to the campus where space has been reserved. The campus will inform them of the number of copies of transcripts required, dates for submittal, and where they should be sent. The student should not request that transcripts be sent until requested to do so by the campus where space has been reserved.

Each campus has established procedures to consider qualified applicants who would be faced with an extreme hardship if not
Admission to the College

admitted. Prospective hardship petitioners should contact the concerned campus regarding specific policies governing hardship admission.

APPLICATION FEE

A fee of twenty dollars ($20) is charged for processing of applications for admission to the College. This fee is nonrefundable, nontransferable to a different term, and applies to (1) all persons not regularly enrolled at the College during any of the three terms immediately preceding, (2) former students who subsequently registered in another college for residence, summer, extension, or correspondence courses, and (3) all applicants for first-time postbaccalaureate student status. Students seeking summer session or extension registration only are exempt from this requirement.

TRANSCRIPTS REQUIRED

An undergraduate applicant must request two sets of complete official transcripts from (1) the last high school he attended and (2) each college and university at which he registered, to be sent directly to the Admissions and Records Office. Transcripts presented by students cannot be accepted.

If applicable, General Educational Development (GED) examination results and California High School Proficiency Examination Certificates must be submitted in addition to available high school records.

All transcripts and supporting admission documents are due in the Admissions and Records Office three weeks after the date requested or the following dates, whichever is later: March 1 for the fall semester, October 1 for the winter term, and December 1 for the spring semester.

No determination of admission eligibility will be made until all required transcripts have been received. Official transcripts must include a complete record of all previous high school and college work attempted whether or not the applicant desires credit. A separate official transcript is required from each college attended even though one transcript may show work completed at another college. All records submitted become the property of the College and cannot be returned to the applicant or duplicated.

APPLICANTS WITH COURSES IN PROGRESS: An applicant who is in attendance at a school or college on the date transcripts are requested must file a transcript which includes verification of the subjects in which currently enrolled. After applicants have completed these subjects, they must notify the school or college to forward two supplementary transcripts showing the final grades for that term.

VETERANS: Veterans who desire to have their military records evaluated for possible credit toward a baccalaureate degree must file a copy of their separation papers (DD 214) or form DD 295 with their application.
Admission to the College

POSTBACCALAUREATE AND GRADUATE STUDENTS. Applicants who hold a baccalaureate degree from an accredited institution and who are not seeking a degree or credential from the College need only to verify their baccalaureate degree to the Admissions and Records Office by filing when requested to do so, two official transcripts from the institution at which the degree was earned. A graduate who is seeking admission to a degree, credential or certificate program must request that two copies of complete official college transcripts be sent directly to the Admissions and Records Office from each college (other than Stanislaus) and university at which registered.

FORMER STUDENTS. Former students of the college who are returning after graduation or any absence are required to submit two copies of official and complete transcripts covering attendance at any other college since the date of last enrollment at the College. A former postbaccalaureate student who is not planning to complete the College's degree, credential or certificate requirements need not submit additional transcripts.

SUMMER SESSION AND EXTENSION REGISTRANTS. Students seeking to enroll for summer session or extension are not required to file official transcripts unless they plan to complete the College's requirements for a degree, credential or certificate.

ADMISSION EXAMINATION

Students who will be entering the College with fewer than 56 transferable semester units completed at regionally accredited colleges are required to take the American College Test (ACT) or the College Entrance Examination Board of Scholastic Aptitude Test (SAT). All other undergraduate applicants, particularly transfers who have mediocre college grade point averages, are urged to take one of these tests if they do not file the results of another recent college entrance aptitude examination with the Admissions and Records Office. Test results will be used as a basis for counseling and, when required, for determining eligibility for admission. Applicants are expected to request the testing service to forward score reports directly to the College. Applicants for admission should take the ACT or SAT not later than February for fall admission, October for winter admission, and December for spring admission.

Registration forms for either test may be obtained from high school and college counselors, or directly from the office of the testing service. American College Test registration arrangements are made by writing ACT Registration Unit, P.O. Box 168, Iowa City, Iowa 52240. The ACT will be given on the following dates:

Saturday, June 17, 1978
Saturday, October 21, 1978
Saturday, December 9, 1978
Saturday, February 10, 1979
Saturday, April 7, 1979
Saturday, June 23, 1979

The Scholastic Aptitude Test (SAT) may be taken at the College or other testing centers throughout the world on the dates listed below:
Admission to the College

Saturday, June 3, 1978    Saturday, January 27, 1979
Saturday, October 14, 1978 Saturday, March 31, 1979
Saturday, November 4, 1978 Saturday, May 5, 1979
Saturday, December 2, 1978 Saturday, June 2, 1979

Applications and fees should be sent directly to the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540, in time to be received not later than four weeks and preferably six weeks prior to the test date selected.

Special institutional administrations of the SAT on additional dates to be announced will be arranged exclusively for applicants to the College. Interested applicants should contact the College Testing Office regarding special institutional administrations.

ENGLISH PLACEMENT TEST

All students subject to degree requirements of 1977-78 and subsequent general catalogs must demonstrate competency in writing skills as a requirement for a bachelor's degree. In addition, all students who enter with fewer than 56 transferable semester units are required to take the CSUC English Placement Test (EPT) so that information can be available to help in the selection of appropriate course work in writing skills and to prepare for meeting the graduation requirement. Failure to take the English Placement Test at the earliest opportunity after admission may lead to administrative probation which, according to Section 41300.1 of Title 5, California Administrative Code, and CSUC Executive Order 186, may lead to disqualification from further attendance. The results of the EPT will not affect admissions eligibility.

Information bulletins and registration materials for the EPT will be mailed to all students subject to these requirements. Alternatively, the materials may be obtained from the Office of Admissions and Records. Information on currently available ways to meet the EPT or the graduation requirement may be obtained from the College Test Office.

HEALTH HISTORY STATEMENT AND EXAMINATION

All admitted students must submit a health history statement. Appropriate forms will be provided all admitted students for submission prior to registration.

CAREER PLACEMENT INFORMATION

The campus may furnish, upon request, information concerning the subsequent employment of students who graduate from programs or courses of study which have the purpose of preparing students for a particular career field. This information includes data concerning average starting salary and the percentage of previously enrolled students who obtained employment. The information provided may include data collected from either graduates of the campus or graduates of all campuses in The California State
University and Colleges. Interested prospective students may request copies of the published information from the Admissions and Records Office.

EVALUATION AND ACCEPTANCE OF CREDIT

The Admissions and Records Office will evaluate previous college work in terms of its relationship to the requirements of the College. Each student seeking a degree will be issued an Evaluation of Transfer Credit which will serve as a basis for determining the remaining requirements for the student's specific objective. The evaluation remains valid as long as the student matriculates at the date specified, pursues the objective declared, and remains in continuous enrollment. The student will not be obligated to meet additional graduation requirements unless such requirements become mandatory as a result of changes in the California Administrative Code.

Because of these regulations, the student should notify the Admissions and Records Office immediately if he changes the degree objective specified in his evaluation. (See Declaration or Change of Degree Objectives.)

While students may follow the specific catalog year degree requirements on which their Evaluation of Transfer Credit is based, they will be held responsible for complying with all changes in other regulations, policies, and procedures which may appear in subsequent catalogs.

ADVANCED PLACEMENT AND CREDIT BY EXAMINATION

The College participates in the Advanced Placement Program of the College Entrance Examination Board. Advanced placement in sequential courses and six semester units of course credit may be awarded to entering students for scores of 3, 4 and 5 on a CEEB Advanced Placement examination. Advanced placement and unit credit also may be awarded for satisfactory scores on the College Level Examination Program (CLEP) General and Subject examinations and the CSUC Equivalency Tests in English, general mathematics, algebra-trigonometry, calculus, statistics, general biology, or general chemistry.

Course credit earned through the College's on-campus Advanced Placement Program for High School Students or from early entrance programs at other colleges will be recognized by the College the same as is regular credit. (See Admission as a First-time Freshman.)

TRANSFER OF CREDIT FROM A COMMUNITY COLLEGE

Transferable courses are defined as those officially certified as baccalaureate-level by the regionally accredited college at which the courses were taken. No upper division credit may be allowed from a two-year college, nor may credit be allowed for professional courses in education.

Credit from two-year colleges is allowed up to a maximum of 70 semester units. Additional lower division courses may be
Admission to the College

completed at a four-year college for full credit, even after 70 units have been earned. Completion of General Education requirements is not required for admission with upper division status.

It is greatly advantageous and frequently imperative to begin some upper division course work, especially that which is applicable to major requirements, soon after 56 semester units are earned. Postponement of transfer usually results in the expense of postponed graduation because a minimum of two years of study is normally required from whichever date upper division course work is started. Simultaneous enrollment at the College for upper division course work and at a two-year college may be approved for any student by the assigned major adviser.

CREDIT FROM NON-ACCREDITED COLLEGES

Courses from institutions of higher learning which are not accredited to offer work leading to the baccalaureate degree by a regional accrediting agency recognized by the U.S. Office of Education and courses from those which are accredited as a "specialized institution" may be accepted for credit toward advanced standing and fulfillment of graduation requirements only if appropriate in purpose, scope, and depth for a baccalaureate degree. Credit allowed from these institutions will be designated as provisional. Regular credit may be granted upon adviser recommendation, department endorsement, and completion of 24 semester units at the College with a 2.0 (C) grade point average or better.

Students with a degree from such an institution may have their educational experience recognized by the College as equivalent to the completion of a baccalaureate degree from a regionally accredited institution upon adviser recommendation, department endorsement, and completion of 12 units at the College with a grade point average of 3.0 (B) or better or completion of 24 units with at least a 2.5 (C+) grade point average.

COURSE WORK COMPLETED TEN YEARS BEFORE ENROLLMENT

Course work completed ten years before enrollment at the College is designated provisional credit, primarily to alert the student and assigned adviser that course scheduling adjustments may be warranted. Regular credit for this course work will be allowed based on adviser recommendation after satisfactory completion of 24 units at the College.

CREDIT FOR EXTENSION AND CORRESPONDENCE COURSES

The maximum credit for correspondence and extension courses which may be allowed toward the bachelor's degree is 24 semester units.

WORKSHOP CREDIT

Workshop credit does not substitute for course credit in a credential sequence and will not be applied toward the General Education, major, or minor requirements of the College. Such credit may be applied toward a bachelor's degree only as elective units.
Admission to the College

Workshops at the College numbered 4920 to 4929 are open to both undergraduate and postbaccalaureate students. Those numbered 5920 to 5929 and 6920 to 6929 are planned for postbaccalaureate students only. However, when an exception to this enrollment prerequisite is allowed by the instructor for a 6920 to 6929 workshop, elective credit toward a bachelor's degree will be allowed.

CREDIT FOR MILITARY SERVICE

Undergraduate students who have one year of active duty of military service will receive six semester units of credit toward admission and a baccalaureate degree. Courses taken at military service schools if appropriate in purpose, scope, and depth for a baccalaureate degree may also yield credit. Military experience will be evaluated only upon request. Separation papers (DD 214) or form DD 295 verifying such experience must be filed with the Admissions and Records Office before credit will be allowed.

ACADEMIC ADVISEMENT

Upon admission students are referred to an adviser in their declared major field of study or to a general adviser if they are undeclared or are without a Cal State Stanislaus degree objective. Undeclared majors must declare a degree major or another specific educational objective prior to their junior year. Any selection or change of major or minor after admission must be accompanied by an official declaration form. (See Declaration or Change of Degree Objectives.) If students are uncertain as to a choice of major and/or its related vocational goal, they may request from their adviser a referral to the Testing Office.

Although the adviser assists the students in planning their entire educational program, students are considered to be responsible for meeting all course prerequisites and all requirements for their degree or credential. Specific days for academic advising are designated each semester in the Academic Calendar to provide a time for students to consult with their adviser in determining a program of courses for the approaching term. At this conference the student completes a Registration Request form which is a part of the registration process.

Students are prepared for their first advising conference only after they have reviewed appropriate sections of the College catalog, examined course offerings in the Class Schedule, and prepared a Trial Study List including alternatives (found in the Class Schedule). If an Evaluation of Credit form has not yet been issued, any catalog(s) of former college(s) attended and any transcripts not on file at CSCS must also be brought to the conference.

A student intending to enter any of the professions listed below may obtain information about CSCS preprofessional programs from the following sources.
Admission to the College

PREPARATION FOR PREPROFESSIONAL STUDIES

The plan of undergraduate study at California State College, Stanislaus emphasizes a liberal education in preparing for professional or vocational specialization. Students preparing for a professional specialization have opportunities to do so by selecting, in consultation with an appropriate preprofessional adviser, the kind of curriculum that most soundly meets the requirements set by the profession they wish to enter.

PREPROFESSIONAL PROGRAM: MEDICINE, VETERINARY MEDICINE, OPTOMETRY, DENTISTRY, PHARMACY. The majority of students entering medical and dental schools in the United States do so after having acquired a B.A. or B.S. degree at an undergraduate college. Possession of an undergraduate degree is especially worthwhile, since professional schools do not offer liberal arts subjects.

Any undergraduate major is appropriate for a preprofessional student as long as certain basic subject areas are included in the program. For specific requirements of professional schools, the student is urged to consult such special sources as "Medical School Admission Requirements" (a publication of the Association of American Medical Colleges), and the College's Health Sciences Advisory Committee.

Students interested in the health sciences should register with the Health Sciences Advisory Committee as soon as admission to the College is granted. A committee member will then prepare a suggested basic program to supplement advisement by the major adviser. The committee will also compile data on each student and prepare a letter of evaluation to be sent at the student's request in support of an application to professional schools. Registration with the committee does not commit the student to any particular program or career. (See catalog section titled Health Sciences.)

PREPROFESSIONAL PROGRAM: LAW. Applicants for admission to most law schools are expected to have a B.A. or B.S. degree and to have taken the Law School Admission Test. There is no single "prelaw" major required, or in most instances recommended, since the successful study of law is more often related to the ability to grasp and solve difficult intellectual problems and to employ disciplined work habits, than it is to any narrow, specialized field of study.

Several broad objectives of prelegal education are set forth by the Association of American Law Schools. These include the oral and written command of language; an understanding and appreciation of social, political, and economic values, institutions, problems, and frames of reference; and an ability for creative, innovative, critical, and analytical thinking.

Since no one major is mandatory, the student should select one which emphasizes the areas mentioned above (economics, English, history, philosophy, political science, and sociology to name a few). For additional information, the student should consult with the prelaw adviser.
Admission to the College

For additional information, a student should see the bulletins or catalogs of various law schools or the official "Prelaw Handbook," current edition, prepared by the Law School Admission Test Council and the Association of American Law Schools. This handbook may be obtained at most college bookstores or ordered from Educational Testing Services, Princeton, N.J. 08540.

REGISTRATION

Registration is the final step in the matriculation process. When a student has been admitted to the College and has determined which subjects to take, the student should make an appointment to see the adviser during the Academic Advising Period to prepare for registration and obtain the necessary registration forms and instructions. A Class Schedule listing courses offered is available before the Academic Advising Period for each term.

Under the present Computer Assisted Registration system, students may register in person or by mail. It is to the advantage of the student to register as early as possible in the registration period as noted in the Academic Calendar. Late registrants may find themselves handicapped in arranging their programs and must pay a $5.00 late registration fee, as required by State law.

If a student unofficially drops a course or leaves the College without first reporting to the Admissions and Records Office to make the change official, the student may receive grades of U, F, or NC. If the student attends a course without officially adding it, the student will receive no credit for the course.

Students who do not attend the regularly scheduled class meetings during the first week of class after registration may be refused entrance to the class by the instructor. Students are responsible for dropping such classes.
The credential programs of the College are administered by the Dean for Credentials and Graduate Programs. The Commission for Teacher Preparation and Licensing (CTPL) has approved the College's programs leading to the credentials listed below:

<table>
<thead>
<tr>
<th>Credential</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Multiple Subject*</td>
<td>Education</td>
</tr>
<tr>
<td>2. Single Subject</td>
<td>Education</td>
</tr>
<tr>
<td>3. Administrative Services</td>
<td>Education</td>
</tr>
<tr>
<td>4. Reading Specialist</td>
<td>Education</td>
</tr>
<tr>
<td>5. Pupil Personnel Services:</td>
<td>Education</td>
</tr>
<tr>
<td>School Counseling</td>
<td></td>
</tr>
<tr>
<td>6. School Psychologist (program</td>
<td>Psychology</td>
</tr>
<tr>
<td>fulfills Pupil Personnel Services</td>
<td></td>
</tr>
<tr>
<td>requirements)</td>
<td></td>
</tr>
<tr>
<td>7. Clinical-Rehabilitative Services:</td>
<td>Communication Studies</td>
</tr>
<tr>
<td>Language, Speech and Hearing Services</td>
<td></td>
</tr>
<tr>
<td>8. Special Education:</td>
<td>Psychology</td>
</tr>
<tr>
<td>Learning Handicapped</td>
<td></td>
</tr>
</tbody>
</table>

Students seeking additional information about the above-listed credential programs should contact the departments listed and/or obtain a "Handbook of Credential Programs" from either the Division of Education or the Office of the Dean for Credentials and Graduate Programs.

Students seeking Multiple Subjects credentials, Single Subject credentials, or Fifth Year Clear credentials should read carefully the explanations detailed under "EDUCATION" in this catalog. Students are urged to pay particular attention to the application deadlines and criteria for admission to credential programs detailed in that section.

*In addition, a Bilingual/Cross-Cultural emphasis is available for Liberal Studies majors intending to prepare for the Multiple Subject credential. The College is also currently seeking approval from the CTPL for a Bilingual/Cross-Cultural Specialist Credential through the Division of Education.
ACADEMIC STANDARDS

HONOR LIST OF STUDENTS

Each semester the College publishes a list of undergraduate honor students. To qualify for the list, a student during the semester under consideration must (1) register for and earn a minimum of 10 units of graded course work at the College, and (2) achieve a 3.5 (B+) grade point average for all course work attempted at the College.

GRADING SYSTEM

ACADEMIC GRADES

A - Excellent . . . Student has demonstrated a high level of competence in meeting course objectives. Four (4) grade points per unit of credit are awarded; affects progress points in same manner.

B - Good . . . Student has demonstrated a more than satisfactory level of competence in meeting course objectives. Three (3) grade points per unit of credit are awarded; affects progress points in same manner.

C - Satisfactory . . . Student has demonstrated a satisfactory level of competence in meeting course objectives. Two (2) grade points per unit of credit are awarded; affects progress points in same manner.

D - Unsatisfactory . . . Student has demonstrated only a barely passing level of competence in meeting course objectives so that it is not necessary to repeat the course for credit. One (1) grade point per unit of credit is awarded; affects progress points in same manner.

F - Failure . . . Student has not demonstrated a minimally passing competence in meeting course objectives. Credit is not merited. Affects both progress points and grade point calculations; zero progress points and grade points assigned.

CR - Credit . . . Student has demonstrated at least a satisfactory "C" level of competence in meeting course objectives (at least "B" level in graduate courses). Not used in grade point average calculations. Two (2) progress points per unit of credit are awarded (three [3] per unit of credit in graduate courses); grade points are not affected.
NC - No Credit ... Student has not demonstrated minimally satisfactory competence in meeting course objectives. Credit is not awarded. Not used in grade point average calculations but affects progress points calculations; zero progress points assigned.

ADMINISTRATIVE SYMBOLS

U - Unauthorized Incomplete ... The symbol "U" indicates that an enrolled student did not withdraw from the course but failed to complete course requirements. It is for courses graded A-F when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. In courses where the student is graded "CR/NC" use of the "U" is inappropriate and "NC" is used instead. For purposes of grade point average and progress point computation the "U" symbol is equivalent to an "F".

I - Incomplete Course ... Students have not completed course requirements due to reasons beyond their control. Must be made up within the time limit set by the instructor and, in any case, no more than one calendar year following the end of the term in which the grade was assigned. Failure to complete the assigned work will result in an incomplete reverting to a grade of "NC" for grading options 1, 2, 3, and 6; and to a grade of "F" for grading options 4 and 5. (See Grading Options below.) An extension of time may be granted via approved petition. Not used in grade point average or progress points calculation.

RD - Report Delayed ... No grade reported by the instructor. The "RD" symbol may be used in those cases where a delay in reporting of a grade is due to circumstances beyond the control of the student. Symbol will be replaced by an appropriate academic grade as soon as possible. Not used in grade point average or progress points calculation.

W - Withdrawn from Course ... Indicates that the student was permitted to drop the course after the 20th day of instruction with the approval of the instructor and Associate Vice President for Academic Services. It carries no connotation of quality of student performance and is not used in calculating grade point average or progress points. (See Withdrawal from College in Policies and Procedures section of this Catalog.)
Academic Standards

SP - Satisfactory Progress . . . Indicates a term of satisfactory progress in a course or activity which may require more than one term to complete (e.g., master's thesis). Not used in grade point average or progress points calculation.

AU - Audit . . . Enrollment in a class for purposes of instruction only. No credit. Not used in grade point average or progress points calculation.

Prior to Fall Semester 1973, the following grades were also used:

WS - Withdrew, Satisfactory . . No effect on units earned or grade point average.
WU - Withdrew, Unsatisfactory . . 0 grade points (equivalent to grade of "F").
IS - Incomplete, Satisfactory . . No effect on grade point average.
P - Passing . . . No effect on grade point average; indicates achievement of a sufficient portion of course objectives to justify the awarding of unit credit.

GRADING OPTIONS

1. Courses graded exclusively Credit/No Credit.
2. Courses graded A, B, C/No Credit--without the student's option to receive a Credit or No Credit grade.
3. Courses graded A, B, C/No Credit--with the student's option to receive a Credit or No Credit grade.
4. Courses graded A, B, C, D, F--with the student's option to receive a Credit or No Credit grade.
5. Courses graded A, B, C, D, F.
6. Courses graded Credit/No Credit--with the student's option to receive a letter grade.

PROGRESS POINTS

Progress points are for the purpose of determining probation and disqualification at the College and are based on the computation as noted under Grading System above. The "U" is the only Administrative Symbol used in determining progress points.

CREDIT/NO CREDIT GRADING

Any student may elect to be graded on a "Credit/No Credit" (CR/NC) basis in any course approved for credit grading. Courses approved for CR/NC are indicated as such in the Class Schedule.

The student must notify the course instructor in writing of his election of the credit grading system by the Last Day to Add a Course. Request forms are available from instructors or the Admissions and Records Office during the first week of class.

The "Credit" (CR) grade is earned for "C" work or better ("B" or better in graduate courses) as judged by the instructor.
Academic Standards

concerned. "Credit" and "No Credit" (NC) grades will have no effect on grade point average but will affect progress points. Each department determines the maximum number of CR/NC courses applicable to degree requirements, but in no case shall more than one-third of the required upper division or graduate units or courses in a degree program be graded CR/NC. No more than 40 semester units graded on a CR/NC basis, including Winter Term courses but excluding credit from challenge examinations, may be applied toward a baccalaureate degree. No more than 8 semester units of CR/NC may be applied in a given semester toward a baccalaureate degree.

SCHOLARSHIP STANDARDS

For the purpose of determining eligibility for a bachelor's degree, a student must earn and maintain a grade point average of at least 2.0 (C) for his entire college record in all courses at California State College, Stanislaus. Failure to maintain standards of minimum competency will result in either Probation or Disqualification.

GOOD STANDING

A student is in good standing when he is eligible to continue enrollment and is free from academic disqualification and disciplinary suspension and expulsion.

For the purpose of determining a student's eligibility to remain at California State College, Stanislaus (Good Standing), both the quality of performance and progress toward his academic objective shall be considered. Such eligibility shall be determined by means of a Progress Point Scale based on the grade and progress point values of grades mentioned under Grading System.

PROBATION

A student shall be placed on probation if, in any fall or spring semester, he fails to earn twice as many progress points as all units attempted during that term. Each student on probation will be expected to meet with his major adviser to formulate a plan to rectify his academic deficiencies and maintain progress toward a degree.

DISQUALIFICATION

A student shall be disqualified and lose good standing if, while on probation in a fall or spring semester, he fails to earn twice as many progress points as all units attempted during that term or is admitted or readmitted on probation and fails to meet the conditions established at the time of admission.

*The student may also be subject to expulsion, suspension, and/or probation for other causes. See Student Conduct, Rights, and Responsibility in Student Services section of this catalog.
Any student may also be disqualified if, during any semester, fewer cumulative grade points are earned than cumulative units attempted, and the cumulative grade point deficiency is so great that in view of the student's overall educational record it seems unlikely that the deficiency will be removed within a reasonable period.

A student disqualified at the end of Fall Semester is eligible to attend Winter Term. In such cases the effective date of disqualification shall be the last day of the Winter Term.

**SPECIAL ADMINISTRATIVE ACTION**

A student may be placed on administrative-academic probation for any of the following reasons:

1. Withdrawal in two successive terms or in any three terms from more than half of the units for which student is registered as of the end of the fourth week of a semester.
2. Repeated failure to progress toward the stated degree or other program objective, when such failure appears to be due to circumstances within the control of the student.
3. Failure to comply, after due notice, with an academic requirement or regulation which is routine for all students or a defined group of students (e.g., failure to take tests, complete specified course work, etc.).

Notification of such action shall provide the conditions for removal from probation and the circumstances which would lead to disqualification.

Furthermore, a student who has been placed on administrative-academic probation later may be disqualified if:

1. The conditions for removal of administrative-academic probation are not met within the period specified, or
2. The student becomes subject to academic probation while on administrative-academic probation, or
3. The student becomes subject to administrative-academic probation for the same or a similar reason for which the student has been placed on administrative-academic probation previously, although not currently in such status.

Notification of such action shall provide an explanation of the basis for the action.

**REINSTATEMENT AFTER DISQUALIFICATION**

Students who are disqualified may be considered for reinstatement by submission of a Reinstatement Petition to the Coordinator of Academic Advising. However, reinstatement is generally not approved for the semester immediately following disqualification.

A reinstated student who has not been enrolled at the college for one or more semesters must also apply for readmission at the Admissions and Records Office.
Academic Standards

To be reinstated and readmitted, a student must provide before the specified dates listed in the college catalog evidence that future academic performance will be satisfactory.

Reinstated students will be readmitted only if admission quotas permit. Students whose reinstatement petitions are approved will be readmitted on probation only, regardless of the grade point average earned at any other institution.

REPEATED COURSES

Courses may be repeated by undergraduate students and only the most recent grade earned will be used for unit credit and grade points. This policy is effective only for courses repeated during or since Summer 1932. The original enrollment and the repeated effort need not be at the same college if it can be established after faculty consultation, as appropriate, that the courses are equivalent in terms of content and emphases. This provision for repetition is not applicable when a course may be taken additional times for credit.

A student should file a Notification of Repeated Course form at the Admissions & Records Office after the course is repeated.

At admission to the College, the repeated course actions and policies of former institutions will be honored.

ACADEMIC RENEWAL

Courses with unsatisfactory grades either at California State College, Stanislaus or at other colleges may be excluded from credit and grade point consideration if course repetition is inappropriate (e.g., change of major, or courses not offered at CSCS), subject to the following provisions:

1. at least five calendar years have elapsed since the course work was attempted;
2. the student is an undergraduate and has completed at CSCS 15 semester units with a 3.0 (B) grade point average, or 30 semester units with a 2.5 (C+), or 45 semester units with a 2.0 (C);
3. a maximum of one academic year of course work may be disregarded and when such action is taken all work attempted during those terms must be disregarded; similar actions by other institutions would be counted in determining the one year limit.
4. The student must provide evidence that past performance was due to extenuating circumstances and that additional enrollment would be necessary to qualify for a degree if his request were not approved.
5. The permanent academic record will be annotated so that a record of all work remains legible, ensuring a true and complete academic history.
This policy is retroactive. A student must initiate such action using an appropriate petition form; upon approval of the faculty adviser, Coordinator of Academic Advising, and Vice President for Academic Affairs, Admission personnel will implement the policy.

Upon admission to the College, the academic renewal actions and policies of former institutions will be honored.
NOTE: Students are held individually responsible for knowing and complying with these regulations.

GENERAL EDUCATION CREDIT

The Class Schedule, the Winter Term Bulletin, and this Catalog designate the courses offered during 1978-79 at the College which are applicable to General Education requirements. Only courses so designated are approved for credit applicable to General Education. All enrolled undergraduates should therefore refer to the current catalog section entitled General Education, which lists acceptable General Education courses.

CLASS ATTENDANCE

Regularity in attending classes is assumed. Students are allowed no specified number of absences, but legitimate absences for which instructors will make allowances are: illness, accident, death in family, and college activities which the student is obligated to attend. In such cases, the instructor may give the student opportunity to make up the work missed.

Students who do not attend the regularly scheduled class meetings during the first week of class after registration may be refused entrance to the class by the instructor. Students are responsible for dropping such classes.

AUDITORS

Admitted students may register in courses as auditors without credit with permission of the instructor. Enrollment will be permitted only after students otherwise eligible to enroll in the course on a credit basis have had an opportunity to do so. An auditor must pay the same registration fees as other students and may not change his registration to obtain credit after the last day to add a course. A student registered for credit may not change to audit status after the last day to drop a course. An auditor may participate in class activities or take examinations with the instructor's consent. Regular class attendance is expected. An audited course will not be posted on a student's permanent academic record unless he has formally registered for the course and, in the opinion of his instructor, has attended a substantial number of class meetings.

CONCURRENT ENROLLMENT

Any matriculated student pursuing a degree or credential at the College who desires to enroll for a course at another institution or in an extension course at the College must secure prior approval from his major adviser if credit is to be accepted.
Acceptance of credit, however, depends on policies set forth in the catalog section on Evaluation and Acceptance of Credit, and it is the responsibility of the student to find out whether a course taken in concurrent enrollment will be accepted. Application forms are available at the rack across the hall from the Admissions and Records Office.

OFFICIAL PROGRAM LIMITS

A student who wishes to register in excess of 16 units during a fall or spring semester must obtain the approval of the major Department Chair at the time of registration. Four units is the maximum for which a student may enroll during a winter term.

Units taken for Credit by Examination do not count toward excess units; however, concurrent enrollment courses, audited courses, and courses in which a student is making up an incomplete grade are all counted as part of the student's total course load.

When courses in the 5000 series are included, a program normally may not exceed three courses or 12 units. Students with outside responsibilities are advised to reduce their study loads proportionately.

CREDIT BY EXAMINATION

Any student who possesses or through independent study can acquire the ideas and concepts of a course at CSCS can accelerate progress through the College by means of a Challenge Examination. Credit earned in this manner is not treated as part of the student's work load during the regular term and therefore does not require a petition for excess study load.

Credit earned by Challenge Examinations will not be counted toward fulfillment of the College's residence requirement and may not be counted toward the completion of major, minor, and credential requirements except with the express approval of the Major and/or Minor adviser and the appropriate Department Chair. However, both subject and unit credit (unless otherwise specified) will be granted and units counted toward the College's 124 semester unit graduation requirement.

All credit allowed through Challenge Examinations will be ungraded and will be documented in the student's academic record file.

There are presently two types of courses at the College for which a student may receive credit by Challenge Examinations. These examinations are prepared, approved, administered, and evaluated by the appropriate academic department.

CSCS Courses Regularly Offered by Examination

Special course sections for credit by examination may be offered in the Class Schedule by a department. Credit may be earned in these courses by:
Policies and Procedures

1. Enrolling in the course for Credit by Examination during a regular registration period.
2. Taking the Challenge Examination at the time and place specified and passing it at the level deemed satisfactory by the department.

Grades of Credit (CR) or No Credit (NC) will be awarded.

CSCS Catalog Courses

A currently enrolled or formally admitted student who has had special preparation in a given subject and who feels that he has covered the necessary course work may challenge by examination any course currently listed in the CSCS catalog under the following conditions:

1. The student must secure a Request for Credit by Challenge Examination from the Admissions and Records Office, obtain the necessary departmental approvals, pay an examination fee of $3 per semester unit or fraction thereof to a maximum of $10 per course challenge, and file all copies of the completed request with the Director of Testing. Instructions for completing and processing the request are contained in the form.
2. The student must take the Challenge Examination at the time and place specified and pass it at the level deemed satisfactory by the department.

Grades of Credit (CR) or No Credit (NC) will be awarded.

Subject Requirements

Certain specific subject requirements (e.g., U.S. Constitution, State and Local Government, etc.) may be passed by Challenge Examinations under the following conditions:

1. An appropriate course is not offered by the College.
2. Special arrangements must be made with the appropriate department for the preparation of the necessary examination.
3. The student must secure a Request for Credit by Challenge Examination form, secure the necessary approvals, pay an examination fee of $6 and file all copies of the completed request with the Director of Testing.
4. The student must take the Challenge Examination at the time and place specified, and pass it at a level deemed satisfactory by the department.

Subject credit only is granted for this type of Challenge Examination. An appropriate notation certifying completion of the specific requirement will be placed on the student's permanent academic record.

CEEB-AP, CLEP, and CSUC Equivalency Test Programs

Credit by examination may also be secured through the College Entrance Examination Board Advanced Placement (CEEB-AP)
Program, as well as by passing appropriate sections of the College Level Examination Program (CLEP) General and Subject Examinations. In addition, students seeking General Education credit in English, General Mathematics, Algebra-Trigonometry, Calculus, Statistics, General Biology, or General Chemistry may take the California State University and Colleges (CSUC) Equivalency Tests administered in April or May each year. Six semester units of credit are awarded for successfully passing the English test, and three units are awarded for each of the science and mathematics tests.

In individual cases, a limit may be imposed on the number of units of credit which can be earned through Challenge Exams.

Further information concerning these options may be obtained from the Admissions and Records Office or the Office of Testing Services.

INDIVIDUAL STUDY COURSES

Individual study courses are available in certain fields to a student who has demonstrated capacity for independent study and superior ability in regular course work in those fields at the College. A total of six units of individual study credit, excluding course work taken in Winter Terms, is the maximum permitted toward a degree, credential, or other educational objective. These courses are numbered 4980, 5980, and 6980 following the subject field prefix. Individual study courses are not offered to cover the content of a course already part of the College's regular program of instruction even though the course may not be offered every term.

A student seeking to enroll for an Individual Study course must at registration file the original copy of an approved Request for Course by Individual Study form. The second copy is to be filed with the department concerned. Request forms are available at the Admissions and Records Office forms rack. The request for individual study must be approved by the student's individual study instructor, major adviser, and the department chair concerned who will retain a copy of approved requests. Approvals should be obtained during the advising for registration period indicated in the Academic Calendar.

SEQUENCE COURSES

No student will be able to take a sequence course for credit which is below the level of a course for which credit was received in the past.

POSTBACCALAUREATE CREDIT

All courses taken during the term in which a student earns his degree that are not needed to fulfill degree requirements will, upon the approval of the Request for Postbaccalaureate Credit form, be indicated on his permanent academic record as acceptable postbaccalaureate credit. Students graduating Spring Semester may also request to have the preceding Winter Term course included as postbaccalaureate credit if not used for degree requirements. Students graduating Winter Term may also request to have any Fall Semester courses included as postbaccalaureate credit if not used.
for degree requirements. Request forms are obtained from and filed with the Admissions and Records Office.

**DECLARATION OR CHANGE OF EDUCATIONAL OBJECTIVES**

A student who selects or changes the degree objective at the College after admission must file a Declaration or Change of Degree Objective form with the Admissions and Records Office. To officially change and/or declare a degree objective, all appropriate signatures must be obtained on the form. Students admitted to a credential program will have their names submitted to the Admissions and Records Office by the Division of Education. Juniors and seniors must officially declare a degree major at the College or other specific educational objective.

**ADDING AND DROPPING COURSES**

No courses may be added or dropped unless submitted on official forms, properly signed and accepted at the Admissions and Records Office during the regular add or drop period. Unauthorized dropping of a course will result in a final grade of U, F, or NC. A student may not drop a course during the term except as subject to the following regulations:

1. A course may be dropped if an approved Program Change card is filed in the Admissions and Records Office on or before the last day to drop a course as shown in the Academic Calendar.

2. A student may not drop a course after the 20th day of instruction (third day of instruction during Winter Term) as shown in the Academic Calendar except when approved by the Coordinator of Academic Advising for serious or compelling reasons, i.e., accident or serious illness where the cause of withdrawal is shown to be clearly beyond the student's control. Permission to drop a course after this deadline requires the following statements and approval on the "Request to Drop Course with W Grade" form.
   a. A statement of the serious or compelling reasons with supporting evidence.
   b. Report of the course instructor on the student's academic performance to date and recommendation (if any).
   c. Notification of the student's adviser, allowing him the opportunity to provide pertinent information, if any, concerning the student's dropping a course.
   d. Approval of the Coordinator of Academic Advising.

Students may add courses by filing an approved Program Change card in the Admissions and Records Office not later than the last day to add a course, as shown in the Academic Calendar.
LEAVE OF ABSENCE

A student withdrawing from the College who will not be registered for any of the terms of an entire academic year may for reasons beyond his control (i.e., compulsory military duty, medical, etc.) request a "leave of absence" to protect his right to degree or credential requirements which were fixed at the time of admission to the College or admission to a degree or credential program. This Request for Leave of Absence form is obtained from and filed with the Admissions and Records Office. Granting a "leave of absence" to a student does not guarantee readmission to the College nor exempt him for the regular application for readmission procedure and filing dates.

PLANNED STUDENT LEAVES

A Planned Student Leave is an interruption of a student's formal education in which he voluntarily ceases his enrollment at the College to pursue other educationally related activities to complete or enrich his academic program or to clarify his educational goals. The intent of this program is to make it possible for a student to suspend his academic work, leave the campus, and later resume his studies with a minimum of procedural difficulty. It is not intended for a student who only wishes to attend another institution. Planned Student Leave request forms are available from the Admissions and Records Office. Enrollment at another institution of higher education during a Planned Student Leave is subject to advance Concurrent Enrollment approval.

1. Eligibility

Any enrolled student is eligible to request a Planned Student Leave. Newly admitted students who have not yet registered are also eligible; the primary intent in such instances being to provide an opportunity for beginning students to pause between high school and college, or between community college and four-year college enrollment.

2. Requests for Approval

a. Each Planned Student Leave request must include a stated intent to reenroll at the College within a specified period, and a plan for how the time is to be used in relation to an educational objective. Acceptable requests will be those for planned travel, national service (Peace Corps, Vista), study, or other specific plans which will contribute to the student's educational objectives.

b. The request must be filed prior to the period of absence and is subject to the approvals of the student's assigned academic adviser, department chairman, and the Registrar.
Policies and Procedures

c. Educational leaves may begin at any time. However, if a student chooses to begin a leave while he has course work in progress the student is subject to all normal regulations and clearances (e.g., official withdrawal, financial aid termination, etc.).

3. Duration of Leave

A typical Planned Student Leave will be for one academic year. A student may request, in writing, an extension of his leave prior to its termination. Under no circumstances shall successive leaves exceed two calendar years.

4. Return Responsibilities and Benefits

A student returning from an approved educational leave is required to submit an application for readmission but will not be required to pay another application fee or submit to residency and health screening if terms of the leave have been satisfied. A returning student must specify on his application that he is returning from an approved leave. Readmission is guaranteed providing the readmission application is filed according to the following schedule: Fall, November; Winter and Spring, August—or 30 days after leave approval, whichever is later. A student will be guaranteed his normal registration priority and rights to prior graduation requirements provided leave terms are fully met and proper return procedures are followed.

5. Student Record Entry

Each student enrolled in this program will have an entry made in his records indicating that he is on a planned student leave. The dates of the beginning and conclusion of the leave will also be recorded.

6. Compliance

A student on a Planned Student Leave who does not comply with the provisions of this policy and the conditions of the leave is subject to forfeiture of the advantages of this program.

WITHDRAWAL FROM COLLEGE

A student may withdraw from the College through the 20th day of instruction (through the 3rd day for Winter Term) without having any administrative symbol recorded by filing an approved Withdrawal Card in the Admissions and Records Office. A student who withdraws from the College is deemed to be fully responsible for such action and is not eligible for readmission to the College prior to the beginning of the next term. An Application for Readmission must be filed in order to register for a future term. A student who takes unauthorized leave may receive a final grade of U, F, or NC in each course for which he was registered.
Policies and Procedures

Students who officially withdraw by the last day to file for a partial refund of fees will have their refund automatically mailed to the address indicated on the Withdrawal Card. (See Refund Regulations.)

Withdrawals after the 20th day of instruction (3rd day for Winter Term) are permissible only for serious and compelling reasons, i.e., reasons clearly beyond the student's control. Permission to withdraw during this period requires the following statements and approval on the "Request to Drop Course with W Grade" form:

a. A statement of the serious and compelling reasons with supporting evidence.
b. Report of the course instructor on the student's academic performance to date and recommendations (if any).
c. Notification of the student's adviser, allowing the opportunity to provide pertinent information concerning the student's withdrawal (if any).
d. Approval of the Coordinator of Academic Advising.

Upon approval, a "W" will be assigned. The "W" carries no connotation of quality of student performance and is not used in grade point average or progress points calculation.

Withdrawals shall not be permitted during the final three weeks of instruction except in cases such as accident or serious illness where the cause of withdrawal is due to circumstances clearly beyond the student's control and the assignment of an incomplete is not practicable. Written approval is required by the Coordinator of Academic Advising.

INCOMPLETE WORK

An incomplete (I) signifies that a portion of required course work has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons beyond the student's control and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements which must be satisfied to remove the incomplete. The conditions for removal of the incomplete shall be put in writing by the instructor and given to the student with a copy placed on file with the Department Chair. A final grade will be assigned when the work agreed upon has been completed and evaluated.

An incomplete must be made up within the time limit set by the instructor and, in any case, no more than one calendar year following the end of the term in which the incomplete was assigned. This limitation prevails whether or not the student maintains enrollment. Failure to complete the assigned work will result in an incomplete reverting to a grade of NC for grading options 1, 2, 3, and 6, and to a grade of F for grading options 4 and 5. (See Class Schedule for grading options.)
Policies and Procedures

In cases of prolonged illness or any emergency which necessitates an extension of time to complete the course, the student may petition through the Associate Vice President for Academic Services. Students may not be permitted to graduate until all incompletes are removed. A student is not to reregister in a course in which he has an incomplete.

SATISFACTORY PROGRESS WORK

The "SP" (Satisfactory Progress) 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. Cumulative enrollment in units attempted may not exceed the total number applicable to the student's educational objective. Work is to be completed within one year except for graduate degree theses for which the time may be up to two years, but may not exceed the overall time limit for completion of all Master's degree requirements. Any extension of time limit must receive prior authorization by the Coordinator of Academic Advising.

STUDENT CLASSIFICATIONS

Class level:
- Freshman . . . 0-29\(\frac{1}{2}\) acceptable completed semester units
- Sophomore . . . 30-59\(\frac{1}{2}\) acceptable completed semester units
- Junior . . . . 60-89\(\frac{1}{2}\) acceptable completed semester units
- Senior . . . . 90 or more acceptable completed semester units
- Graduate . . . Possesses acceptable baccalaureate or advanced degree

Admission status:
- General . . . . . Met all admission requirements
- Probational . . . Admitted with scholastic deficiency
- Conditional . . . Permitted to register pending official verification of admission status
- Extension . . . . Permitted to register for extension course work only
- Summer . . . . . Permitted to register for summer session course work only
- Visitor . . . . . Permitted to register for a single term only

Registration status:
- Continuing . . . . Student enrolled in last semester
- Former . . . . . . Returning student who registered in a previous term but not the last semester
- New . . . . . . . . Student who is registering in a regular term for the first time
Policies and Procedures

Full- and part-time students:

Undergraduate Classification

All undergraduates are classified as full- or part-time according to the unit totals listed below:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Fall/Spring Units</th>
<th>Winter Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>10.0 or more*</td>
<td>3.0 or more*</td>
</tr>
<tr>
<td>3/4</td>
<td>7.0 - 9.5</td>
<td>2.0 - 2.5</td>
</tr>
<tr>
<td>1/2</td>
<td>5.0 - 6.5</td>
<td>1.5</td>
</tr>
<tr>
<td>1/4</td>
<td>4.0 - 4.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Less than 1/4</td>
<td>.5 - 3.5</td>
<td>.5</td>
</tr>
</tbody>
</table>

Note: 1. During the Fall and Spring semesters these classifications also apply to postbaccalaureate students enrolled for less than 4 units of course work applicable to any graduate program.

2. During Winter Term these classifications apply to postbaccalaureate students enrolled for less than 2 units of course work applicable to any graduate program.

Graduate Classification

Postbaccalaureate students enrolled for 4 or more units of course work applicable to a graduate program are classified as full- or part-time according to the unit totals shown below. Students must enroll for 2 or more units applicable to a graduate program during Winter Term to be classified in this category.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Fall/Spring Units</th>
<th>Winter Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>7.0 or more*</td>
<td>2.0 or more*</td>
</tr>
<tr>
<td>3/4</td>
<td>5.5 - 6.5</td>
<td>NA</td>
</tr>
<tr>
<td>1/2</td>
<td>4.0 - 5.0</td>
<td>NA</td>
</tr>
<tr>
<td>1/4</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Less than 1/4</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

GRADE REPORTS TO STUDENTS

A report of final grades in all courses will be sent to the mailing address of a student after the conclusion of each semester, term, and summer session. Units may not in all cases reflect exact totals, i.e., grade changes, clearance of incompletes, repeated courses, etc.

*Other agencies (i.e., U.S. Immigration Office, etc.) have the prerogative to define full-time to meet their particular requirements.
Policies and Procedures

CHANGE OF ADDRESS

A student who changes his mailing or permanent address after admission or registration should immediately notify the Admissions and Records Office. This information is needed in order to insure registration information, grades, correspondence, and other such material reach the student without unnecessary delay. The United States postal service also should be immediately notified of changes in mailing address.

TRANSCRIPTS

Official transcripts of courses attempted at the College are issued only with the written permission of the student concerned. Partial transcripts are not issued. A fee of $1 for each transcript issued must be received before the record can be forwarded. Transcripts from other institutions which have been presented for admission or evaluation become a part of the student's permanent academic file and are not returned or copied for distribution. Students desiring transcripts covering work attempted elsewhere should request them from the institutions concerned.

PETITIONS

Students may petition for waiver of certain college-wide academic requirements or for review of decisions affecting their academic status. Petition forms and information concerning regulations may be secured from the Admissions and Records Office. All such petitions must be reviewed and signed by the student's major adviser and/or instructor, as appropriate, before being filed with the Admissions and Records Office.

A petition concerning a departmental major, minor, or other requirement should be directed to the appropriate department.

Petitions concerning reinstatement after disqualification are to be filed directly with the major adviser for a recommendation before being filed with the Admissions and Records Office.
FEES AND REFUNDS

Fees are established in accordance with State laws and the regulations of The Trustees of The California State University and Colleges and are subject to change as prescribed by law, without prior notice. Auditors must pay the same fees as students enrolled for credit.

Total registration fees for California residents are approximately $190.00 per academic year ($83.50 per semester; $23.00 for Winter Term). Total registration fees and tuition for non-residents are approximately $1,900.00 per academic year ($824.50 per semester; $251.00 for Winter Term).

REGISTRATION FEES

Payable at time of registration. No individual can be admitted to class prior to payment of all required fees.

Student Services Fees:

0.0 to 6.0 Units ................................................. $48.00
6.1 Units or more ................................................. 63.00
Winter Term ................................................... 18.00

Associated Student's Fees:

Regular Students (6.1 Units or more)

Regular Students--Fall Semester .................................. 9.00
Winter Term ..................................................... 2.00
Spring Semester ................................................ 9.00

Limited Students (1.0 to 6.0 Units)

Fall Semester ................................................... 4.50
Winter Term ..................................................... 2.00
Spring Semester ................................................ 4.50

Summer Session .................................................. 2.00

Except that no student shall be required to pay an aggregate amount in excess of $20 for the entire year

College Union Fees:

Regular Students--Each Semester .................................. 9.00
Limited Students--Each Semester .................................. 4.50
Winter Term ..................................................... 2.00
Summer Session .................................................. 4.00

Health Facility Fee--Each Semester ................................ 2.50
Winter Term ..................................................... 1.00
Fees and Refunds

OTHER FEES AND CHARGES (in addition to registration fees)

IRA Fee (Instructionally Related Activities) not to exceed 10.00

Nonresident tuition including foreign nonresident:

For the first 12 units (per unit or fraction of unit) .... 57.00
For the 13th unit and over (maximum) per Semester ... 741.00
(The total amount of nonresident tuition charged shall not exceed $1,710 per academic year.)

Application Fee (nontransferable & nonrefundable) .... 20.00
Late Registration Fee (nonrefundable) ................. 5.00
Graduation Fee ........................................... 10.00
Check returned from bank for any cause ............... 5.00
Transcript of Record ................................... 1.00

Failure to meet administratively required appointment or time limit .... 2.00
Replacement of equipment or materials lost or damaged ............................................... Cost of Item
Library books or materials lost or damaged ............ Cost plus $1.00
Summer Session-per unit .................................. 37.00

Extension Courses-per unit:
Lecture and Discussion Courses .......................... 37.00

Parking Fees
Nonreserved spaces, autos:
Regular students, per semester ......................... 13.00
Winter Term ............................................... 4.00
Reserved spaces, per month or major fraction thereof 8.00
Two-wheeled, self-propelled vehicles licensed by State Department of Motor Vehicles, per semester . 25% of above
Alternate vehicle (auto) in addition to fee for first vehicle, per semester ................... 2.00
Alternate, two-wheeled vehicle, per semester .......... 2.00

No fees of any kind shall be required of or collected from those individuals who qualify for such exemption under the provisions of the Alan Pattee Scholarship Act.

NONRESIDENT STUDENTS

The nonresident tuition fee is payable by all students who have not been legal residents of the State of California for at least one year immediately preceding the opening of the school term.

Tuition payable by nonresident and foreign visa students is in addition to fees required of resident students, except for enrollment in extension or summer session.

The nonresident tuition fee will not be required of a student who is the child or spouse of an academic or administrative employee of The California State University and Colleges.

Questions regarding residency classification for admission eligibility and tuition purposes should be directed to the Residency Clerk in the Admissions and Records Office.

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Fees and Refunds

No tuition fee shall be required of any nonresident student who is a full-time employee of The California State University and Colleges or who is the child or spouse of an employee of The California State University and Colleges.

Certain certificated full-time employees of a California School District are deemed to be resident students.

Initial determination of residence status is made by College officials prior to or at the time of registration, and fees must be paid at registration. Full refund of nonresident fees paid will be made if final determination by the College's legal adviser indicates that a student is a legal resident.

REFUND REGULATIONS

Fees may be refunded only as authorized by Sections 41802, 41803, and 41913 of Title 5, California Administrative Code. Whether a fee may be refunded and the circumstances under which a fee or any part of a fee may be refunded, vary depending on the particular fee involved. Requirements governing refund may include such matters as the reason for seeking a refund (for example, death, disability, compulsory military service), the number of days of instruction which have elapsed before application for refund is made (for example, requests for refund of student services fees, student body organization fees, and student body center fees must be made no later than 14 days following the commencement of instruction and requests for refund of extension course tuition fees must be made prior to the fourth meeting of the class), and the degree to which the campus has provided the services for which the fee has been charged.

Written application for refund of fees must be made on the Withdrawal Card available from the Admissions and Records Office. To receive a partial refund, the completed Withdrawal Card must be received in the Admissions and Records Office not later than the 14th calendar day following the first day of instruction.

Upon official withdrawals from the College by the stated refund deadline, the State will refund the total fees paid less $5.00.

For each unit of nonresident fee charged, the State will refund the entire fee charged during the first week of each semester; thereafter 75% will be refunded the second week, 50% the third week, 25% the fourth week. There will be no refund after the fourth week.

STUDENT SERVICES FEE

A Student Services Fee was established by the Board of Trustees of The California State University and Colleges in January 1975. Previously, this fee was known as the Materials and Service Fee.

The student services fee provides financing for the following student services programs not covered by state funding:

1. Social and Cultural Development Activities: provides for the
Fees and Refunds

coordination of various student activities, student organizations, student government, and cultural programs.
2. Counseling: includes the cost of counselor's salaries and clerical support plus operating expenses and equipment.
3. Testing: covers the cost of test officers, psychometrists, clerical support, operating expenses, and equipment.
4. Placement: provides career information to students and faculty for academic program planning and employment information to graduates and students.
5. Financial Aids Administration: includes the cost of the counseling and business services provided in connection with the financial aid programs.
6. Health Services: provides health services to students and covers the cost of salaries of medical officers and nurses plus related clerical and technical personnel as well as operating expenses and equipment.
7. Housing: includes the cost of personnel providing student housing information and monitoring housing services.
8. Student Services Administration: covers 50% of the cost of the Dean of Students Office which has responsibility for the overall administration of student services.

ALAN PATEE SCHOLARSHIPS

Children of deceased public law enforcement or fire suppression employees, who were California residents and who were killed in the course of law enforcement or fire suppression duties, are not charged fees or tuition of any kind at any California State University or College, according to the Alan Pattee Scholarship Act, Education Code Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Admissions/Registrar's Office, which determines eligibility.

DEBTS OWED TO THE INSTITUTION

From time to time the student may become indebted to the institution. This could occur, for example, when the student fails to repay money borrowed from the institution. Similarly, debts occur when the student fails to pay institution, dormitory, or library fees, or when the student fails to pay for other services provided by the institution at the request of the student. Should this occur, Sections 42380 and 42381 of Title 5 of the California Administrative Code authorize the institution to 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. For example, under these provisions the institution may withhold permission to register, and may withhold other services, such as grades and transcripts. If a student believes that he or she does not owe all or part of a particular fee or
Fees and Refunds

charge, the student should contact the campus business office. The business office, or another office on campus to which the student may be referred by the business office, will review the pertinent information, including information the student may wish to present, and will advise the student of its conclusions with respect to the debt.

AVERAGE ANNUAL COSTS AND SOURCES OF FUNDS PER FULL-TIME EQUIVALENT STUDENT

The 19 campuses of The California State University and Colleges are financed primarily through funding provided by the taxpayers of California. For the 1977-78 year, the total cost of operation is $825 million, which provides continuing support for 236,370 full-time equivalent (FTE*) students. This results in an average cost per FTE student of $3,491 per year. Of this amount, the average student pays $297. Included in this average student payment is the amount paid by nonresident students. The remaining $3,194 in costs are funded by state and federal taxes.

Averages do not fit all students alike or even any specific student. To arrive at an average figure that is meaningful, the costs outlined above exclude "user fees" for living expenses, housing, and parking, as well as costs for extension and summer session work. Computations are based on full-time equivalent students, not individuals, and costs are prorated by system totals, not by campus. The average costs for a full-time equivalent student in the system are depicted in the following chart:
### Fees and Refunds

**1977/78 PROJECTION OF TOTAL COSTS OF CAMPUS OPERATION**  
( Including Building Amortization)

Projected Enrollment: 236,370 FTE

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Average Cost Per Student (FTE*)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Approp. (Support)</td>
<td>$671,764,609</td>
<td>$2,842</td>
<td>81.4%</td>
</tr>
<tr>
<td>State Funding (Capital Outlay)**</td>
<td>36,360,246</td>
<td>154</td>
<td>4.4%</td>
</tr>
<tr>
<td>Student Charges</td>
<td>70,247,936</td>
<td>297***</td>
<td>8.5%</td>
</tr>
<tr>
<td>Federal (Fin.Aids)</td>
<td>46,732,894</td>
<td>198</td>
<td>5.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$825,105,685</strong></td>
<td><strong>$3,491</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

*For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load. The term assumes that a full-time student in The California State University and Colleges is enrolled for 15 units of academic credit. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

**The system's wide range of facilities and equipment on the 19 campuses is currently valued at approximately $1.4 billion, excluding the cost of land. Amortized over a 40-year period, they are valued at $154 per FTE student.

***The average costs paid by a student include the student services fee, health facilities fee, college union fee, student body fee, and the nonresident tuition. This amount is derived by taking the total of all student fees and dividing by the total full-time equivalent student enrollment. Individual students may pay more or less than $297 depending on whether they are part-time, full-time, resident or nonresident students.
STUDENT SERVICES

The Student Services Office is established to meet student needs and offer assistance so that all students may fully benefit from the educational program. Specific services are listed on the following pages and completely described in the Student Handbook.

ADULT REENTRY PROGRAM

This program is a general advisory service for adults who have been out of school for an extended time and wish to return in order to continue their education. The program has as its objectives the provision of such services as orientation to the college environment, preadmission academic advising and assessment, counseling and testing services, assistance with admission procedures, career-planning, peer counseling, and continuing support and encouragement through the medium of Goals and Values Clarification and Group Discussion.

CAMPUS TUTORIAL PROGRAM

A program of Tutorial Services is coordinated by the Student Services Office. These services are designed to assist students with difficulties which they may be having in specific courses. Students requiring tutorial assistance are matched, whenever possible, with either a student tutor (usually an upper division major in the discipline) or a faculty member in the appropriate department. The student (tutee) assumes the responsibility for working out mutually satisfactory meeting arrangements (time and place) with the tutor.

Except in cases of demonstrated financial hardship, the student is expected to pay the cost of tutorial assistance. The current rate is $3.00 per hour. Financial questions may be discussed with the Coordinator on an individual basis.

CAREER PLANNING AND PLACEMENT

A career decision may require considerable individual effort expended over a long period of time. Therefore, freshman and sophomore students are encouraged to use the facilities of the Career Planning and Placement Center, located in the Library, Room 102. Interest inventories, ability, personality testing, and counseling are among the techniques available to students who wish assistance in evaluating their strengths and weaknesses. A Career Library provides information as to potential career choices. In addition, staff members are glad to assist with the
development of a resume, and in organizing a personal information file. Procedures regarding the actual job search, including application forms and interviewing techniques, are dealt with when appropriate.

The Placement Center serves as liaison with employers throughout the area who seek full-time personnel. A number of such employers schedule campus interviews during the year and others are willing to see prospective employees at their plant or office. In addition, the Placement Center maintains announcements of openings in teaching, business, and government—both in the immediate area and statewide. The complete list of these openings is filed in the Placement Library. Special announcements and current career information of interest to all students are publicized in the student newspaper, The Signal; the weekly Campus Digest, and the Placement bulletin board, adjacent to the Career Planning Center. Announcements are also sent to academic departments, as appropriate.

In order to utilize effectively the services available in Career Planning and Placement, students are encouraged to visit the center regularly.

**COMPASS PROGRAM**

COMPASS is a series of workshops designed to help students define life direction, develop life goals, learn or improve skills needed to achieve such goals, and experience personal growth or resolve personal difficulties.

There are no grades given, no tests, no required papers, and no academic credit. Workshops are short term, meeting approximately five or six weeks for one hour sessions in the fall and spring semesters. Workshop titles include Career and Life Planning, Implementing Career Decisions (job search techniques), Assertiveness Training, and College Study Techniques. Additional information is available from the Student Services Office, Room L-102.

**COUNSELING**

Counseling services assist students with concerns related to interpersonal relationships (including marriage and family), emotional well-being, career and life planning, drugs, and any other concerns of a personal nature. In addition, students may receive assistance with study skills to improve their academic ability and increase their confidence. Skilled counselors are available to talk with students on a voluntary and confidential basis, without charge.

Students may drop in and make an appointment in the Student Services Office, Room L-102.

**DISABLED STUDENT SERVICES**

The objective of this program is to make specialized assistance and resources available to physically handicapped students, enabling them to achieve their educational and vocational goals.
Student Services

Individualized services are designed to fulfill each student's unique needs in terms of achieving and maximizing independence. Program services may include assistance with registration, special parking privileges, and orientation to the campus. Assistance is offered when required in securing housing, transportation, tutors and/or notetakers, and in maintaining liaison between the student and other college offices and/or community agencies.

EDUCATIONAL OPPORTUNITY PROGRAM

This combination of federal and state funded programs offers special services to (1) students from "disadvantaged backgrounds" who are not eligible according to regular admission standards or who are "borderline" eligible and need special assistance, or (2) attending students who meet financial criteria and are in need of support services. Various services are provided including tutoring, study skills, counseling, developmental English, advising, core courses, etc. Some supplemental state financial aid money may also be available to EOP students who are qualified. A prospective EOP student should (1) contact the campus EOP Office before or at the time of admission application, and (2) file an admission application form in the initial filing period under regular admission procedures.

FACILITY RESERVATION

Reservation of campus facilities, except for regularly scheduled classroom activities, must be done through the Office of the Dean for Academic Resources. Only chartered student clubs, the ASCSCS, and other recognized college groups may use college facilities. Consult the policy on "Use of Campus Facilities" and "Policy on Special Events" in the office for details.

FINANCIAL AIDS

The Financial Aid Office administers federal and state financial aid programs available to qualified students to help them meet their educational expenses. New students who wish to be considered for financial assistance should submit the "Request for Financial Aid Application Materials" from the Common Admission Application. All applicants must complete the Financial Aid Form (FAF) and the Student Aid Application for California (SAAC). The Financial Aid Office will request additional information upon receipt of the FAF and SAAC. Application deadlines are observed, and students are encouraged to complete their applications as early as possible since available funds are limited.

Financial Aid programs available to qualified students are:

NATIONAL DIRECT STUDENT LOAN (NDSL) - The NDSL is a federal program providing long-term, low-interest loans in amounts governed by established eligibility and availability of funds. Three percent simple interest and repayment of the loan begins nine months from the date the borrower ceases to maintain at least half-time enrollment. In some cases deferment of payment or full forgiveness of the loan and interest may be possible.
FEDERALLY INSURED STUDENT LOAN (FISL) PROGRAM - Loans are made available to full-time students through private lending institutions such as banks, savings and loans, or credit unions. Repayment of the loan and seven percent simple interest is deferred until nine months from the date the borrower ceases to maintain at least half-time enrollment. Further information and application materials are available at the Financial Aid Office.

COLLEGE WORK-STUDY PROGRAM - Eligible students may be able to work on or off campus to earn all or a portion of their financial aid awards.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG) - These awards are federally-funded and are granted to undergraduate students who demonstrate exceptional financial need. This grant may not exceed one-half of a student's total financial aid award.

LAW ENFORCEMENT EDUCATION PROGRAM (LEEP) - The Law Enforcement Education Program makes available grants for fees and books each semester to full-time employees of law enforcement agencies.

BASIC EDUCATIONAL OPPORTUNITY GRANT (BEOG) - The Basic Grant is a federally-funded program available to qualified undergraduate students. Based on eligibility, the grant may not exceed one-half of the cost of education. Applications are available from high school counselors and college financial aid offices.

STATE EDUCATIONAL OPPORTUNITY PROGRAM GRANT - Students who are admitted to the college under the Educational Opportunity Program and who have financial need may be funded under this state program.

STUDENT ASSISTANT PROGRAM - This work program is funded through the state budget and is administered by the various academic departments on campus.

EMERGENCY LOAN FUND - Emergency loans to meet educational expenses are available to enrolled students. A maximum of $50 may be borrowed with repayment in forty-five days.

Students interested in more information regarding financial aid programs or application procedures should inquire directly to the Financial Aid Office, Room L-109, California State College, Stanislaus.

HEALTH SERVICES

All admitted students must submit a health history statement. It is not mandatory but strongly recommended that all admitted students obtain a complete physical examination prior to entrance, particularly those who will be involved in intercollegiate athletics.

The College maintains a Health Center in Room 117 of the Classroom Building, which is staffed by a full-time family nurse practitioner under the direction of a physician who is medical
Student Services

director, and a full-time registered nurse. In some cases referral may also be made to local community doctors or hospitals. These services are provided as part of the student health fees and include emergency outpatient care for injury and acute illness; transportation; necessary lab tests and X-rays. Any off-campus referrals are usually limited to one visit under the policy.

SUPPLEMENTAL HEALTH INSURANCE - The very basic emergency outpatient service described above should be supplemented by an individual policy of the student or his parents. The College does offer a group policy which is available on the student's request. The cost is nominal and provision can be made for dependents.

HOUSING

There is a wide variety of housing including an on-campus coeducational residence hall, 700 private apartments within one block of campus, and various homes for rent and "live-ins." The residence hall includes lounges for study and TV, a cafeteria, a swimming pool, volleyball and basketball courts. The Housing Office located in Room L-102 lists all available housing and also can arrange for roommates if needed. The Housing Office also handles complaints for students who are having problems with deposits, rental rates, conflicts with managers, etc.

INTERNATIONAL PROGRAMS

The California State University and Colleges (CSUC) offers opportunities for students to pursue their studies at a distinguished foreign university or special program center. Under the auspices of the CSUC Office of International Programs, participants in this program are concurrently enrolled at their home campus, where they earn academic credit and maintain campus residency, and at an overseas institution of higher education.

Cooperating universities abroad include the University of Provence, France; the Universities of Heidelberg and Tübingen, Germany; the Hebrew University of Jerusalem in Israel; the University of Florence, Italy; the Universidad Ibero-Americana, Mexico; the Universidad católica, Peru; the Universities of Granada and Madrid, Spain; the University of Uppsala, Sweden; Lincoln University College of Agriculture and Massey University, New Zealand; and Waseda University of Japan. In the United Kingdom, cooperating universities (which may vary from year to year) include, among others, Aberdeen, Dundee, Edinburgh, Bangor, Heriot-Watt, Leicester, London, Manchester, Nottingham, Oxford, Liverpool, Lampeter, Sheffield, and Strathclyde. In addition, CSUC students may attend a special program in Taiwan, Republic of China, or an architecture program in Copenhagen, Denmark.

Eligibility for application is limited to those students who will have upper division or graduate standing by September 1979 at a CSUC campus; who have demonstrated the ability to adapt to
a new cultural environment; and, who, in the cases of France, Germany, Mexico, Peru, and Spain, will have completed at least two years of college-level study in the language of instruction at the host university, or possess equivalent knowledge of the language. At the time of application, students must have a minimum cumulative grade point average (g.p.a.) for all college-level work of 2.5, except for the programs in Israel, New Zealand, Peru, and the United Kingdom where a minimum g.p.a. of 3.0 is required. Selection is competitive and is based on home campus recommendations and the applicant's academic record. Final selection decisions are made by a statewide committee of faculty members, except for the programs in New Zealand and the United Kingdom where final selections are made by the respective host universities.

The International Programs supports all tuition and other academic and administrative costs overseas for each of its participants to the same extent that such funds would be expended to support similar costs in California. Students assume costs for predeparture orientation, insurance, transportation, housing, and meals. Home campus registration and other fees and personal incidental expenses or vacation travel costs while abroad are also paid by the student. Nonresident students are subject to nonresident fees. The Office of International Programs collects and administers funds for those items which the program must arrange or can negotiate more effectively, such as home campus fees, orientation costs, insurance, outbound transportation, and, in some centers, housing. International programs participants may apply for any financial aid available at their home campuses, except for campus work-study.

Applications for the 1979-80 academic year must be submitted before February 9, 1979, except for New Zealand and the United Kingdom. Applications for the New Zealand program must be submitted by May 11, 1979, for participation during calendar year 1980. (The academic year in New Zealand begins in February and ends in October.) United Kingdom applications must be submitted by January 5, 1979.

Detailed information and application materials may be obtained from Dr. Gerhard Mack, Room L-112L; further information may also be obtained by writing to The California State University and Colleges International Programs, 400 Golden Shore, Suite 300, Long Beach, California 90802.

INTERNATIONAL PROGRAMS COURSES

Students enrolled at California State College, Stanislaus under the California State University and Colleges International Study Programs register concurrently at Cal State Stanislaus and at the host institution abroad. Credit for work taken abroad is in terms of Stanislaus courses. If the students studying abroad find no counterpart courses at Stanislaus, he/she should register for one of the courses listed below.
Student Services

INST 2930. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.

INST 4930. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.

INST 5930. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.

INTERNATIONAL (FOREIGN) STUDENT PROGRAM

The International (Foreign) Student Program serves the personal, administrative, and educational needs of a small number of students from other lands. The foreign student adviser represents international students, helps to establish and promote intercultural and personal relationships, and interprets as well as helps international students to meet immigration regulations. Other services offered through the program include counseling on such matters as financial planning, part-time employment opportunities, housing, and personal adjustment to the college and community environments.

INTRAMURAL AND INTERCOLLEGIATE ATHLETICS

There is a substantial intramural program available throughout the year including six-man football, badminton, horseshoe, bowling (coed), softball (coed), volleyball (coed), basketball (male and female), and other special activities and free recreation time in the gymnasium. The College also participates in twelve intercollegiate sports: baseball, basketball (male and female), golf, cross country, track, tennis (male and female), volleyball and softball (female), soccer and wrestling. The men participate in the Far Western Conference of the NCAA and the women in the Golden State Athletic Conference.

Cal State Stanislaus is the NCAA Division III National Champion in baseball and golf for the years 1976 and 1977. Fourteen College athletes were honored as All Americans.

ORIENTATION

The orientation program provides new students with an opportunity to learn about services, personnel, activities, and the academic program. It is a unique opportunity for a student to meet and interact with trained peer advisers and the professional staff.
STUDENT CONDUCT, RIGHTS AND RESPONSIBILITY

The College assumes that students are mature individuals who have a serious academic purpose in attending college and that they will conduct themselves individually and in groups in an appropriate manner. Departures from appropriate conduct can result in sanctions ranging from oral reprimands to expulsion. Actions warranting such measures include violations of Title 5 of the California Administrative Code, regulations of the California State University and Colleges, the College or public law. The College and State regulations are outlined in the Student Handbook which can be obtained in the Student Affairs Office (L-102) along with procedures used in case of violations. There is also available a Statement of Student Rights and Responsibilities and a Student Grievance Procedure in Academic Matters.

STUDENT EMPLOYMENT SERVICES

The Student Employment Service offers a program designed to provide full assistance to students seeking part-time and temporary employment. Staff members assist students with completing an application and notify students of appropriate openings. Students may apply for employment in the Student Services Office, Room L-102. Current openings are posted opposite the Admissions and Records Office.

STUDENT GOVERNMENT AND ACTIVITIES

The Associated Students (ASCSCS) is the elected government of the students of CSCS and has a budget of over $60,000 composed of student fees.

The Student Government represents the students on issues of policy, operates a radio station, publishes a weekly newspaper, administers intercollegiate and intramural programs, maintains social and cultural programs, and maintains and operates several additional services for students.

There are also over 30 clubs and organizations on the campus which provide special interest activities to its members. There is also one fraternity and one sorority.

TESTING

The Testing Office provides a comprehensive program of services for students, faculty, and staff. Tests of aptitude, academic achievement, reading proficiency and study habits, vocational interests, and temperament/personality are available to students to assist them in making educational, vocational, and personal decisions. A program of "Credit by Examination" is also administered by this office, enabling students to obtain academic credit for prior college-level training either formal or informal,
Student Services

and to challenge established college courses under certain circumstances. Information concerning all national testing programs such as Graduate Record Examinations, Medical College Admission tests, and National Teacher Examinations is available. Assistance with test selection, test construction, and the analysis and improvement of evaluation techniques is provided on request to faculty, staff, and students.

VETERANS PROGRAM

The Office of Veterans Affairs (OVA) offers assistance in securing veterans benefits, in transitional procedures when first enrolling at the College, tutoring, job placement, and financial problems. There is also a Veterans Administration Representative (Vet Rep) assigned to the office to deal with VA related matters.

EDUCATIONAL ASSISTANCE FOR VETERANS - Application for VA and Cal-Vet educational benefits must be made through the Office of Veterans Affairs. The Office of Veterans Affairs forwards all applications and necessary VA forms to the Veterans Administration for final claim determination.

ELIGIBILITY - For Veterans Administration purposes, a veteran is eligible for ten years after the date of his separation if he served for a continuous period of 181 days or more or was discharged or released because of a service connected disability.

UNIT LOAD REQUIREMENTS - Veterans and eligible persons should refer to the section of the Catalog entitled "Student Classifications" for listing of units required for full- and part-time enrollment status. This is the schedule that the VA uses in determining pay status.

INFORMATION - Veterans or dependents of veterans should contact the Office of Veterans Affairs for information regarding VA or Cal-Vet benefits, application procedures, or other related services.
GENERAL REQUIREMENTS FOR DEGREES

4-1-4

The 4-1-4 academic calendar inaugurated at California State College, Stanislaus in 1973-74 is a modified semester system. On a yearly basis, the 4-1-4 program requires the same instructional weeks, the same academic credits, and the same fee costs as in a traditional quarter or semester system. The 4-1-4 calendar makes no changes in the basic requirements for a baccalaureate degree. Total units required for graduation, general education requirements, the work required for academic credit—all remain essentially the same.

WINTER TERM

As an integral part of the 4-1-4 program at Stanislaus, winter term courses are required for graduation. Normally, students matriculating as freshmen must complete three winter terms, students entering as sophomores or juniors must complete two winter terms, and senior transfers must complete one winter term. (See Residence Requirements.)

Working students who can demonstrate the necessity of a part-time load during winter term may petition to enroll for two units of Individual Study. One unit courses will normally not be accepted as meeting a Winter Term requirement.

If a student is unable to complete a winter term course due to illness or other circumstances beyond his control and thus is unable to fulfill the winter term requirement for graduation, the student may petition for an alternative—as is the case with most college requirements.

Winter term requirements do not apply to graduate students nor to continuing and transfer students who choose to retain the graduation requirements of catalogs prior to 1973-74. All students, of course, are encouraged to enroll in winter term courses.

DEGREES OFFERED

The College grants the Bachelor of Arts, Bachelor of Science, Bachelor of Vocational Education, Master of Arts, Master of Science, Master of Business Administration, and Master of Public Administration degrees.

ELECTION OF REGULATIONS

A matriculated student who has been in continuous enrollment pursuing a degree may elect to meet baccalaureate graduation requirements in effect either at the time of first entering a California community college or CSUC campus, or at the time of graduation. Program admission and completion requirements for a
General Requirements for Degrees

A prospective candidate for a baccalaureate degree should submit an application for graduation to the Admissions and Records Office when two semesters remain to complete requirements for the degree. In any case, a student should not apply later than the date indicated in the Academic Calendar.

Faculty Approval

Approval of the major adviser and the department concerned is required before the College may award a degree.

Graduation Honors

Graduation honors are awarded to students earning baccalaureate degrees at commencement on the basis of both their overall and California State College, Stanislaus grade point averages achieved in their undergraduate work, as follows:

- Cum Laude: 3.40-3.59
- Magna Cum Laude: 3.60-3.79
- Summa Cum Laude: 3.80-4.00

Requirements for a Baccalaureate Degree

To qualify for a baccalaureate degree, a student must satisfy the specific requirements in the following areas:

Units

A minimum of 124 semester units is required. At least 40 units must be in courses recognized for upper division credit.

Residence

A student must complete a minimum of 30 semester units at the College. At least 24 of these 30 units must be earned in upper division courses and 12 of the units must be in the major.

Credit in summer sessions may be counted as residence credit on a unit-for-unit basis. Extension course credit or credit by evaluation will not be counted as residence credit.

In addition, students must complete winter terms as follows (Also see section on Winter Term):

1. Students entering as freshmen with less than 15 semester units must complete three winter terms.
2. Students entering as freshmen with 15 or more units,
General Requirements for Degrees

entering as sophomores, or entering as juniors with less than 75 semester units must complete two winter terms.

3. Students entering as juniors with 75 or more semester units or entering as seniors must complete one winter term.

SCHOLARSHIP

Each student must complete with a grade point average of 2.0 (C) or better (1) all acceptable college units attempted, (2) all units attempted in a major field of study, and (3) all residence credit units attempted at the College.

WRITING SKILLS

On May 26, 1976, the Board of Trustees approved a resolution requiring a demonstration of writing skills competency as a requirement for graduation. Students are advised to obtain further information from the College Test Office on available methods for meeting this requirement.

GENERAL EDUCATION-BREADTH REQUIREMENTS

To provide more options for students, the College has adopted a flexible General Education program within the requirements of the California Administrative Code, Title 5, Section 40405. The College's General Education requirements total a minimum of 40 semester units. The courses and units are distributed among the four areas of Natural Sciences, Social Sciences, Humanities, and Basic Subjects, as well as courses required in U.S. history, government, and physical education. The College accepts certification of General Education-Breadth requirements by a California community college or other CSUC campus according to regulations of Title 5. The College upon request will certify completion of these requirements to another CSUC campus.

NATURAL SCIENCES

A minimum of 6 semester units are required to include at least one course from each of the following two groups, one of which must include a lab.

1. BIOLOGICAL SCIENCES

   BIOL 1010. Principles of Biology (lab), 4 units
   BIOL 2310. Human Genetics, 2 units (no lab credit)
   BIOL 2650. Environmental Biology, 2 units (no lab credit)
   BOTY 1050. Introduction to Botany (lab), 4 units
   ZOOL 1050. Introduction to Zoology (lab), 4 units

2. PHYSICAL SCIENCES

   ASTR 2100, 2110. Descriptive Astronomy (lab optional),
   Lecture, 3 units; lab, 1 unit

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General Requirements for Degrees

**CHEM 1000.** Chemistry in the Modern World, 3 units
(no lab credit)

**CHEM 1100.** Principles of Chemistry I (lab), 5 units

**CHEM 1110.** Principles of Chemistry II (Lab), 5 units

**CHEM 1200.** The Consumer and Chemistry, 2 units (no lab credit)

**CHEM 2400.** Science of Winemaking, 4 units (no lab credit)

**GEOL 2100.** Principles of Geology (lab), 4 units

**PHSC 1000.** Solar Energy Today, 3 units (no lab credit)

**PHSC 1300.** Environmental Pollution, 3 units (no lab credit)

**PHSC 2000.** Introduction to Earth Science, 3 units
(no lab credit)

**PHSC 2100.** Atmosphere, Weather, and Climate, 3 units
(no lab credit)

**PHYS 1100.** Basic Physics I (lab), 5 units

**PHYS 1110.** Basic Physics II (lab), 5 units

**PHYS 1500.** Energy and Matter (lab), 3 units

**SOCIAL SCIENCES**

A minimum of 6 semester units are required to include at least two courses from the following list.

**ANTH 2000.** Cultural Profiles: Introduction to Peoples of the World, 3 units

**ANTH 2060.** Introduction to Cultural Anthropology, 3 units

**ANTH 2080.** Introduction to Physical Anthropology, 3 units

**ANTH 2090.** Introduction to Prehistoric Archeology, 3 units

**ECON 2500.** Principles of Economics I, 4 units

**ECON 2510.** Principles of Economics II, 4 units

**ETHS 2000.** Contemporary Black Studies, 3 units

**ETHS 2100.** Contemporary Chicano Studies, 3 units

**ETHS 2200.** Contemporary Asian-American Studies, 3 units

**ETHS 2300.** Contemporary Native American Studies, 3 units

**GEOG 2000.** Interaction: Man & the Earth, 3 units

**GEOG 2010.** Introduction to the Physical Environment, 3 units

**GEOG 2020.** Introduction to Cultural Geography, 3 units

**GEOG 2400.** World Regional Geography I, 3 units

**GEOG 2410.** World Regional Geography II, 3 units

**HIST 1010.** Western Civilization I, 3 units

**HIST 1020.** Western Civilization II, 3 units

**HIST 2050.** Third World I, 4 units

**HIST 2060.** Third World II, 4 units

**PSCI 2020.** Politics and Society, 3 units

**PSCI 2600.** Issues in International Politics, 3 units

**PSYC 2010.** Introduction to Psychology, 3 units

**PSYC 2020.** Introduction to Psychological Methods, 3 units

**PSYC 3200.** Psychology of Religion, 3 units

**SOCL 1010.** Introduction to Sociology, 3 units

**SOCL 2240.** Social Problems, 3 units
General Requirements for Degrees

HUMANITIES

A minimum of 5 semester units are required to include at least one course from each of the following two groups.

1. LITERATURE/PHILOSOPHY
   - ENGL 1010. Introduction to Literature, 3 units
   - ENGL 1500. Perspectives in Literature, 3 units
   - ENGL 1501. Perspectives in American Literature, 3 units
   - PHIL 1010. Introduction to Philosophy, 3 units
   - PHIL 2200. Ancient Greek Philosophy, 3 units
   - PHIL 2230. Seventeenth & Eighteenth Century Philosophy, 3 units
   - PHIL 3010. Classics of Western Philosophy, 3 units

2. ARTS
   - ART 1000. Introduction to Drawing, 3 units
   - ART 1100. Two-Dimensional Design, 3 units
   - ART 1200. Three-Dimensional Design, 3 units
   - ART 2100. Art History Survey I, 3 units
   - ART 2110. Art History Survey II, 3 units
   - ART 3420. Art Appreciation & Criticism for the Non-Art Major, 3 units
   - DRAM 1000. Theatre Appreciation, 3 units
   - DRAM 1010. Introduction to Theatre, 3 units
   - DRAM 1112. Playgoing I, Amateur Theatre, 2 units
   - DRAM 2300. Theatre Workshop I, 2 units
   - DRAM 2600. Reader's Theatre, 3 units
   - DRAM 3510. History of Theatre I, 3 units
   - DRAM 3520. History of Theatre II, 3 units
   - MUS 1000. Introduction to Music, 3 units
   - MUS 2400. Orchestra, 1 unit(e)
   - MUS 2410. Chorale, 1 unit(e)
   - MUS 2420. College Choir, 1 unit(e)
   - MUS 2430. Chamber Singers, 1 unit(e)
   - MUS 2440. Symphonic Wind Ensemble, 1 unit(e)

BASIC SUBJECTS

A minimum of 8 semester units are required to include at least one course from each of the following three groups.

1. ENGLISH COMPOSITION(f)
   - ENGL 1000. English Composition, 3 units

2. MATHEMATICS(g)
   - MATH 1000. Math for Liberal Arts Students, 3 units
   - MATH 1030. Elementary Foundations of Mathematics I, 3 units
General Requirements for Degrees

MATH 1040. Elementary Foundations of Mathematics II, 3 units
MATH 1050. Basic College Algebra, 3 units
MATH 1100. Precalculus, 3 units
MATH 1410. Calculus I, 4 units
MATH 1420. Calculus II, 4 units
MATH 1500. Finite Mathematics, 3 units
MATH 1600. Statistics, 4 units
MATH 1610. Statistics for Decision Making, 3 units
MATH 1910. Calculus with Applications I, 3 units
MATH 1920. Calculus with Applications II, 3 units

3. OTHER BASIC SUBJECTS

BUS 2000. Introduction to Computers, 3 units
ENGL 2050. Technical & Report Writing, 3 units
FREN 1010. Elementary French I, 4 units
FREN 1020. Elementary French II, 4 units
GERM 1010. Elementary German I, 4 units
GERM 1020. Elementary German II, 4 units
MATH 1150. Conversational BASIC Programming, 2 units
MATH 1200. Computers and Society, 3 units
MATH 2000. FORTRAN Programming, 3 units
MDIS 2000. Library Resources, 2 units
PHIL 1000. Reasoning, 3 units
PHIL 1100. Logic, 3 units
SPAN 1010. Elementary Spanish I, 4 units
SPAN 1020. Elementary Spanish II, 4 units
SPCH 2002. Public Speaking, 3 units
SPCH 2011. Approaches to Human Communication, 4 units
SPCH 2102. Group Discussion Processes, 3 units
SPCH 2400. Oral Interpretation, 3 units

ADDITIONAL COURSES

In addition to a minimum of 32 semester units selected from the above four areas of Natural Science, Social Science, Humanities, and Basic Subjects, students must also complete course requirements in U.S. history, government, and physical education as indicated below.

1. UNITED STATES HISTORY AND CONSTITUTION; CALIFORNIA STATE AND LOCAL GOVERNMENT

The California Administrative Code, Title 5, Section 40404 requires "... appropriate courses in the Constitution of the United States, and in American history, including the study of American institutions and ideals, and of the principles of state and local government established under the Constitution of this State ... " Completion of the following courses will satisfy these requirements:

...
General Requirements for Degrees

A. One of the following courses covering United States history:
   - HIST 2600. Problems in U.S. History, 3 units
   - HIST 3610. Colonial America, 3 units
   - HIST 3620. Ante-Bellum America, 3 units
   - HIST 3630. America After the Civil War, 3 units
   - HIST 3640. Contemporary America, 3 units

B. One course covering United States Constitution and California State and local government:
   - PSCI 1201. American Government, 3 units

2. PHYSICAL EDUCATION

   A one-semester physical education activity course at the PHED 1000 level is also required by the College for a baccalaureate degree.

   A minimum of 40 semester units of General Education is required. Any undergraduate course is acceptable as additional units toward this requirement, except for those in the discipline(s) of a student's major. For example, a physical education major may take zoology for additional units, but not physical education or health courses.

(a) Any student who is under catalog year graduation requirements prior to 1975-76 will be permitted to substitute this program of General Education requirements for one of a prior year.

(b) Requirements may be satisfied by acceptable scores on the CLEP Natural Sciences General Examination or CSUC science tests.

(c) Requirements may be satisfied by acceptable scores on the CLEP Social Sciences General Examination.

(d) Requirements may be satisfied by acceptable scores on the CLEP Humanities General Examination.

(e) Course must be taken two consecutive semesters for credit to be applicable.

(f) Requirement may be satisfied by acceptable score on the CSUC English Equivalency Examination.

(g) Requirement may be satisfied by acceptable score on the CLEP Mathematics General Examination or a CSUC mathematics test.

(h) Students may satisfy subject requirements in United States History and Constitution and California State and Local Government by passing departmental examinations in these fields. HIST 4640, Constitutional History of the United States, 3 units, will fulfill the U.S. Constitution portion of these requirements.

(i) A student may be exempted from the physical education requirement if the student is over 25 years of age.
General Requirements for Degrees

MAJOR

The major consists of a pattern of upper division courses which are prescribed by the department or school concerned, are exclusive of General Education requirements, and must be preceded by specified prerequisites in the major field of study and in supporting fields. Required courses in a major will total not less than 24 upper division semester units in that discipline. More than one major may be completed.

The College offers programs leading to the baccalaureate with a major in the following areas (available concentrations indicated):

- Anthropology
  - Ethnology
  - Physical Anthropology
  - Prehistoric Archaeology
- Art
  - Painting
  - Printmaking
  - Sculpture
- Biological Sciences
  - Botany
  - Entomology
  - Environmental Sciences
  - Marine Biology
  - Zoology
- Business Administration
  - Accounting
  - Finance
  - Information Systems
  - Marketing
  - Operations Administration
  - Personnel Administration
- Chemistry
  - Environmental Sciences
- Child Development
- Drama
- Economics
- English
- French
- Geography
  - Applied Geography
  - Human Geography
  - Physical Geography
- History
  - History of Religions
- Liberal Studies
  - Bilingual/Cross-Cultural Emphasis
- Mathematics
  - Computer Science
  - Operations Research
  - Statistics
- Music
- Nursing*
- Physical Education
  - Recreation
- Physical Sciences
  - Applied Physics
  - Earth & Space Sciences
  - Environmental Sciences
- Physics
  - Environmental Sciences
- Political Science
  - Public Administration
- Psychology
- Social Sciences
  - Interdepartmental Program
  - Administration of Justice
  - International Studies
  - Urban & Community Studies
- Sociology
  - Corrections
  - Human Services
- Spanish
- Special Major
- Speech
  - Communication Disorders
  - Organizational Communications
- Vocational Education

*Upper Division Program - Open to RN's only.

Note: Students seeking teaching credentials are advised to consult a credential adviser. (See Division of Education.)
As the College grows, new majors will be added. Freshmen may claim any additional majors developed and offered by the time they reach upper division standing.

**SPECIAL MAJOR**

Special academic programs leading to a degree not accommodated by existing standard degree programs are available for strongly motivated students at the College. A program as designed jointly with a volunteer committee of faculty advisers may be submitted for approval on a Request for Special Major Program form. This committee must consist of three professors from at least two disciplines. A student interested in a Special Major program may search out a volunteer faculty advisory committee on his own.

Permission of the Coordinator of Academic Advising will be required in all cases. For meritorious programs, the College is prepared to suspend normal College rules (but not State laws nor Trustee regulations) governing majors, minors, general studies, and the like. The proposal may be for a special major only or for a comprehensive program covering the student's undergraduate experience at the College. The applicant must have at least 30 semester units remaining to complete minimum requirements for a baccalaureate degree at the College before permission may be granted for a Special Major.

**MINOR**

Completion of a minor is a requirement for a baccalaureate degree when required by the department of the major. A minor is a pattern of prescribed course work consisting of a minimum of 8 upper division semester units and a minimum of 15 semester units in courses acceptable to the major adviser and the department concerned. Departmental minors normally require one-half of the number of units required for a major within a department. More than one minor may be completed.

A minor for the baccalaureate degree, if required, may be selected from the listing below:

- Anthropology
- Art
- Art History
- Biological Sciences
- Black Studies
- Business Administration
- Chemistry
- Chicano Studies
- Earth Sciences
- Economics
- English
- Ethnic Studies
- French
- Geography
- German
- History
- History of Religions
- Journalism
- Mathematics
- Music
- Philosophy
- Physical Education
- Physical Sciences
- Physics
- Political Science
- Psychology
- Recreation
- Sociology
- Spanish
- Speech
- Technology & Change
- Women's Studies

(Pending)

As the College grows, new minors will be added. Freshmen may also claim any additional minors developed and offered by the time they reach upper division standing.
General Requirements for Degrees

DEPARTMENTAL REQUIREMENTS

All requirements of the department of the major must be completed to qualify for a baccalaureate degree.

ALL COLLEGE REGULATIONS

Compliance with all regulations prescribed by the College is a requirement for graduation with a baccalaureate degree.

REQUIREMENTS FOR AN ADDITIONAL BACCALAUREATE DEGREE

To qualify for an additional baccalaureate degree at the College, students must:

1. Complete a minimum of 30 semester units in residence at the College including at least 24 upper division units, after requirements for their last degree have been fulfilled; at least 12 of these units must be in the subject field of the student's current major; and at least one winter term.

2. Comply with all graduation requirements of the College including the General Education requirements and approval by the major adviser, department of the major, and the faculty.

3. Maintain at least a 2.0 (C) grade point average for all Stanislaus residence course work taken while pursuing the additional degree.

4. Complete a major in a discipline other than that in which a previous degree was earned.

Rather than complete requirements for an additional degree, a postbaccalaureate student may, if preferred, complete only requirements for an additional major. Such a program must be completed under the supervision of an academic department and is certified only through the Admissions and Records Office.
The College offers Master of Arts programs in Education, English, History, Psychology, and Speech; Master of Business Administration; Master of Public Administration; Master of Science, Psychology; and a Master of Arts, Special Major. Specific requirements within these degree programs will be found in the catalog sections of the department concerned.

MASTER OF ARTS, SPECIAL MAJOR

A special academic program leading to a master of arts degree not accommodated by existing standard degree programs is available for strongly motivated students at the College. A student interested in the Master of Arts, Special Major, should contact the Graduate Studies Office to obtain a copy of the rules and conditions governing the program.

GRADUATE APPLICATION PROCEDURES

All applicants for any type of postbaccalaureate status (e.g., master's degree aspirants, those seeking credentials, and those interested in taking courses for professional growth, etc.) must file a complete application packet for admission to postbaccalaureate status within the appropriate filing period. A complete application packet for admission to postbaccalaureate status includes an "Application for Admission/Readmission," a "Supplemental Application for Postbaccalaureate/Graduate Admission," and the $20 non-refundable application fee. Postbaccalaureate applicants who were enrolled as undergraduate students at Cal State Stanislaus in the term immediately preceding the term for which they now wish to apply are also required to complete and submit an application packet and remit the $20 non-refundable application fee. Applicants seeking financial aid should also complete and submit with the application material specified above, an "Application for Financial Aid."

Since applicants for postbaccalaureate programs will be limited to the choice of a single campus on each application, redirection to alternative campuses will be minimal. In the event that a postbaccalaureate applicant wishes to be considered by more than one campus, it will be necessary to submit a separate application (and fee) to each.

Application materials may be obtained from the Admissions Office or the Graduate Studies Office of any campus within the California State University and Colleges system. Applicants must contact the department for instructions regarding specific departmental admission procedures.
Graduate Programs

TRANSCRIPTS

A graduate who is seeking admission to postbaccalaureate study, a graduate program, or a credential program must request that two copies of complete official college transcripts be sent directly to the Admissions and Records Office from each college (other than Stanislaus) and university at which the student registered.

ADMISSION TO POST-BACCALAUREATE STANDING: UNCLASSIFIED

A student not having a graduate degree or credential objective may be admitted to Unclassified Postbaccalaureate standing. Such admission requires an acceptable baccalaureate degree or equivalent academic preparation as determined by the College, and good standing in the last college attended.

Students admitted in this category are those having declared undergraduate objectives (e.g., a second bachelor's degree) or students seeking to enroll in specific courses for personal or professional growth.

ADMISSION TO GRADUATE STANDING: CONDITIONALLY CLASSIFIED

Students seeking admission to a specific graduate degree program who have deficiencies in prerequisite preparation may be admitted to the program with conditionally classified standing. Students admitted on conditionally classified status will be informed by their departments of deficiencies to be made up in order to have their conditional standing removed.

ADMISSION TO GRADUATE STANDING: CLASSIFIED

Graduate classified standing is awarded to an applicant for admission to a degree program who meets all the criteria for admission specified by the College and the department(s) offering the program.

ADVANCEMENT TO MASTER'S DEGREE CANDIDACY

Classified graduate standing gives a student permission to work toward qualifying for candidacy. Advancement to candidacy gives a student permission to proceed toward qualifying for the degree. Requirements for advancement to candidacy include the following:

1. Classified graduate standing, including satisfactory performance on any required test.
2. Completion of any undergraduate prerequisites which the adviser specifies.
3. A minimum grade point average of 3.0 (both overall and at the College) on all upper division and graduate course work from the date of embarking on the first course of the proposed master's degree program.
4. Satisfactory completion of the foreign language requirements for those programs having such a requirement.
5. Approval by the appropriate departmental graduate committee.

6. As soon as possible after the completion of Steps 1 through 5, submission to the department of a properly signed petition for advancement to candidacy, including a departmentally approved program of graduate study for the master's degree.

**MASTER'S DEGREE PROGRAM REQUIREMENTS**

The program requirements for master's degrees assume substantial undergraduate preparation in the field. A student lacking this preparation will find it necessary to exceed the minimum requirements indicated below.

The program for the master's degree is a coherent pattern of (1) courses specified for an approved field of concentration, and (2) additional courses selected to meet the student's particular needs. It consists of at least 30 units completed after the bachelor's degree and within seven years just preceding the granting of the master's degree. Only graduate courses (5000 series) and approved upper division courses are acceptable in the unit requirement. Other courses are counted in calculating the student's study load, but cannot be counted toward the unit requirement for the master's degree. The total program must include the following:

1. At least 21 units of the program must be Stanislaus residence credit, 6 units of which must have been taken at Stanislaus prior to enrolling for the thesis or project or for a seminar alternative to the thesis.

2. Of the 30 units for the degree, not more than 9 units may consist of any combination of transfer credit. Credit by examination may be used to fulfill prerequisites, but may not apply toward the 30 units. Extension credit is not regularly used on master's degree programs; special cases recommended by the department may be evaluated by the Graduate Dean. Transfer extension and correspondence credit may be used toward a master's degree only if the institution offering the work would use it on a comparable master's degree program and if it is recommended by the department and judged by the Graduate Dean to be particularly relevant to the individual student's program.

3. With approval of departmental graduate adviser, postbaccalaureate credit allowed for work taken in the term or summer in which the baccalaureate degree is granted may be applied toward a master's degree, if it meets master's degree criteria in all respects.

4. At least half of the units must be in courses designed primarily for master's degrees (numbered in the 5000 series). Most programs require more than 15 units of 5000 series course work.

5. Appropriate course work from a field other than the major may be required at the discretion of the major department.

6. Appropriate provision must be made for a thesis, a project, or, when permitted, a seminar alternative.

It is the student's responsibility to complete the specific courses included in the degree program. Once a degree program has been approved by the student's graduate committee, it may be changed only on the written request of the student and the approval of the major adviser and the Graduate Dean.
Graduate Programs

FOREIGN LANGUAGE REQUIREMENT

Foreign language is not a general college requirement for admission to or completion of the master's degree program at the College. However, for advancement to candidacy, demonstration of competence, usually equivalent to that achieved through two years of collegiate study of one foreign language, is required in specified majors in which upper division and graduate courses demand such competence.

Ordinarily, the requirement calls for demonstration of the ability to read materials of the major in one appropriate foreign language.

GRADE REQUIREMENTS

1. All graduate students will be held to the scholarship standards listed under Academic Standards.
2. No course with a grade below C may apply on a master's degree program.
3. To be eligible for advancement to candidacy, a student must have earned a B average on all upper division and graduate course work completed after the date of embarking on the first course to be included in the master's degree program.

To be eligible for the granting of the degree, a student must have maintained a B average on his complete program. Any grade earned in a course on the program continues to be computed in the grade point average, even if that course is for any reason later dropped from the program. To be eligible to receive the master's degree with distinction, a student must be nominated by the department and must have earned at least a 3.9 grade point average on the program for the master's degree or on all upper division and graduate work subsequent to the bachelor's degree.

EXAMINATIONS

Besides regular course examinations, some master's degree programs at the College require qualifying examinations for classified standing and advancement to candidacy and, in some instances, final oral and written comprehensive examinations at the conclusion of the program are required.

QUALIFYING EXAMINATIONS

Among the qualifying examinations used by some departments are the Aptitude Test and the Advanced Test of the Graduate Record Examinations, a nationally standardized group of examinations prepared and scored by the Educational Testing Service. Graduate Record Examinations are given four times a year in various parts of the world; students taking the examination at any of the testing centers may request that their scores be sent to the College Test Office. The College Test Office administers the test on the College campus. For information about dates, fees, and application procedures, consult the Test Office or the Graduate Studies Office.
In addition to the qualifying examinations, all departments reserve the right to require written or oral comprehensive examinations when circumstances demand. A few departments require final comprehensive examinations of all candidates, and most departments requiring a thesis also require an oral defense of the thesis. Graduate students are urged to consult their graduate adviser about examination requirements.

**EXTENSION OF TIME**

A period of seven years is allowed for the completion of all requirements for the master's degree. A student whose program has been interrupted by military service should consult the Graduate Dean about provisions for military extensions. Otherwise, time may be extended only by the substitution of recent courses for outdated ones or by the passing of comprehensive examinations in the relevant courses or subject field.

**THESIS, PROJECT, AND THESIS ALTERNATIVE**

The College has adopted the following definitions of the terms "thesis" and "project":

1. A thesis is the systematic study of a significant problem. The problem, its major assumptions, its significance, the methods and sources for gathering data, the analysis of data, and the conclusions and recommendations are clearly stated.

2. A project may take either of the two following forms:
   - The systematic development of a plan for, or the critical evaluation of, a significant undertaking, or
   - A creative work such as a novel, a musical composition, or a group of paintings.

   In either type of project criteria employed in developing the plan, or in making the evaluation of the task, the details of the plan or evaluation, the methods used, and the supporting data are clearly stated.

3. A thesis alternative is a specifically designed or selected seminar designated by a department as acceptable in lieu of the thesis.

   No academic distinction is made between a thesis and a project. Either one is equally acceptable as a means of fulfilling the requirements for the master's degree. Specific departmental instructions or requirements should, however, be ascertained by the candidate before enrollment in courses numbered 5990.

   Whether a student is preparing a thesis or a project, it should be noted that the quality of the work accomplished is a major consideration in judging acceptability. The finished product must evidence originality, appropriate organization, clarity of purpose, critical analysis, and accuracy and completeness of documentation.

   Critical thinking and independent thinking should characterize every project. Mere description, cataloging, compilation, or other superficial procedures are not adequate.
Graduate Programs

The quality of the writing, format, and documentation must meet standards approved by the department granting the degree. Generally, the format and writing must meet standards appropriate for publication in the scholarly journals of the field, or consistent with the dictates of an authorized stylebook. The student must consult with the thesis chair concerning these matters before beginning work on the thesis.

1. Registration for thesis requires authorization by the department chair. If, however, a student fails to enroll within one semester (excluding summer sessions) after his official acceptance by a thesis committee, the committee is dissolved, and a new committee must be appointed before registration can be processed. A student planning to register or reregister for thesis after a break in regular semester attendance must be readmitted to the College.

2. A student whose thesis is planned to extend over more than the term in which he first enrolls in 5990 may receive a Satisfactory Progress (SP) grade.

3. Before a thesis is officially accepted by the Master's Committee, it must meet the above criteria on matters of format, documentation, and quality of writing.

4. Four copies signed by the thesis chair and ready for binding, together with the departmental clearance form, must be submitted to the Graduate Studies office no later than the last day to submit approved master's degree theses as specified in the current Catalog for the semester or term in which the student seeks to graduate. Three bound copies of the thesis are retained by the College--two go to the Library and one to the student's department. Binding expenses for copies retained by the College are the student's responsibility.

5. A student may arrange to have the thesis published in microfilm form, with an abstract of the thesis published in the quarterly periodical Masters Abstracts. This form of publication is encouraged by the College. Further details of the microfilming and copyright procedure may be obtained from the College Librarian.

APPLICATION FOR GRADUATION WITH A MASTER'S DEGREE

A request that the master's degree be granted must be filed (including verification of payment of the graduation fee) at the Admissions and Records Office in the first two weeks of a term or first week of a summer session in which the work is to be completed. Dates for filing applications are listed in the Academic Calendar. Diplomas for those completing degree requirements during summer sessions and at midyear will be awarded at the following June commencement exercises.

Failure to complete requirements for the degree during the term of the application necessitates the filing of a new application for the term of actual completion.
COURSE NUMBERING SYSTEM

COURSE LEVEL IDENTIFICATION

1-999 Subcollegiate
1000-2999 Lower division courses designed primarily for freshmen and sophomores
3000-4999 Upper division courses designed primarily for juniors and seniors, and certain selected courses for graduate students. These courses should be taken by freshmen and sophomores only under unusual circumstances approved by both the instructor and major adviser.
5000-5999 Graduate courses for degrees. These courses are open only to qualified graduate students.
6000-6999 Professional postbaccalaureate courses.
8000-8999 Courses not applicable to baccalaureate or advanced degrees. These courses are often unique in format, experimental in content, and provide opportunities to pursue intellectual, civic, and cultural interests. Includes non-credit courses.

During Spring 1963 to Spring 1967, appearance of the letter "G" following a course title on a student's permanent academic record indicates graduate-level credit in courses recommended by the College as applicable to advanced degree programs.

SPECIAL COURSE NUMBERS

For uniformity, certain types of courses have been listed under a single number by all departments and divisions as follows:

4920, 5920, and 6920 .......... Workshops
4940, 5940, and 6940 .......... Internship/Field Work
2950, 4950, and 5950 .......... Selected Topics
4960 .......... Senior Seminars
2970, 4970, 5970, 6970 .......... Offered only Winter Term
4980, 5980, and 6980 .......... Individual Study
4990 and 5990 .......... Thesis

EXPLANATION OF COURSE NOTATIONS

The notations used in course descriptions listed under the various departments are as follows:

1. The figure in parentheses following the course title indicates the number of semester units for the course. Courses offered for varying units are indicated as (2-4), (1-5), etc.
2. A notation such as (Formerly 4500), at the end of a course description indicates the course was previously numbered 4500.
3. Winter Term courses are not described in this catalog but are described in a Winter Term bulletin.
Administration of Justice

A Concentration Within the Social Sciences Major

Michael H. Moynihan, Ph.D., Director

The Administration of Justice Program leads to a Bachelor of Arts, Social Sciences. The concentration prepares students for careers in law enforcement, corrections, probation, and parole. The program includes scheduling for both in-service and pre-service students.

REQUIREMENTS FOR THE DEGREE WITH A CONCENTRATION IN ADMINISTRATION OF JUSTICE

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete SSCI 3000. Library Resources for the Social Sciences, 2 units.
3. Complete one course in research methods (SOCL 2030, 4 units), and the major consisting of not less than 35 upper division units from the list below as approved by the major adviser:

   4 courses in Sociology (select from Section B)
   3 courses in Psychology
   3 courses in Political Science (Jurisprudence)
   1 Interdisciplinary Social Science Seminar (Administration of Justice Selection)
   1 Interdisciplinary Library Resource course for the Social Sciences, SSCI 3000.

12 courses of not less than 35 upper division units. Maximum of 8 units of Winter Term CR-graded course work may apply toward the major.

No minor is required.

REQUIRED AND RECOMMENDED COURSES: *

1. INTERDISCIPLINARY.

   SSCI 3000. Library Resources for the Social Sciences, 2 units
   SSCI 4960. Social Sciences Interdisciplinary Seminar, Administration of Justice, 3 units

*Note: Under special circumstances (e.g., required or commended courses are not offered, etc.) students may substitute related courses for the required and recommended courses on an ad hoc basis with their adviser's consent.
2. SOCIOLOGY. Prerequisite: SOCL 1010, Introduction to Sociology, 3 units

A. Research Methods

SOCL 2030. Research Methods, 4 units

B. Criminology: Criminal Justice (Select 4)

SOCL 3020. Criminal Justice Research, 3 units
SOCL 3250. Criminal Justice I, 3 units
SOCL 4120. Sociology of Crime & Delinquency, 3 units
SOCL 4130. Sociology of Correction, 4 units
SOCL 4140. Sociology of Law, 3 units
SOCL 4240. Social Deviance, 3 units
SOCL 4250. Criminal Justice II, 3 units

3. PSYCHOLOGY. Prerequisite: PSYC 2010, Introduction to Psychology, 3 units

Select 3 from the courses below:

PSYC 3130. Human Development, 3 units
PSYC 3160. Introduction to Psychological Testing, 3 units
PSYC 3310. Introduction to Social Psychology, 3 units
PSYC 3320. Introduction to Personality, 3 units
PSYC 3350. Introduction to the Study of Abnormal Behavior, 3 units
PSYC 3790. Introduction to Counseling Theory, 3 units

4. POLITICAL SCIENCE (JURISPRUDENCE)

Prerequisite: PSCI 1201

Select 3 from the courses below:

PSCI 3220. Constitutional Law, 4 units
PSCI 3260. Urban Justice, 3 units
PSCI 3300. Introduction to Public Administration, 3 units
PSCI 4200. Problems in Civil Liberties, 3 units
PSCI 4210. The Judicial Process, 3 units
PSCI 4315. Public Policy Making, 3 units
Anthropology

Melvin H. Aamodt, Ph.D., Professor, Chair
Joel S. Canby, Ph.D., Professor
Thomas E. Durbin, Ph.D., Professor
Lewis K. Napton, Ph.D., Professor
Carol P. Carson, Ph.D., Assistant Professor
Corinne P. Armstrong, M.A., Visiting Lecturer

The Department of Anthropology and Geography offers the Bachelor of Arts, Anthropology. The major is designed for students preparing for a career in teaching of the social and biological sciences, and for students preparing for graduate work in anthropology and the various geographical area and interdisciplinary specializations such as African Studies, Asian Studies, Latin American Studies, etc.

Anthropology may also be used as a field for the degree Bachelor of Arts, Social Sciences (for further information, see Social Sciences) and as an area of concentration for the degree Bachelor of Arts, Liberal Studies.

REQUIREMENTS FOR THE BACHELOR OF ARTS, ANTHROPOLOGY

Anthropology majors are to:

1. Complete requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 30 upper division units as approved by the major adviser; of these no more than 8 units of CR graded course work may apply toward the major.

Completion of a minor is not required.

DEGREE MAJOR IN ANTHROPOLOGY

Prerequisites to the Major:

1. ANTH 2060. Introduction to Cultural Anthropology, 3 units
   ANTH 2080. Introduction to Physical Anthropology, 3 units
   ANTH 2090. Introduction to Prehistoric Archaeology, 3 units

2. General Education applicable courses which serve as a useful background for anthropology are listed below; students should include as many of these as practicable while completing General Education requirements. Reading ability in at least one foreign language is also recommended.

   Recommended courses to support the major:
   ART 2100. Art History Survey I, 3 units
   ART 2110. Art History Survey II, 3 units
   BIOL 2310. Human Genetics, 2 units
   BIOL 3810. Evolution, 2 units
   ECON 2500, 2510. Principles of Economics I & II, 8 units
Anthropology

ENGL 2050. Technical & Report Writing, 3 units
GEOG 2020. Introduction to Cultural Geography, 3 units
GEOG 2400, 2410. World Regional Geography I & II, 6 units
GEOL 2100. Principles of Geology, 4 units
HIST 1010, 1020. Western Civilization I & II, 6 units
MATH 1600. Statistics, 4 units
MATH 2000. FORTRAN Programming, 3 units
PHIL 1100. Logic, 3 units
PSCI 2000. Introduction to Political Science, 3 units
PSYC 2010. Introduction to Psychology, 3 units
PSYC 2020. Introduction to Psychological Methods, 3 units
SOCL 1010. Introduction to Sociology, 3 units
ZOOI 1050. Introduction to Zoology, 4 units
ZOOI 2250. Human Anatomy, 3 units

The Major

A minimum of 30 upper division units distributed as follows:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnography</td>
</tr>
<tr>
<td>Ethnology</td>
</tr>
<tr>
<td>Advanced Physical Anthropology and Advanced Prehistoric Archaeology (to include minimally 3 units in each category)</td>
</tr>
<tr>
<td>Elective upper division units in Anthropology</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

CONCENTRATION

Concentrations are obtained by completing the above program and taking all upper division electives in either Ethnology, Physical Anthropology, or Prehistoric Archaeology. Such concentrations will be recorded on the students' transcripts.

DEGREE MINOR IN ANTHROPOLOGY

The minor consists of 21 units, including at least 12 units of upper division courses in anthropology, normally to be distributed as listed below. In addition, minors wishing to specialize in one area of anthropology may do so with the approval of their minor adviser. No more than 8 units of CR graded course work may apply toward the minor.

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites to the major in anthropology</td>
</tr>
<tr>
<td>Ethnography and/or Ethnology</td>
</tr>
<tr>
<td>Advanced Physical Anthropology</td>
</tr>
<tr>
<td>Advanced Prehistoric Archaeology</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Antllro111loty
TEACHING CREDENTIALS
Majors in Anthropology interested in a Social Sciences waiver
for a single subject credential should review Plan II of the Social
Sciences waiver described in the Social Sciences section of the
catalog. Please refer to the Education section of the catalog
for a description of other requirements to be completed for the
single subject credential.

LIBERAL STUDIES CONCENTRATION IN ANTHROPOLOGY
Uni ts

1.

ETHNOLOGY

(rec~mmended for Teaching Candidates)

AN1H 2060. Introduction to Cultural Anthropology. 3
(if used as credit toward completion of
Liberal Studies Area A (Social Sciences),
then GEOG 2020, Introduction to Cultural
Geography, must be taken in addition.)
Ethnography and/or Ethnology

20

Total
2.

17

ARCHAEOLOGY
AN1H 2090.

Introduction to Prehistoric
Archaeology . . . .
Advanced Prehistoric Archaeology

20

Total
3.

3

17

PHYSICAL ANTHROPOLOGY
AN1H 2080.

Introduction to Physical Anthropology.

Advanced Physical Anthropology

3
17
20

Total

ANlHROPOLOGY SI.D3-AREAS

L1w• r Division
AN1H 2000.
AN1H
AN1H
AN1H
AN1H
AN1H

2060.
2080.
2090.
2950.
2970.

Cultural Profiles: Introduction to
Peoples of the World, 3 units
Introduction to Cultural Anthropology, 3 units
Introduction to Physical Anthropology, 3 units
Introduction to Prehistoric Archaeology, 3 units
Selected Topics in Anthropology, 1-5 units
Selected Topics offered during Winter Term,
4 units

107


Anthropology

Upper Division

GENERAL ANTHROPOLOGY

ANTH 4000. Current Trends in Anthropology, 1-2 units
ANTH 4500. Growth of Anthropology, 3 units

ETHNOGRAPHY

ANTH 3050. Cultures of the Middle East, 3 units
ANTH 3060. Australia and Oceania, 3 units
ANTH 3070. Peoples of Africa, 3 units
ANTH 3100. East and South Asia, 3 units
ANTH 3110. Peoples of the Soviet Union, 3 units
ANTH 3350. The North American Indian, 3 units
ANTH 3360. Indians of California and Western North America, 3 units
ANTH 3370. Native Peoples of Mexico, 3 units
ANTH 3390. Native Peoples of Latin America, 3 units
ANTH 3400-3499. Modern Ethnographic Studies, topics vary, 1-4 units

ETHNOLOGY

ANTH 3900. Women: A Cross-Cultural View, 3 units
ANTH 4010. Culture and Personality, 3 units
ANTH 4050. Ethnographic Research Methods, 3-4 units
ANTH 4100-4199. Studies in Social Anthropology, topics vary, 1-4 units
ANTH 4200. Applied Anthropology and Social Change, 4 units
ANTH 4210. Cultural Dynamics, 3 units
ANTH 4220. Folk Literature and Arts in Anthropological Perspective, 4 units

ADVANCED PREHISTORIC ARCHAEOLOGY

ANTH 3520. Method and Theory in Archaeology, 3 units
ANTH 3550. Mesoamerican Archaeology, 3 units
ANTH 3560. Old World Archaeology, 3 units
ANTH 3570. North American Archaeology, 3 units
ANTH 3580. Origins of Old World Civilization, 3 units
ANTH 4600. Archaeological Field Methods, 5 units
ANTH 4610. Seminar in Advanced Archaeology, 3 units
ANTH 4630. Archaeological Expedition Proseminar, 1-3 units
ANTH 4640. Archaeological Expedition, 1-8 units

ADVANCED PHYSICAL ANTHROPOLOGY

ANTH 3750. Human Evolution, 3 units
ANTH 3760. Primates Past and Present, 3 units
ANTH 3780. Primate Social Behavior, 3 units
ANTH 4750. Advanced Human Evolution, 4 units
ANTH 4760. Advanced Primate Evolution and Anatomy, 4 units
ANTH 4780. Advanced Primate Behavior, 4 units

LINGUISTICS

ANTH 3800. Introduction to Linguistics, 3 units
ANTH 4060. Anthropological Linguistics, 4 units

SPECIAL STUDIES

ANTH 4900. Directed Field Research, 1-5 units
ANTH 4940. Internship in Anthropology, 1-6 units
ANTH 4950. Selected Topics in Anthropology, 1-5 units
ANTH 4960. Senior Seminar, 1-4 units
ANTH 4970. Selected Topics offered during Winter Term, 4 units
ANTH 4980. Individual Study, 1-4 units
ANTH 4990. Senior Thesis, 3-5 units
ANTH 5900. Directed Field Research, 1-5 units
ANTH 5950. Selected Topics in Anthropology, 1-5 units
ANTH 5970. Selected Topics offered during Winter Term, 4 units
ANTH 5980. Individual Study, 1-4 units
ANTH 5990. Thesis, 3-6 units

COURSE DESCRIPTIONS

Lower Division

ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World (3)

Introduction to representative cultures throughout the world. A descriptive course designed primarily for non-majors interested in other peoples and their cultures. Prerequisite: None.

ANTH 2060. Introduction to Cultural Anthropology (3)

Introduction to the study of human culture and social institutions, with special emphasis on tribal and peasant societies. Prerequisite: None.

ANTH 2080. Introduction to Physical Anthropology (3)

Survey of human biology and physical anthropology; vertebrate evolution, primate evolution and behavior, human evolution and race.
Anthropology

ANTH 2090. Introduction to Prehistoric Archaeology (3)

Introduction to prehistory and culture growth; the basic theories, methods and goals of archaeology; cultural and historical reconstructions based on the interpretation of data recovered from worldwide archaeological contexts.

ANTH 2950. Selected Topics in Anthropology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of anthropology. Topics may vary each term. Different topics may be taken for credit. Pre-requisite: Consent of instructor.

ANTH 2970. Selected Topics offered during Winter Term (4)

Upper Division

ANTH 3050. Cultures of the Middle East (3)

Investigates the historical and cultural background of the various contemporary societies of North Africa and Southwest Asia. Attention is given to the varied effects of Western culture on the indigenous populations of the Middle East. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3060. Australia and Oceania (3)

Study of the settlement of Australia and the islands of the Pacific Ocean in prehistoric times and survey of the living indigenous cultural groups of the area. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3070. Peoples of Africa (3)

Study of African cultures, with emphasis on peoples of Sub-Saharan Africa. Considers traditional cultures and recent social changes. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3100. East and South Asia (3)

Investigates the cultural development of China, Japan, India, and the major offshore islands. Also considers the lifeways of various primitive and advanced cultures of this region today. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3110. Peoples of the Soviet Union (3)

Examines the development of the European Russians into a nation, the rise of pastoral nomads of the steppes and their impact on Europe, and presents a selected sample of cultures of indigenous peoples of the Siberian taiga, tundra, and steppes; Russia, Turkestan, and the Caucasus. Prerequisite: ANTH 2060 or consent of instructor.
ANTH 3350. The North American Indian (3)

A general survey course designed to acquaint students with the prehistoric and historic cultures of the Indians of North America. The course consists of investigations of various theories of the origin of the American Indian and the application of the culture-area concept to an understanding of the various cultures. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3360. Indians of California and Western North America (3)

Special emphasis is given to the study of the Indians of California and adjacent areas with special reference to their historical and cultural backgrounds. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3370. Native Peoples of Mexico (3)

An ethnographic survey of the prehistoric and contemporary culture areas of Mexico and adjacent regions of Mesoamerica. The course focuses on traditional Amerindian societies, changing peasant villages, and their interaction with modern Mexican culture. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3390. Native Peoples of Latin America (3)

An ethnographic survey of the native (Amerindian) peoples and cultures of Latin America. The course emphasizes the study of traditional folk societies of the present day and their assimilation by the European (Latin) majority culture. (Formerly 3370 and 3380) Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3400-3499. Modern Ethnographic Studies (1-4)

Studies in the ethnography of various areas of the contemporary world. Course content may vary from term to term. Typical courses include: ANTH 3410, Peoples of Europe; ANTH 3420, Latin American Society and Culture. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 3520. Method and Theory in Archaeology (3)

Study of current methods in archaeology, emphasis on applied and theoretical procedures in data sampling, collection, and evaluation; survey of method and theory in excavation of archaeological sites; integration, analysis, and interpretation of archaeological phenomena. Prerequisite: ANTH 2090 or equivalent, or consent of instructor.

ANTH 3550. Mesoamerican Archaeology (3)

A general survey course designed to acquaint the student with
Anthropology

the development of the prehistoric civilizations of Mesoamerica.
(Formerly 3590) Prerequisite: ANTH 2090 or consent of instructor.

ANTH 3560. Old World Archaeology (3)

Survey of major developments in Old World prehistory from the
earliest human beginnings to the beginnings of the Classical
cultures. Emphasis on the archaeology of early hominids in Africa,
the Paleolithic cultures of Europe, the Neolithic of the Near East
viewed against the changing ecology of the Old World. Prerequisite:
ANTH 2090 or equivalent, or consent of instructor.

ANTH 3570. North American Archaeology (3)

Survey of the prehistory of the American Indian from the
arrival of Indians in the New World to the Historic Period. Study
of the archaeological sites, cultures, and culture areas in the
New World north of Mexico. Emphasis on the relation of Indians
and their environment in prehistoric North America. Areas con­
sidered include the Great Basin and the Arctic. Prerequisite:
ANTH 2090 or equivalent, or consent of instructor.

ANTH 3580. Origins of Old World Civilizations (3)

An archaeological survey course designed to acquaint the
student with the evolution of complex culture or civilization in
the Old World. Prerequisite: ANTH 2060 or 2090 or equivalent,
or consent of instructor.

ANTH 3750. Human Evolution (3)

Survey of the evolutionary processes in the development of
humans; origin and phylogeny of hominids; study of fossil hominids
and the extinct primates; fossil evidence for human evolution.
Prerequisite: ANTH 2080 or consent of instructor. Recommended:
ZOOL 1050.

ANTH 3760. Primates Past and Present (3)

Introduction to and description of modern primates, including
diet, habitats, locomotion, and behavior. Discussion of their
anatomy and its variation. Discussion of what is known about the
evolutionary history of primates. Prerequisite: ANTH 2080 or
consent of instructor. Recommended: ZOOL 1050.

ANTH 3780. Primate Social Behavior (3)

Survey of living nonhuman primate groups and their classifica-
tion; geographical distribution, feeding habits, reproduction,
and social behavior of these primates; the implications of non-
human primate behavior for the understanding of human behavior.
Prerequisite: ANTH 2080 or consent of instructor. Recommended:
ZOOL 1050.
ANTH 3800. Introduction to Linguistics (3)

An introduction to the scientific study of language. Topics covered include dialect study, language acquisition, comparative linguistics, and modern theories of language. (Same as ENGL 3800)

ANTH 3900. Women: A Cross-Cultural View (3)

Comparative study of traditional and changing roles of women in a wide range of contemporary cultures. Prerequisite: Sophomore standing.

ANTH 4000. Current Trends in Anthropology (1-2)

A symposium on anthropology featuring speakers on their special areas of research, including current anthropological theories. Topics differ each term. May be repeated for no more than 4 units of credit towards the major. Prerequisite: One lower division anthropology class or consent of instructor.

ANTH 4010. Culture and Personality (3)

Individual and modal personalities in relation to cultural background. Socialization in nonliterate and other non-European societies. National character studies, basic personality structure, acculturation, and cross-cultural studies of abnormality. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 4050. Ethnographic Research Methods (3-4)

An introduction to techniques employed by anthropologists in performing primary and secondary research. Both basic statistical and non-statistical methods of handling data are presented. Prerequisites: ANTH 2060 and consent of instructor.

ANTH 4060. Anthropological Linguistics (4)

A survey of major topics in the fields of linguistics and language and culture. Both descriptive and historical approaches to language study are considered. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 4100-4199. Studies in Social Anthropology (1-4)

Studies in various aspects of Social Anthropology. Course content may vary from term to term. Typical courses include: ANTH 4140, Urban Anthropology; ANTH 4150, Religion in Anthropological Perspective; ANTH 4170, Economic Anthropology. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 4200. Applied Anthropology and Social Change (4)

Study of changes resulting from contact between small-scale
and industrialized societies. Consideration will be given to processes of social change and organized attempts to introduce change. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 4210. Cultural Dynamics (3)

Cultural stability and dynamics; with reference to geographical base, innovation, invention, and technology. Prerequisite: ANTH 2060 or consent of instructor.

ANTH 4220. Folk Literature and Arts in Anthropological Perspective (4)

Survey of folk literature and traditional arts of small scale and peasant cultures from an anthropological perspective. Prerequisite: ANTH 2060 or equivalent or consent of instructor.

ANTH 4500. Growth of Anthropology (3)

Study of the history of the development of anthropological methods and theories. (Formerly 3650) Prerequisite: ANTH 2060; ANTH 2080 and 2090 desirable.

ANTH 4600. Archaeological Field Methods (5)

Techniques of site survey, sampling, and excavation with special emphasis on application of systematic field procedures, problem design, excavation, and recording of archaeological evidence under controlled field conditions in the Central Valley. Prerequisite: ANTH 2090 or equivalent, or consent of instructor. (Course may be repeated for a maximum of 10 units.)

ANTH 4610. Seminar in Advanced Archaeology (3)

Advanced studies in archaeology, including planning and direction of archaeological excavations and research projects, procedures in site and survey reporting, simulation in funding and logistics in archaeological field work, advanced synthesis and analysis of archaeological data. Recommended for advanced students in archaeology. Prerequisite: ANTH 3520 or consent of instructor.

ANTH 4620. Science in Archaeology (3)

Survey of applications in archaeology of techniques and theories derived from the natural and physical sciences. Study of dating and analytical techniques, laboratory investigations of faunal, floral, and inorganic materials derived from archaeological sites. Prerequisite: ANTH 3520 or consent of instructor.
ANTH 4630. Archaeological Expedition Proseminar (1-3)

Preparation for the Winter Term or Spring-Summer Session archaeological expedition projects. The proseminar meets once each week during fall or spring semester, and is prerequisite for participation in the Winter Term archaeological expedition. Subject matter includes lectures and assigned readings designed to acquaint the student with the culture, ecology, and relevant topics pertaining to the area to be investigated during the Winter Term or Summer Sessions. Prerequisite: Consent of instructor.

ANTH 4640. Archaeological Expedition (1-8)

Practical experience in archaeological procedures under actual field conditions. The course may include study of known archaeological sites, survey of archaeologically unexplored areas, or excavation of specific sites. Instruction includes research design and methods of implementation, reconnaissance, mapping, recording, testing, and excavation of archaeological data. Related studies include field photography, instrument survey, faunal identification, microanalysis, and expedition logistics. Individual initiative is encouraged. (Formerly 4940) Prerequisites: Consent of instructor and ANTH 2090 or ANTH 3520.

ANTH 4750. Advanced Human Evolution (4)

Study of human anatomy and its application to the understanding of human evolution; detailed studies of the fossil evidence for human evolution. Prerequisite: ANTH 3750 may be taken concurrently or consent of instructor. Recommended: ZOOL 1050.

ANTH 4760. Advanced Primate Evolution and Anatomy (4)

Study of primate anatomy and its application to an understanding of primate evolution; detailed studies of the fossil evidence for primate evolution. Prerequisite: ANTH 2080 or consent of instructor. Recommended: ZOOL 1050.

ANTH 4780. Advanced Primate Behavior (4)

Advanced studies in primate behavior. Includes actual research at local zoos on primates in such areas as aggression, dominance, mother-infant behavior, reproduction, communication, etc. Prerequisite: ANTH 3780 or other course in animal behavior, or consent of instructor.

ANTH 4900. Directed Field Research (1-5)

Field research conducted in any subdiscipline of anthropology under the direction of a specific faculty member. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
ANTH 4940. Internship in Anthropology (1-6)

This course is designed for students who are serving as interns in public or private agencies. Students serve internship as arranged between the agency and the department. Prerequisites: 9 upper division units in anthropology and consent of instructor.

ANTH 4950. Selected Topics in Anthropology (Topics to be specified in Class Schedule) (1-5)

Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ANTH 4960. Senior Seminar (1-4)

Seminar for seniors in anthropology. Review and discussion of selected topics in anthropology. Each student is expected to report on an individual project. Prerequisite: Consent of instructor.

ANTH 4970. Selected Topics offered during Winter Term (4)

ANTH 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ANTH 4990. Senior Thesis (3-5)

Methodology of anthropology. Research techniques applied to investigation of original problems. Problem orientation, research design, manuscript preparation and publication are emphasized. Prerequisite: Consent of instructor.

ANTH 5900. Directed Field Research (1-5)

Field research conducted in any subdiscipline of anthropology under the direction of a specific faculty member. May be repeated for a total of 6 units. Prerequisite: Consent of instructor. Available only for postbaccalaureate credit.

ANTH 5950. Selected Topics in Anthropology (1-5)

Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor. Available only for postbaccalaureate credit.

ANTH 5970. Selected Topics offered during Winter Term (4)

Available only for postbaccalaureate credit.
ANTH 5980. Individual Study (1-4)

For students capable of independent study in one of the fields of anthropology. Topics and supervising instructors may vary. May be repeated for a total of 6 units. Available only for postbaccalaureate credit. Prerequisite: Consent of instructor.

ANTH 5990. Thesis (3-6)

Prerequisite: Consent of instructor. Available only for baccalaureate credit.
Art

Winston E. McGee, M.A., Professor, Chair
Martin L. Camarata, M.A., Professor
Ralf Parton, M.A., Professor
James Piskoti, M.F.A., Associate Professor
Hope B. Werness, Ph.D., Assistant Professor

The Department of Art offers the degree, Bachelor of Arts, Art. Students may also elect to complete a minor in Modern Art History or concentration in painting, printmaking, or sculpture as a part of the degree objective. The program is designed to provide the student with a rich, well-balanced studio and art history program. The art courses and their structural sequence provide the student with mastery of significant skills, exploration of media, modes of expression, and the individual development of artistic performance. Excellent studio facilities play a major role in stimulating a positive approach to creativity.

The Department of Art also offers a one-year postbaccalaureate program leading to a Certificate in Printmaking. The workshop in the printmaking program is available to qualified graduate students.

The art curriculum prepares students for additional academic programs such as graduate school, and teachers credential certification.

The lower division courses along with selected upper division courses are suited for students interested in Liberal Arts and enriching their cultural and intellectual awareness of the creative process.

Requirements for Bachelor of Arts, Art

Art majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the lower division courses or equivalent in Art.
3. Complete the major of not less than 33 upper division units.

Completion of a minor is not required.
Completion of a concentration is optional.

General Requirements for Art Major

1. Students entering the college and transfer students planning a major or minor in art are required to declare their intention upon entering the program with course selections to be made in consultation with a major adviser.
2. Participation in an exhibition of works during the senior year is a requirement for graduation. The Department of Art reserves the right to retain any student art work and reproductions or slides of work for its permanent collection.
Art

3. Art majors are encouraged to participate in departmental field trips, museums and gallery visits, and to take an active part in the gallery, the student Art Club, and the CSCS Arts Guild to serve the cultural needs of the campus and community.

**DEGREE MAJOR IN ART**

**Prerequisites to the Major**

<table>
<thead>
<tr>
<th>Lower Division</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1010. Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1020. Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 1100. Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1200. Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 2100. Art History Survey I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2110. Art History Survey II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**The Major**

| ART 3010. Drawing III          | 3     |
| ART 3200. Painting I          | 3     |
| ART 3210. Painting II         | 3     |
| ART 3300. Sculpture I         | 3     |
| ART 3310. Sculpture II        | 3     |
| ART 3410. Contemporary Art, OR ART 3400. Modern Art, 1900-1945 | 3 |

Major must also choose two courses from the following area:

| Pintmaking                    | 6     |
| ART 3100. Printmaking I, 3 units |       |
| ART 3110. Intaglio, 3 units    |       |
| ART 3120. Lithography, 3 units |       |
| ART 3130. Serigraphy, 4 units  |       |

**Total** | **24**

To complete major requirements, a student must fulfill a total of 9 additional upper division units in studio courses as developed in consultation with major advisers.

**Total** | **51**
ELECTIVE CONCENTRATION IN STUDIO ART

Students wishing to have a specific concentration in painting, printmaking, or sculpture may do so by completing an additional 9 elective units required for the major in one of the studio areas. Courses which are applicable for meeting the concentration requirement are listed below.

PAINTING CONCENTRATION:

ART 3220. Painting III, 6-9 units
ART 4200. Advanced Painting, 3 units
ART 4960. Senior Seminar, 3 units
ART 4980. Individual Study, 3 units

PRINTMAKING CONCENTRATION:

Select 3 courses from the following:

ART 3110. Intaglio, 3 units
ART 3120. Lithography, 3 units
ART 3130. Serigraphy, 4 units
ART 4100. Advanced Printmaking, 3 units
ART 4960. Senior Seminar, 3 units
ART 4980. Individual Study, 3 units

SCULPTURE CONCENTRATION:

ART 3320. Sculpture III, 6-9 units
ART 4300. Advanced Sculpture, 3 units
ART 4960. Senior Seminar, 3 units
ART 4980. Individual Study, 3 units

DEGREE MINOR IN STUDIO ART

Twenty-seven units as listed below:

Lower Division (required)

ART 1010. Drawing I, 3 units
ART 1020. Drawing II, 3 units
ART 1100. Two-Dimensional Design, 3 units
ART 1200. Three-Dimensional Design, 3 units
ART 2100. Art History Survey I, 3 units
ART 2110. Art History Survey II, 3 units

Upper Division

All art minors must choose one course from each of the following areas:
Art

Printmaking:

ART 3100. Printmaking I, 3 units
ART 3110. Intaglio, 3 units
ART 3120. Lithography, 3 units
ART 3130. Serigraphy, 4 units
ART 3140. Photo-Mechanical Techniques for Printmaking, 3 units

Painting:

ART 3200. Painting I, 3 units
ART 3210. Painting II, 3 units
ART 3220. Painting III, 3 units

Sculpture:

ART 3300. Sculpture I, 3 units
ART 3310. Sculpture II, 3 units
ART 3320. Sculpture III, 3 units
ART 3340. Ceramics, 3 units

PRINTMAKING CERTIFICATE PROGRAM

Admission Requirements:

1. B.A. degree with a major in art.
2. Minimum of two courses in printmaking at the undergraduate level.
3. Portfolio evaluation by faculty in the printmaking area.
4. Interest in the field and seriousness of endeavor.

Print courses for the program may be selected from department course offerings in consultation with the adviser.

Requirements for the Certificate:

1. Complete minimum of 14 units of studio electives in printmaking.
2. Submit a portfolio of prints to a faculty committee who shall evaluate the work.
3. Participate in a group print exhibition or a one-man exhibition of prints on campus or a place acceptable to both the student and faculty.

DEGREE MINOR IN MODERN ART HISTORY

Eighteen units, to include at least 8 units in upper division.

Lower Division

ART 2100. Art History Survey I, 3 units
ART 2110. Art History Survey II, 3 units
Electives in Art History as approved by the minor adviser.
Upper Division

ART 3400. Modern Art, 1870-1945, 3 units
ART 3410. Contemporary Art 1945 to the Present, 3 units
ART 4420. Early Modern Art 1800-1870, 3 units
ART 4430. American Art, 3 units
Electives in Art History as approved by the minor adviser.

TEACHING CREDENTIALS

The major requirements in Art for students interested in obtaining a single subject teaching credential are the same as those listed for the Art major. Please refer to the Education section of the Catalog for a description of other requirements to be completed in obtaining a single subject credential. Students must plan their programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.

LIBERAL STUDIES CONCENTRATION IN ART

Lower Division

*ART 1010. Drawing I .............................. 3
ART 1020. Drawing II .............................. 3

Upper Division

Select 15 elective upper division units .......................... 15
Total .............................................. 21

The Department of Art will waive upper division prerequisites for the Liberal Studies degree student.

COURSE DESCRIPTIONS

Lower Division

ART 1000. Introduction to Drawing (3)

Emphasis on introduction to drawing media and process as visual language for the general student. Prerequisite: None.

ART 1010. Drawing I (3)

Descriptive drawing by developing eye and hand control. Variety of media and techniques. Prerequisite: Consent of instructor.

*ART 1010 cannot apply toward the concentration if used to satisfy Liberal Studies Area C requirements.
ART 1020. Drawing II (3)

Continued exploration of drawing. Emphasis on spatial concepts and expressive content using a variety of media and techniques. Prerequisite: ART 1010, or consent of instructor.

ART 1100. Two-Dimensional Design (3)

Studio exploration of plastic elements as a basis for building a theoretical and practical vocabulary for two-dimensional design and composition in color. Prerequisite: None.

ART 1200. Three-Dimensional Design (3)

A course designed to encourage students to see, design, and build sculpture and space forms by combining basic architectural, geometric, and organic concepts with an individual imagination. Assignments will be given in a variety of materials with criticism on each project. Prerequisite: None.

ART 2100. Art History Survey I (3)

Survey of the major visual arts from prehistoric times to the renaissance. Prerequisite: None.

ART 2110. Art History Survey II (3)

Survey of the major visual arts from the renaissance era to important movements of the 20th century. Prerequisite: None.

ART 2600. Basic Photography (3)

Introduction to photography as an art form. Basic photographic theory and black and white darkroom techniques. Emphasis on visual awareness and personalized seeing. Prerequisite: None.

ART 2700. Basic Photo Color Slides (3)

Designed for the student with or without photographic experience who is interested in color transparencies either for projection or for further positive-to-positive color printing. Transparencies will be considered as an art form, as a data retention system, as a documentation system for other art forms, as a diary, as an exposition system and/or as amusements. Prerequisite: None.

ART 2950. Selected Topics in Art (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in art. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.
ART 2970. Selected Topics offered during Winter Term (4)

Upper Division

ART 3010. Drawing III (3)

Emphasis on figure as compositional element. May be repeated for a total of 6 units. Prerequisite: ART 1020 or consent of instructor.

ART 3020. Drawing IV (3)

Development of expression, techniques, and media. Emphasis on independent student production. May be repeated for a total of 6 units. Prerequisite: ART 3010 or consent of instructor.

ART 3100. Printmaking I (3)

Fundamental theories and practices involved in the process of relief printmaking. Emphasis on materials, techniques, tools, and craftsmanship. May be repeated for a total of 6 units. Prerequisites: ART 1020, 1200; or consent of instructor.

ART 3110. Intaglio (3)

Techniques of intaglio printmaking. Exploration of hard and soft grounds, engraving, aquatint, collograph, color intaglio methods, and photo mechanical processes. Emphasis on techniques and their relation to the graphic image. May be repeated for a total of 6 units. Prerequisites: ART 1020, 1200; or consent of instructor.

ART 3120. Lithography (3)

Development of graphic images based on lithographic techniques and processes. Emphasis on the unique qualities of the lithographic print. May be repeated for advanced work. Prerequisites: ART 1020, 1200; or consent of instructor.

ART 3130. Serigraphy (4)

Fundamental theories and practices involved in silk-screen printing. Exploration of silk-screen processes using paper stencil, tusche, and glue block-cut, stencil film, and photo-mechanical techniques. May be repeated for a total of 8 units. Prerequisites: ART 1020, 1200; or consent of instructor.

ART 3140. Photo-Mechanical Techniques for Printmaking (3)

Fundamental theories and practices involved in photo-mechanical applications to etching, lithography, and silk-screen. May be repeated for a total of 6 units. Prerequisites: ART 3110, 3120, 3130; or consent of instructor.
ART 3200. Painting I (3)

Form and content in painting. Painting structure and composition. Basic media, techniques, and concepts including oil, acrylic, and watercolor. May be repeated for a total of 6 units. Prerequisites: ART 1020, 1100; or consent of instructor.

ART 3210. Painting II (3)

Assignments will be given emphasizing the relation of craft to material and content to format. Continued development of spatial concepts, form, and color. May be repeated for a total of 6 units. Prerequisite: ART 3200 or consent of instructor.

ART 3220. Painting III (3)

Assignments with the goal of technical development of media. Emphasis on individual solutions of painting problems and development of critical sense. May be repeated for a total of 9 units. Prerequisite: ART 3210 or consent of instructor.

ART 3270. Watercolor (3)

Painting problems using watercolor medium. Control of technique with an emphasis on individual development and expression. May be repeated for a total of 6 units. Prerequisite: ART 3200 or consent of instructor.

ART 3300. Sculpture I (3)

Assignments are geared to the imaginative use of the figure through clay, plaster, and wax. The purpose is to engage students in a fresh analysis of the figure as a spatial yet personal statement. May be repeated for a total of 6 units. Prerequisite: ART 1200 or consent of instructor.

ART 3310. Sculpture II (3)

A series of assignments will be given in order to make the student consider the relationship of idea of structure. Welding, bronze, and aluminum casting will be the means. Critiques on assignments will be given. May be repeated for a total of 6 units. Prerequisite: ART 3300 or consent of instructor.

ART 3320. Sculpture III (3)

Assimilating and expanding sculptural ideas toward developing an individual personality in sculpture. Plastic fabrication, vacuum-forming, and fiberglass techniques will be used as projects. Extended criticism will be given on all work. May be repeated for a total of 9 units. Prerequisite: ART 3300 or consent of instructor.

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ART 3340. Ceramics (3)

Materials, techniques, and processes used in ceramic hand-built objects. Basic design principles applicable to three-dimensional art/ceramics/sculpture including instruction on potter's wheel. May be repeated for credit. Prerequisite: None.

ART 3400. Modern Art 1870-1945 (3)

An analysis and interpretation of the major artistic movements from 1870-1945. Emphasis will be placed on the changing aesthetic, theoretical, and artistic approaches of this period. Prerequisite: None.

ART 3410. Contemporary Art (3)

Analysis of development of style trends in the visual arts from 1945 to the present. Prerequisite: None.

ART 3420. Art Appreciation Non-Major (3)

Study of the basic elements of the visual arts (color, line, form, etc.) with emphasis on developing a critical appreciation of various modes of expression. Also stressed are techniques and media, functions and themes in art, the role of the artist, and major stylistic trends in the history of art.

ART 4020. Advanced Drawing (3)

Advanced problems and techniques in drawing. Emphasis placed on a professional attitude within a seminar framework. May be repeated for credit. Prerequisite: ART 3020 or consent of instructor.

ART 4100. Advanced Printmaking (3)

Advanced projects in printmaking with emphasis on the development of personal imagery and the mastery of technique. Individual projects via consultation with instructor. May be repeated for credit. Prerequisites: Two courses from ART 3100, 3110, 3120, 3130; or consent of instructor.

ART 4200. Advanced Painting (3)

Advanced problems and techniques in painting. Emphasis on personal concepts, individual development, and a professional attitude within a seminar framework. May be repeated for credit. Prerequisite: ART 3210 or consent of instructor.

ART 4300. Advanced Sculpture (3)

Advanced assignments and critical analysis emphasizing independent production and a sound creative identity. Emphasis will
be placed on a professional attitude within a seminar teamwork. May be repeated for credit. Prerequisites: Two upper division sculpture courses or consent of instructor.

ART 4420. Early Modern Art 1800-1870 (3)

A study of the major trends and artists from Neo-Classicism up to Impressionism. An investigation into the relationship of artists and movements to the cultural and intellectual milieu. Prerequisite: None.

ART 4430. American Art (3)

A study of American art from Colonial times to the present. American art as seen against its broad historical and cultural background. Prerequisite: None.

ART 4510. Gallery Management (1)

Preparation for gallery management. May be repeated for credit. Prerequisite: Consent of instructor.

ART 4941. Internship in Art Gallery (4)

An internship course designed to give a student fundamental knowledge and experiences of managing a commercial art enterprise. Economics and legal aspects of small business. Owner's role and relationships with artists and art consumers. Prerequisite: Art major and consent of instructor.

ART 4942. Internship in Art Printshop (4)

Fundamental knowledge of edition printing. The economics of publishing prints. The marketing of prints. Experiences and various aspects of collaborating with galleries and artists. The management of print workshop as a small business. Prerequisite: Art major and consent of instructor.

ART 4950. Selected Topics in Art (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in art. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

ART 4960. Senior Seminar (3)

Study of the nature and problems confronting the contemporary American artist. Prerequisite: Senior standing in the major.
ART 4970. Selected Topics offered during Winter Term (4)

ART 4980. Individual Study (1-4)

For the student capable of independent specialized work in studio and/or history and criticism. Students would normally be senior art majors with one year of study in the department. A written outline of the proposed independent study must be submitted and approved by the instructor under whom the student wishes to work. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ART 5980. Individual Study (1-4)

For postbaccalaureate students with a degree major in art capable of independent specialized work in studio and/or history and criticism. A written outline of the proposed independent study must be submitted and approved by the instructor under whom the student wishes to work. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ART 5990. Thesis Project (3-6)

The course, required for a minimum of two semesters, is designed to provide a framework for independent studio research demonstrating creative ability and technical proficiency in the area of concentration, culminating in an exhibition of selected works. Prerequisite: Consent of instructor.
Bilingual/Cross-Cultural Emphasis & Concentration

Within the Liberal Studies* Major

Consuelo Gallegos, B.A., Instructor in Education, Coordinator

The College has recently developed a Liberal Studies degree program containing a Bilingual/Cross-Cultural emphasis and concentration. In addition to providing the academic prerequisite for students who are planning to pursue credentials to teach in elementary schools, the program is designed to give graduates the language skills and cultural background to teach in settings having limited and non-English speaking students.

**SUMMARY OF PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Area</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Basic Liberal Studies Area Requirements</td>
<td></td>
</tr>
<tr>
<td>a. Social Sciences</td>
<td>18</td>
</tr>
<tr>
<td>b. Mathematics-Science</td>
<td>18</td>
</tr>
<tr>
<td>c. Arts-Humanities</td>
<td>18</td>
</tr>
<tr>
<td>d. English-Speech</td>
<td>18</td>
</tr>
<tr>
<td>II. Additional units</td>
<td>6</td>
</tr>
<tr>
<td>Intermediate foreign language or, if intermediate language requirement is satisfied by proficiency test, courses should be selected from I, a-d above.</td>
<td></td>
</tr>
<tr>
<td>III. Area of Concentration</td>
<td>20</td>
</tr>
<tr>
<td>IV. Upper division electives--may be education** courses to obtain Preliminary teaching credential</td>
<td>25</td>
</tr>
<tr>
<td>V. Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>

**DETAILED PROGRAM REQUIREMENTS**

I. Basic Liberal Studies Area Requirements

Area A. Social Science (18 semester units)

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* Students wishing to pursue a Liberal Studies program without a Bilingual/Cross-Cultural emphasis and concentration should consult Liberal Studies section in Catalog.

** Students seeking a Multiple Subject Teaching Credential with a Bilingual/Cross-Cultural Emphasis should consult the Education section of this catalog for requirements.
1. PSCI 1201. American Government ............... 3

2. History: one of the following: ............... 3
   HIST 2600. Problems in U.S. History, 3 units
   HIST 3610. Colonial America, 3 units
   HIST 3620. Ante-Bellum America, 3 units
   HIST 3630. America After Civil War, 3 units
   HIST 3640. Contemporary America, 3 units

3. PSYC 2010. Introduction to Psychology ....... 3

4. One of the following Anthropology or Geography courses .......... 3
   ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World, 3 units
   ANTH 2060. Introduction to Cultural Anthropology, 3 units
   GEOG 2000. Interaction: Man & the Earth, 3 units
   GEOG 2400. World Regional Geography I, 3 units
   GEOG 2410. World Regional Geography II, 3 units

5. Selected electives by advisement:
   a. One of the following Contemporary Ethnic Studies courses ......... 3
      ETHS 2000. Contemporary Black Studies, 3 units
      ETHS 2100. Contemporary Chicano Studies, 3 units
      ETHS 2200. Contemporary Asian American Studies, 3 units
      ETHS 2300. Contemporary Native American Studies, 3 units
   b. One of the following cross-cultural courses: ........ 3
      ANTH 3350. The North American Indian, 3 units
      ANTH 3360. Indians of California and Western North America, 3 units
      HIST 3510. Latin America in Colonial Times, 3 units
      HIST 3520. Latin American States Since Independence, 3 units
      HIST 3710. Mexican-American History, 3 units
      HIST 3800. East Asia in Traditional Times, 3 units
      HIST 3810. East Asia in Modern World, 3 units
      HIST 3890. The Oriental Mind, 4 units
      PSCI 4320. Minority Politics, 3 units
      PSYC 3130. Human Development, 3 units
      AND PSYC 3320. Introduction to Personality, 3 units
      SOCL 3010. Race and Ethnic Relations, 3 units
### Area B. Mathematics-Science (18 semester units)

<table>
<thead>
<tr>
<th>Units Required</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MATH 1030. Foundations of Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>AND MATH 1040. Foundations of Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>2. *BIOL 1010. Principles of Biology, Lec &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td>4. PHYS 1500. Energy &amp; Matter, Lec &amp; Lab</td>
<td>3</td>
</tr>
<tr>
<td>5. One course from the following:</td>
<td>2</td>
</tr>
<tr>
<td>ASTR 2100. Descriptive Astronomy, 3 units</td>
<td></td>
</tr>
<tr>
<td>*BIOL 2650. Environmental Biology, 2 units</td>
<td></td>
</tr>
<tr>
<td>GEOL 2100. Principles of Geology, Lec &amp; Lab, 4 units</td>
<td></td>
</tr>
<tr>
<td>*PHSC 1300. Environmental Pollution, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
</tr>
</tbody>
</table>

### Area C. Arts-Humanities (18 semester units)

<table>
<thead>
<tr>
<th>Units Required</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. One art course from the following:</td>
<td>3</td>
</tr>
<tr>
<td>ART 1000. Introduction to Drawing</td>
<td>3 units</td>
</tr>
<tr>
<td>ART 2100. Art History Survey I</td>
<td>3 units</td>
</tr>
<tr>
<td>ART 2110. Art History Survey II</td>
<td>3 units</td>
</tr>
<tr>
<td>2. One drama course from the following:</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 1010. Introduction to Theatre</td>
<td>3 units</td>
</tr>
<tr>
<td>DRAM 3020. Children's Theatre</td>
<td>3 units</td>
</tr>
<tr>
<td>3. MUS 1190. Music Fundamentals</td>
<td>3 units</td>
</tr>
<tr>
<td>4.**SPAN 1010. Elementary Spanish I</td>
<td>4 units</td>
</tr>
<tr>
<td>5.**SPAN 1020. Elementary Spanish II</td>
<td>4 units</td>
</tr>
<tr>
<td>6. PHIL 3000. Humanistic Inquiry</td>
<td>3 units</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
</tr>
</tbody>
</table>

### Area D. English-Speech (18 semester units)

<table>
<thead>
<tr>
<th>Units Required</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ENGL 1000. English Composition</td>
<td>3 units</td>
</tr>
<tr>
<td>2. One English course from the following:</td>
<td>3 units</td>
</tr>
<tr>
<td>ENGL 1010. Introduction to Literature</td>
<td>3 units</td>
</tr>
<tr>
<td>ENGL 1500. Perspectives in Literature</td>
<td>3 units</td>
</tr>
<tr>
<td>ENGL 1501. Perspectives in American Literature</td>
<td>3 units</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
</tr>
</tbody>
</table>

* These courses meet the College requirement that students complete a course which includes the scientific aspects of environmental topics.

**Courses may be completed by satisfactory score on a proficiency test.
3. One speech course from the following: 
   - SPCH 2002. Public Speaking, 3 units
   - SPCH 2010. Approaches to Human Communication, 4 units
   - SPCH 2102. Group Discussion Processes, 3 units

4. One course from the following: 
   - ENGL 3800. Introduction to Linguistics, 3 units
   - SPCH 3020. Structural & Psycholinguistics, 4 units

5. SPCH 3010. Language & Speech Development .... 3

6. One course from the following: 
   *SPAN 3530. Phonology & History of the Spanish Language, 3 units
   - SPCH 3000. Phonetics, 3 units
   - ENGL 3815. Introduction to Bilingualism, 3 units

Total ....... 18

Area E. Physical Education
   PHED 1000. Any 1000-level activity course ... 1

II. Additional Units

   Intermediate foreign language or, if intermediate language requirement is satisfied by proficiency test, 6 units selected by advisement from A-D above.

III. Detailed Bilingual/Cross-Cultural Concentration Requirements

The following courses comprise the Bilingual/Cross-Cultural Concentration within the Liberal Studies major. Fifteen of the required 20 semester units must be upper division courses. Courses completed in the four basic areas of the Liberal Studies major cannot be applied toward the area of concentration.

1. Language-Linguistics Component .... 8-12
   a. Complete the following 6 units:
      *SPAN 3010. Advanced Spanish I, 3 units
      *SPAN 3020. Advanced Spanish II, 3 units

*Other target language may be substituted.
Bilingual/Cross-Cultural

b. Complete 2-6 units by advisement:
*SPAN 3530. Phonology & History of the Spanish Language, 3 units
SPCH 3000. Phonetics, 3 units
ENGL 3815. Introduction to Bilingualism, 3 units

2. Cross-Cultural Component . . . . . . . . . . . . . . 8-12
a. Complete 2-3 semester units from the following:
EDUC 3030. Ethnic Groups in Public Education, 2 units
ETHS 4200. Minority Experience, 3 units
PSCI 4320. Minority Politics, 3 units
SOCL 3010. Race & Ethnic Relations, 3 units

b. Complete 6-9 semester units from the following:
ANTH 3070. Peoples of Africa, 3 units
ANTH 3100. East and South Asia, 3 units
ANTH 3350. The North American Indian, 3 units
ANTH 3360. Indians of California & Western North America, 3 units
EDUC 3030. Ethnic Groups in Public Education, 2 units
EDUC 4200. Teaching the Culturally Different, 3 units
ETHS 4000. Mexican-American Family, 3 units
ETHS 4100. Blacks and the American Educational System, 3 units
ETHS 4110. Social and Psychological Perspectives of the Black American, 3 units
ETHS 4200. The Minority Experience, 3 units
ETHS 4940. Field Work in Ethnic Studies, 4 units
ETHS 4950. Selected Topics in Ethnic Studies, 1-5 units
ETHS 4960. Seminar in Ethnic Studies, 3 units
ETHS 4970. Selected topics during Winter Term, 4 units
ETHS 4980. Individual Study, 1-4 units
GEOG 3590. Geography of Asia, 4 units
HIST 3510. Latin American in Colonial Times, 3 units

*Other target language may be substituted.
## Bilingual/Cross-Cultural

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3520</td>
<td>Latin American States Since Independence</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3710</td>
<td>Mexican-American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3800</td>
<td>East Asia in Traditional Times</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3810</td>
<td>East Asia in the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3860</td>
<td>Africa Before 1800</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3870</td>
<td>Africa, 1800-1945</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3880</td>
<td>Contemporary Africa, 1945 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3890</td>
<td>The Oriental Mind</td>
<td>4</td>
</tr>
<tr>
<td>HIST 4500</td>
<td>History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4800</td>
<td>Modern China</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4840</td>
<td>Modern Japan</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4870</td>
<td>History of Religion in Africa</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 3010</td>
<td>Race &amp; Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3610</td>
<td>History and Civilization of Spanish America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 3930</td>
<td>Spanish Literature in Translation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4600</td>
<td>Literatura mexicana</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4950</td>
<td>Summer Session in Mexico</td>
<td>2-4</td>
</tr>
<tr>
<td>SPAN 4970</td>
<td>El chicano literatura y cultura</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 4970</td>
<td>Winter Term in Mexico</td>
<td>4</td>
</tr>
</tbody>
</table>
Biological Sciences

Jay P. Christofferson, Ph.D., Associate Professor, Chair
Steve J. Grillos, Ph.D., Professor
Glenn A. Hackwell, Ph.D., Professor
James C. Hanson, Ph.D., Professor
Judith Brown, Ph.D., Associate Professor
David M. Gotelli, Ph.D., Associate Professor
Perpetuo S. Mayol, Ph.D., Associate Professor
Wayne S. Pierce, Ph.D., Associate Professor
Pamela Roe, Ph.D., Associate Professor
Walter Tordoff III, Ph.D., Associate Professor
Daniel F. Williams, Ph.D., Associate Professor

The Department of Biological Sciences offers programs of study in the life sciences for students seeking either the Bachelor of Arts or the Bachelor of Science. Students may also elect to complete a concentration in Botany, Entomology, Environmental Sciences, Marine Biology, or Zoology as part of either the Bachelor of Arts or the Bachelor of Science program. Completing a concentration is optional. Students should confer with their departmental adviser to determine which degree and what program is best suited to their career objective.

Students interested in marine biology and oceanography may elect course work at the Moss Landing Marine Laboratories for partial fulfillment of their in-resident major and degree requirements. Refer to the Marine Sciences section of the catalog for description of Moss Landing course offerings.

BACHELOR OF ARTS

The Bachelor of Arts is designed to provide breadth and background in the natural sciences and to allow sufficient flexibility to accommodate the diverse needs of the general student. Individuals preparing for careers in such areas as agriculture, industry and elementary or secondary teaching will find that this degree is adaptable to their career objective.

BACHELOR OF SCIENCE

The Bachelor of Science is designed to provide the comprehensive background in the sciences required for students planning to seek additional training in graduate or professional schools. The degree includes course work that is usually required for admission to schools of medicine, dentistry, veterinary medicine, lab technology, and for admission to graduate work in the biological sciences. Students planning to seek advanced or professional degrees should consult their departmental adviser early in their undergraduate program to determine what specific courses may be required.
Biological Sciences

REQUIREMENTS FOR THE BACHELOR OF ARTS, BIOLOGICAL SCIENCES

Biological sciences majors are to:

1. Complete the college requirements for the bachelor's degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units, including course requirements as specified for the major. No more than 8 units of CR graded course work may apply toward the major.

Completion of a minor is not required.
Completion of a concentration is not required.

BACHELOR OF ARTS DEGREE IN BIOLOGICAL SCIENCES

Prerequisites to the Major:

Required courses in the major field:

BOTY 1050. Introduction to Botany, 4 units
ZOOL 1050. Introduction to Zoology, 4 units

Required courses in supporting fields:

CHEM 1100, 1110. Principles of Chemistry I, II, 10 units
CHEM 3010, 3030. Organic Chemistry, 4-5 units
OR CHEM 2800. Survey of Organic Chemistry, 5 units

Elective courses in Chemistry, Mathematics, Physics or Physical Sciences, 6 units

The Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3310. Cellular &amp; Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3320. General Genetics</td>
<td>3</td>
</tr>
<tr>
<td>Courses in Animal and Plant Sciences</td>
<td>8</td>
</tr>
<tr>
<td>a. One course must be elected from Entomology or Zoology.</td>
<td></td>
</tr>
<tr>
<td>b. One course must be elected from Botany or Microbiology.</td>
<td></td>
</tr>
<tr>
<td>c. One of the above courses must deal with the diversity of organisms. (Acceptable courses are indicated by an asterisk in the course description section of the catalog.)</td>
<td></td>
</tr>
<tr>
<td>Course in Ecology</td>
<td>4</td>
</tr>
<tr>
<td>To be elected from the following:</td>
<td></td>
</tr>
<tr>
<td>BIOL 3630, BIOL 3650, BIOL 4630</td>
<td></td>
</tr>
<tr>
<td>Course in Physiology</td>
<td>4</td>
</tr>
<tr>
<td>To be elected from the following:</td>
<td></td>
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<tr>
<td>BIOL 4220, BOTY 4200, ENTO 4220, ZOOL 4230</td>
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</table>
Biological Sciences

Units

*Electives in the Biological Sciences .................. 10

Total ............................................. 32

REQUIREMENTS FOR THE BACHELOR OF SCIENCE, BIOLOGICAL SCIENCES

Biological sciences majors are to:

1. Complete the college requirements for the bachelor's degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 28 upper division units, including course requirements as specified for the major.
   No more than 8 units of CR graded course work may apply toward the major.
   Completion of a minor is not required.
   Completion of a concentration is not required.

BACHELOR OF SCIENCE DEGREE IN BIOLOGICAL SCIENCES

Prerequisites to the Major:

Required courses in the major field:

BOTY 1050. Introduction to Botany, 4 units
ZOOL 1050. Introduction to Zoology, 4 units

Required courses in supporting fields:

CHEM 1100, 1100. Principles of Chemistry I, II, 10 units
CHEM 3010, 3030. Organic Chemistry, 4-5 units
OR CHEM 2800. Survey of Organic Chemistry, 5 units
Mathematics (statistics or calculus), 3-4 units
*Physics (one-year sequence), 8 units
Elective course in Chemistry, Mathematics, Physics, or Physical Sciences (determined by professional goals of student), 3-4 units

The Major

Units

BIOL 3310. Cellular & Molecular Biology ............. 3
BIOL 3320. General Genetics .......................... 3
Course in Animal and Plant Sciences ................. 8
   a. One course must be elected from Entomology or Zoology.
   b. One course must be elected from Botany or Microbiology.

*A year sequence comparable to PHYS 1100, 1110 or PHYS 2250, 2260, 2350, 2360.
Biological Sciences

Units

c. One of the above courses must deal with the diversity of organisms. (Acceptable courses are indicated by an asterisk in the course description section of the catalog.)

Course in Ecology ................................................. 4
To be elected from the following:
BIOL 3630, BIOL 3650, BIOL 4630

Course in Physiology .............................................. 4
To be elected from the following:
BIOL 4220, BOTY 4200, ENTO 4220, ZOOL 4230

*Electives in the Biological Sciences .............................. 14

Total ..................................................................... 36

ELECTIVE CONCENTRATIONS IN THE MAJOR

Students wishing to have a specific concentration may do so by completing all the requirements for a major in biological sciences to include specific concentration requirements listed below. A minimum of 16 upper division units must be completed within the area of concentration. Additional units within the concentration will be selected with the aid of the adviser.

BOTANY CONCENTRATION

BOTY 3100. Survey of Lower Plants, 4 units
BOTY 3120. Morphology of Vascular Plants, 4 units
BOTY 4200. Plant Physiology, 4 units
or BIOL 4220. General & Cellular Physiology, 4 units

ENTOMOLOGY CONCENTRATION

ENTO 3000. Principles of Entomology, 4 units
ENTO 3330. Medical Entomology, 3 units
ENTO 3740. Insect Classification, 4 units
ENTO 4220. Insect Physiology & Internal Anatomy, 4 units

ENVIRONMENTAL SCIENCES CONCENTRATION

A biological sciences major may complete additional requirements in the sciences and mathematics to qualify for an Environmental Sciences Concentration in addition to the Bachelor of Arts or Bachelor of Science degree in Biological Sciences. This program requires study in biological sciences, chemistry, mathematics and physical sciences, along with an environmental seminar and investigation of an environmentally related problem. Further details are found in the Environmental Sciences section of this catalog.

*A maximum of 8 units may be satisfied by courses at lower division level with the approval of the major adviser.
MARINE BIOLOGY CONCENTRATION

ZOOL 4420. Invertebrate Zoology I, 4 units (or MSCI 3240)
ZOOL 4430. Invertebrate Zoology II, 4 units (or MSCI 3250)
BIOL 4630. Marine Biology, 4 units (or MSCI 3030)
BOTY 3100. Survey of Lower Plants, 4 units (or MSCI 3310)
or BOTY 3140. General Phycology, 4 units (or MSCI 3310)
One term of residence at Moss Landing Marine Laboratories or another marine station.

ZOOLOGY CONCENTRATION: At least one course from each of the following groups:

1. ZOOL 3610. General Vertebrate Zoology, 4 units
ZOOL 4620. Herpetology, 4 units
ZOOL 4630. Ornithology, 4 units
ZOOL 4640. Mammalogy, 4 units

2. ZOOL 4420. Invertebrate Zoology I, 4 units
ZOOL 4430. Invertebrate Zoology II, 4 units
ENTO 3000. Principles of Entomology, 4 units
ENTO 3740. Insect Classification, 4 units

3. ZOOL 4230. Animal Physiology, 4 units
BIOL 4220. General & Cellular Physiology, 4 units

PREPARATION FOR GRADUATE WORK OR PROFESSIONAL DEGREES

Biological sciences majors interested in dentistry, medicine, optometry, and veterinary medicine should complete the following courses: CHEM 3010, 3030; CHEM 3020, 3040; PHYS 1100; PHYS 1110; ZOOL 3130 and ZOOL 3150 or equivalent. Additional course work for specific professions will vary with the profession; i.e. for premedical students, BIOL 4220, CHEM 4010, CHEM 4020, CHEM 4400, CHEM 4410, and mathematics through calculus are recommended.

Additional information may be found in the Health Sciences section of this catalog.

It is recommended that the student who intends to seek an advanced degree in graduate study select a minor in the physical sciences or mathematics and complete at least a college-level one-year sequence or equivalent in French, German, or computer programming (FORTRAN). A year sequence in college physics and a year sequence in organic chemistry should also be completed and students interested in an advanced degree in biochemistry, ecology, or molecular biology should elect a year sequence in calculus and a course in statistics.

Students interested in biological laboratory occupations following the baccalaureate degree in biological sciences should complete BIOL 4310, CHEM 2010, MATH 1600, MATH 2000, MBIO 3010, and MBIO 3030 as part of their major.
DEGREE MINOR IN BIOLOGICAL SCIENCES

Twenty units, to include at least 12 units in upper division.

Lower Division

BOTY 1050. Introduction to Botany, 4 units
ZOOL 1050. Introduction to Zoology, 4 units
(equivalent courses may be substituted by minor adviser)

Upper Division

Courses as approved by minor adviser, 12 units

LIBERAL STUDIES CONCENTRATION IN BIOLOGY

Lower Division

*BOTY 1050. Introduction to Botany, 4 units
or *ZOOL 1050. Introduction to Zoology .......... 4
BIOL 2310. Human Genetics ............................ 2

Upper Division

1. One course dealing with the diversity of biological organisms ........................................ 4
   (To be selected from either Botany, Entomology, Microbiology, or Zoology. Acceptable courses
   are indicated by an asterisk in the course description section of the Catalog.)

2. Biological sciences electives ...................... 11
   (Students are encouraged to select courses dealing with the physiological and ecological
   aspects of biology.)

   Total .................................................. 21

TEACHING CREDENTIALS

Majors in Biological Sciences interested in multiple subject or single subject credentials are referred to the Education section of the Catalog for a description of teaching credential programs.

An approved single subject waiver is available for students who wish to declare Life Science as their subject matter teaching area. The major requirements in Life Science for students interested in obtaining a single subject teaching credential are the same as those listed for the Biological Sciences major. Please refer to the Education section of the Catalog for a description of other requirements to be completed in obtaining a single subject credential. Students must plan their academic programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.

*Either BOTY 1050 or ZOOL 1050 will satisfy the BIOL 1010 requirement in the Liberal Studies program.

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Biological Sciences

COURSE DESCRIPTIONS

BIOLOGY

Lower Division

BIOL 1010. Principles of Biology (4)

Introduction to basic biological phenomena common to all living organisms. Cellular and molecular levels of organization, genetics, and the mechanisms of heredity in organic evolution, environmental associations, structure as it relates to function, and reproduction from the molecular to gross structural levels. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: None.

BIOL 2310. Human Genetics (2)

Basic principles of heredity and evolution particularly as they apply to man. (NOTE: This course will not meet the upper division genetics requirement.) (Lecture, 2 hours) Prerequisite: None.

BIOL 2650. Environmental Biology (2)

Basic ecological concepts as they apply to present day resource management and human environmental problems, including wildlife, forest, soil, water, air, and mineral resources. Ecological aspects of air and water pollution, human population growth, pesticide use, and energy consumption. (Lecture, 2 hours; field trips) Prerequisite: None.

BIOL 2950. Selected Topics in Biology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of biology. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BIOL 2970. Selected Topics offered during Winter Term (4)

Upper Division

BIOL 3310. Cellular and Molecular Biology (3)

Basic concepts of cellular phenomena dealt with at the molecular level of organization. (Lecture, 3 hours) Prerequisites: BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent.

BIOL 3320. General Genetics (3)

Mechanisms of inheritance illustrating the role of genetics in modern biology. (Lecture, 3 hours) Prerequisite: BIOL 3310 or equivalent.
BIOL 3330. Introduction to Microscopy (3)

Theoretical basis and practical uses of various types of light and electron microscopes; what kinds of microscopes yield what kinds of information; how information is recorded. (Lecture, 3 hours) Prerequisite: One year college-level biology.

BIOL 3630. Ecology (4)

Basic interrelationships of plants and animals within their physical environments. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent, and statistics or calculus. (Satisfies ecology elective for the major).

BIOL 3650. Aquatic Biology (4)

The biota of fresh water with emphasis on the ecology, identification, physiology, and behavior of aquatic organisms. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent. (Satisfies ecology elective for the major).

BIOL 3810. Evolution (2)

Basic concepts of evolutionary theory including evidence and mechanisms that underlie and support the evolution of living things. (Lecture, 2 hours) Prerequisites: BOTY 1050, ZOOL 1050, or equivalent; BIOL 3320 recommended.

BIOL 4220. General and Cellular Physiology (4)

Physico-chemical properties of protoplasm, permeability, metabolism, and nuclear-cytoplasm interaction. (Lecture, 2 hours; laboratory, 6 hours) Prerequisites: Two years of college-level biology, and CHEM 3010, 3030, or equivalent. (Satisfies physiology elective for the major).

BIOL 4310. Histological and Cytological Techniques (3)

Principles and practice of preparing tissues for microscopy study. (Lecture, 1 hour; laboratory, 6 hours) Prerequisite: Two years of college-level biology or equivalent.

BIOL 4330. Electron Microscopy Laboratory (2)

Practical use of the electron microscope and practice in the supporting techniques. (Laboratory, 6 hours) Prerequisite: BIOL 3330 and/or consent of instructor.

BIOL 4630. Marine Biology (4)

Study of marine communities with emphasis on local communities. Ecology and natural history of plants and animals, and their
adaptations to marine environments are stressed. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050 or equivalent, and one semester invertebrate zoology or BOTY 3140, and consent of instructor. (Satisfies ecology elective for the major)

BIOL 4950. Selected Topics in Biological Sciences (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of biological sciences. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BIOL 4970. Selected Topics offered during Winter Term (4)

BIOL 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

BIOL 5980. Individual Study (1-4)

For qualified students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

BOTANY

Lower Division

BOTY 1050. Introduction to Botany (4)

Introduction to the fundamental aspects of plant biology; taxonomy, anatomy, morphology, physiology, and ecology. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: Grade of A or B in high school biology, satisfactory score on biology qualifying examination, or BIOL 1010.

BOTY 2950. Selected Topics in Botany (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of botany. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BOTY 2970. Selected Topics offered during Winter Term (4)
*BOTY 3100. Survey of Lower Plants (4)

Natural history and taxonomy of the algae, fungi, lichens, mosses, and liverworts. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: BOTY 1050 or equivalent.

*BOTY 3120. Morphology of Vascular Plants (4)

Comparative study of structure, development, ecology, and evolutionary importance of club mosses, horsetails, ferns, and seed plants. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: BOTY 1050 or equivalent.

BOTY 3140. General Phycology (4)

Survey of the algae, both fresh water and marine. Laboratory portion will emphasize identification. (Lecture, 3 hours; laboratory, 3 hours; field trips) (Formerly 4140) Prerequisite: BOTY 1050 or equivalent.

BOTY 3150. General Mycology (4)

Survey of the fungi with emphasis on their biology. The laboratory portion will concentrate on taxonomy of mushrooms and the culture of selected fungi. (Lecture, 3 hours; laboratory, 3 hours; field trips) (Formerly 4150) Prerequisites: BOTY 1050 or equivalent.

BOTY 3500. Introductory Plant Pathology (4)

Nature, cause, and control of plant diseases with emphasis on economic agricultural crops. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: BOTY 1050 or equivalent.

*BOTY 3700. Flowering Plants (4)

Structure, kinds, taxonomic relationships, and classification of local flowering plants with practice in their collection and identification. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: BOTY 1050 or equivalent.

BOTY 4000. Plant Cytology and Tissue Development (2)

Structure and function of cell parts; growth and morphogenesis of cells and tissues. (Lecture, 2 hours) Prerequisite: BOTY 3120 or consent of instructor.

*This course will satisfy the diversity requirement.
BOTY 4100. Anatomy of Seed Plants (4)

Microscopic study of structure and development of plant tissues with emphasis on tissues of seed plants. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: BOTY 3120 or consent of instructor.

BOTY 4200. Plant Physiology (4)

Selected topics pertaining to metabolism, nutrition, and growth of plants. (Lecture, 2 hours; laboratory, 6 hours) Prerequisites: BOTY 1050 or equivalent, and CHEM 3010, 3030, or equivalent. (Satisfies physiology elective for the major)

BOTY 4950. Selected Topics in Botany (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of botany. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BOTY 4970. Selected Topics offered during Winter Term (4)

ENTOMOLOGY
Upper Division

*ENTO 3000. Principles of Entomology (4)

Classification, control, life history, structure, ecology, and basic physiology of insects. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ZOOL 1050 or equivalent.

ENTO 3330. Medical Entomology (3)

Relation of insects, arachnids, and other arthropods to the causation of pathological conditions in man and other animals or to the transmission of organisms which are responsible for such pathological conditions. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: ZOOL 1050 or equivalent.

*ENTO 3740. Insect Classification (4)

Survey of major groups of insects with classification to family level, taxonomic categories and procedures, nomenclature and literature. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ENTO 3000 or consent of instructor.

*This course will satisfy the diversity requirement.
Biological Sciences

ENTO 4220. Insect Physiology and Internal Anatomy (4)

Consideration of nutrition, digestion, excretion, circulation, respiration, detoxification processes, and the nervous and hormonal systems of insects. (Lecture, 3 hours; laboratory, 3 hours)

Prerequisites: ENTO 3000 and CHEM 3010, 3030 or equivalent, or consent of instructor. (Satisfies physiology elective for the major)

ENTO 4950. Selected Topics in Entomology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of entomology. Topics vary each term, thus different topics may be taken for credit.

Prerequisite: Consent of instructor.

ENTO 4970. Selected Topics offered during Winter Term (4)

MICROBIOLOGY

Lower Division

MBIO 2970. Selected Topics offered during Winter Term (4)

Upper Division

*MBIO 3010. Bacteriology (3)

Morphology, physiology, cultivation and control of bacteria and other selected microorganisms; their role as agents of change in the natural process important to industry, agriculture and health. (Lecture, 3 hours) (Formerly 2010) Prerequisites: One year of college-level biology or equivalent, and CHEM 1110 or equivalent.

MBIO 3030. Bacteriology Laboratory (2)

Laboratory experiments and demonstrations to illustrate principles and techniques of bacteriology. (Laboratory, 6 hours) (Formerly 2030) Prerequisite: MBIO 3010 or concurrent enrollment.

MBIO 4950. Selected Topics in Microbiology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of microbiology (bacteriology). Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

MBIO 4970. Selected Topics offered during Winter Term (4)

*This course will satisfy the diversity requirement.
Biological Sciences

ZOOLOGY

Lower Division

ZOOL 1050. Introduction to Zoology (4)

Introduction to basic zoological principles common to the animal kingdom. The course covers animal diversity; morphology and physiology of animal cells, tissues, and organ systems; animal reproduction and development; and principles of evolution and speciation. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: Grade of A or B in high school biology, satisfactory score on biology qualifying examination, or BIOL 1010.

ZOOL 2230. Physiology (3)

Principles of functional anatomy and physiology of organ systems with special reference to human physiology. (Lecture, 3 hours) Prerequisite: ZOOL 1050 or equivalent. (Does not satisfy the physiology elective for the major).

ZOOL 2240. Physiology Laboratory (1)

Laboratory experiments, exercises, and demonstrations illustrating the principles of physiology with special reference to human physiology. (Laboratory, 3 hours) Prerequisite: ZOOL 2230 or concurrent enrollment.

ZOOL 2250. Human Anatomy (3)

Gross morphology and anatomy of the organ systems of the human body with emphasis on functional anatomy. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: None.

ZOOL 2950. Selected Topics in Zoology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of zoology. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ZOOL 2970. Selected Topics offered during Winter Term (4)

Upper Division

ZOOL 3130. Vertebrate Embryology (5)

Comparative study of embryological stages of various selected vertebrate forms and developmental microanatomy of their organ systems. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: ZOOL 1050 or equivalent.
**Biological Sciences**

**ZOOL 3150. Comparative Anatomy of Vertebrates (5)**

Comparative study of microanatomy and gross morphology of organ systems in representative vertebrates. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: ZOOL 1050 or equivalent.

**ZOOL 3600. Introduction to Ethology (3)**

A general survey of forms of animal behavior and methods of study. (Lecture, 3 hours) Prerequisite: BOTY 1050, ZOOL 1050, or consent of instructor.

*ZOOL 3610. General Vertebrate Zoology (4)*

Natural history, behavior, ecology, environmental physiology, and zoogeography of the vertebrates with emphasis on the ecological roles of vertebrates in their natural communities. Laboratory and field studies of local forms. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: One year college-level zoology.

**ZOOL 4230. Animal Physiology (4)**

A physiological approach to the evolution of vertebrate organ systems. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: Two years of college-level biology or equivalent, and CHEM 3010, 3030, or equivalent. (Satisfies physiology elective for the major)

**ZOOL 4250. Endocrinology (2)**

A comparison of animal endocrine systems at the cell, tissue, and organ level. (Lecture, 2 hours) Prerequisites: BIOL 3310 and CHEM 3010, 3030, or equivalent.

*ZOOL 4420. Invertebrate Zoology I (4)*

Structure, classification, distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, or equivalent.

*ZOOL 4430. Invertebrate Zoology II (4)*

Continuation of ZOOL 4420. Structure and classification distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, or equivalent. ZOOL 4420 recommended.

*This course will satisfy the diversity requirement.
ZOOL 4440. General Parasitology (3)

Parasitism with emphasis on parasites of man. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: Two years of college-level biology or equivalent.

*ZOOL 4620. Herpetology (4)

Anatomy, behavior, classification, distribution, ecology, evolution, and life histories of amphibians and reptiles. (Lecture, 2 hours; laboratory, 6 hours or one field trip per week) Prerequisite: ZOOL 3150 or ZOOL 3610 or equivalent. Offered alternate years.

*ZOOL 4630. Ornithology (4)

Behavior, classification, economic importance, evolution, life histories, migration, and special modifications of birds. Identification in field and laboratory. (Lecture, 2 hours; laboratory, 6 hours or one field trip per week) Prerequisite: ZOOL 3150 or ZOOL 3610 or equivalent. Offered alternate years.

*ZOOL 4640. Mammalogy (4)

Anatomy, behavior, classification, distribution, economic value, evolution, and life histories of mammals. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ZOOL 3150 or ZOOL 3610 or equivalent. Offered alternate years.

ZOOL 4950. Selected Topics in Zoology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of zoology. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ZOOL 4970. Selected Topics offered during Winter Term (4)

*This course will satisfy the diversity requirement.
Business Administration

Thomas P. Barrett, M.A., Professor, Chair
Wayne R. Chapin, D.B.A., C.P.A., Professor
U. Rao Cherukuri, Ph.D., Professor
David O. Jenkins, D.B.A., C.P.A., Professor
Robert W. Lambright, D.B.A., Professor
Kenneth G. Young, M.B.A., C.P.A., Professor
Daryl E. Carlson, Ph.D., Associate Professor
Ronald W. Lodewyck, Ph.D., Associate Professor
Alfred G. Tsacle, M.A., Assistant Professor
Ellen K. Parisian, J.D., Visiting Lecturer

The Division of Business Administration has primary responsibility within the College for the preparation and continuing education of business administrators. The Division strives to meet this responsibility by offering a limited number of carefully selected and soundly developed programs and courses of instruction; by engaging in a continuing research effort of modest proportions in support of this instruction; and by providing appropriate service to the community.

The Division offers two degree programs: one leading to the degree Bachelor of Arts, Business Administration; the second leading to the degree Master of Business Administration (MBA). Courses in the B.A. degree program are offered both during the daytime and the evening. Courses in the MBA program are offered during the evening only. In addition to the regular on-campus course offerings, the Division schedules a number of upper division and graduate courses in the evening in Stockton. The Division also cooperates with the College's Office of Continuing Education in offering a limited but growing number of courses in business and administration designed to meet specific needs of the local community. These courses are offered as demand warrants.

THE BACHELOR OF ARTS, BUSINESS ADMINISTRATION

This program is intended to provide a basic preparation for careers in business administration within the context of a liberal education.

DEGREE OBJECTIVES

This program is designed to help each student acquire:

1. A broad, liberal education.
2. A basic understanding of the operation of a business enterprise.
3. An understanding of the environment in which business exists and of which it is a part.
4. Proficiency in analyzing, evaluating, and synthesizing managerial decisions.
5. A degree of specialized training in a selected area of concentration.

**PROGRAM STRUCTURE**

The business administration major has three principal components: (1) prerequisites to the major, (2) the business administration core, (3) the area of concentration.

The prerequisites to the major, which overlap the General Education program, provide the essential ingredients in the foundation upon which the major is later constructed. Students should schedule these courses during their freshman and sophomore years.

The business administration core, which comprises about two-thirds of the major, is a closely coordinated sequence of courses which introduces the student to the broad field of business administration, develops his knowledge of the basic organizational and economic concepts which underlie the operation of all business enterprises, and develops effective ways of thinking about complex situations encountered in business administration. Except for the integrating course in Business Policy, which must be taken as the last course in the major, students should schedule most courses in the core during their junior year.

The area of concentration, which comprises about one-third of the major, provides the opportunity for a limited amount of specialized study in a selected area of interest. Permissible areas of concentration currently available are Accounting, Finance, Information Systems, Marketing, Operations Administration, and Personnel Administration. Students may also elect to complete 12 units of adviser-approved upper division course work in business administration in lieu of a specified concentration. Course work in the area of concentration is, for the most part, restricted to the senior year.

**REQUIREMENTS FOR THE BACHELOR OF ARTS, BUSINESS ADMINISTRATION**

Students seeking the Bachelor of Arts, Business Administration must:

1. Complete all college-wide requirements for the Bachelor of Arts degree.
2. Complete the major, including the prerequisites to the major, the business administration core, and the selected area of concentration. Courses in the business administration core and the area of concentration must be completed for a letter grade.
3. Complete with a grade of C or better all courses which are specified prerequisites to advanced courses in the student's major.

4. Satisfy the Division's requirement for proficiency in English. (See below)

Completion of a minor is not required.

RECOMMENDED LOWER DIVISION PREPARATION

Prospective business administration majors should emphasize General Education during the first two years, thus laying a foundation upon which the professional program can be built. In addition, the specified prerequisites to the major should be completed. Elective courses should be chosen in the following areas: behavioral sciences, economics, English, and mathematics.

DEGREE MAJOR IN BUSINESS ADMINISTRATION

Prerequisites to the Major

ECON 2500, 2510. Principles of Economics I, II, 8 units
ENGL 1000. English Composition, 3 units
ENGL 2050. Technical and Report Writing, 3 units
MATH 1500. Finite Mathematics, 3 units
OR MATH 1910. Calculus with Applications I, 3 units
MATH 1610. Statistics for Decision Making, 3 units
BUS 2000. Introduction to Computers, 3 units
BUS 2010. Computer Programming, 3 units
BUS 2060. Business Law, 3 units
BUS 2110. Financial Accounting, 4 units
BUS 2130. Managerial Accounting, 4 units
(Students concentrating in Accounting will substitute BUS 3140, Cost Analysis, 4 units)

The Business Administration Core

BUS 3000. Quantitative Analysis for Business Decisions, 3 units
BUS 3010. Organization and Environment, 4 units
BUS 3220. Business Finance, 3 units
BUS 3410. Basic Marketing, 3 units
BUS 4080. Business Policy, 3 units
ECON 3150. National Income Analysis, 3 units
THE AREA OF CONCENTRATION

Each student will either choose an area of concentration from those listed below or complete 12 units of approved upper division course work in business administration. Students who complete one of the concentrations listed below may have this concentration noted on their permanent record.

ACCOUNTING

Accounting is a systematic way of describing and analyzing economic activity in order to provide useful information for the guidance of management and others interested in an organization. It involves recording transactions, processing and analyzing the related financial and other quantitative data, and reporting results to management and/or other interested parties.

Work in accounting generally falls into two related areas: managerial accounting--providing useful information for the guidance of management, and financial accounting--reporting results to interested parties outside the organization. Professional careers in accounting are available in business, in government, and in public accounting.

Course requirements are as follows:

BUS 3110. Intermediate Accounting I, 3 units
BUS 3120. Intermediate Accounting II, 3 units

Two of the following as approved by the major adviser:

BUS 4110. Advanced Accounting, 4 units
BUS 4120. Auditing, 4 units
BUS 4140. Income Tax Accounting, 4 units
BUS 4150. Seminar in Accounting Theory, 4 units

FINANCE

Business finance is the three-fold function of determining funds requirements, evaluating and selecting alternate sources of funds, and managing available funds in order to achieve specified objectives.

Professional careers in finance are to be found in the financial administration of industrial, commercial, utility, and government enterprises as well as in financial institutions such as commercial banks, brokerage houses, and investment companies.

Course requirements are as follows:

BUS 4210. Security Analysis & Portfolio Management, 4 units
BUS 4240. Management of Financial Institutions, 4 units
BUS 4250. Financial Management, 4 units
INFORMATION SYSTEMS

Information Systems is concerned with the restructuring or reordering of data in order to increase its usefulness and value. It involves classifying, merging, sorting, calculating, storing, retrieving, summarizing and transmitting data. High speed electronic computers are used to process data and help control the marketing, manufacturing and distribution of goods and services. Professional, computer-related career opportunities are abundant in both industry and government.

Course requirements are as follows:

BUS 3730. Structured Programming, 3 units
BUS 3740. Computer Architecture, 3 units
BUS 4720. Data Base Systems Concepts, 3 units
BUS 4770. Systems Analysis and Design, 3 units

One of the following as approved by the major adviser:

BUS 4750. Computer Based Business Simulation, 3 units
BUS 4780. Management Information Systems, 3 units

MARKETING

Marketing is the bridge which links the firm to the markets it serves. It includes measuring and interpreting market forces and market opportunities; developing products and/or services to match market opportunities; designing and managing channels of distribution; pricing, market cultivation—advertising, sales promotion, personal selling; and physical distribution. Professional careers in marketing are to be found in the marketing departments of industrial firms, in merchandising firms, and in specialized marketing firms such as advertising agencies and marketing research agencies, etc.

Course requirements are as follows:

BUS 4400. Consumer Behavior, 3 units
BUS 4420. Marketing Research, 3 units
BUS 4490. Problems in Marketing Strategy, 3 units

One of the following as approved by the major adviser:

BUS 4430. Sales Management, 3 units
BUS 4440. Industrial Marketing, 3 units
BUS 4450. Retailing, 3 units
Operations Administration is concerned with the functioning of operating systems in different types of organizations. It involves the analysis, design, implementation, operation, and control of integrated systems of manpower, material, facilities, and capital, for the conversion of inputs into desired products and/or services, and the distribution of those outputs. Emphasis is placed on the use of quantitative methodologies in the formulation and solution of management problems.

Career opportunities in the field of operations administration may be found in a variety of organizations--manufacturing firms, banks, hospitals, wholesale-retail chains, transportation firms, etc.

Course requirements are as follows:

BUS 4360. Human Problems in Administration, 3 units
BUS 4510. Production & Operations Administration, 3 units
BUS 4550. Introduction to Management Science, 4 units

One of the following as approved by the major adviser:

BUS 4520. Program Administration, 3 units
BUS 4750. Computer-Based Business Simulation, 3 units
BUS 4770. Systems Analysis & Design, 3 units

Personnel administration is the process of obtaining and maintaining the human resources of an organization. It includes manpower planning, personnel recruitment, selection and development, performance appraisal, compensation administration, and labor-management relations.

Professional careers in personnel administration may be found with government agencies, hospitals, universities, and labor unions, as well as with private businesses.

Course requirements are as follows:

Four of the following as approved by the major adviser:

BUS 4360. Human Problems in Administration, 3 units
BUS 4610. Personnel Administration, 3 units
BUS 4620. Labor Management Relations, 3 units
BUS 4640. Manpower Development, 3 units
ECON 4100. Labor Economics, 3 units
Prerequisites to the Minor

BUS 2110. Financial Accounting, 4 units
ECON 2500, 2510. Principles of Economics I, II, 8 units

Required Courses in Minor Field

BUS 3010. Organization and Environment, 4 units

Plus 9 upper division units as approved by the minor adviser.

REQUIREMENT FOR PROFICIENCY IN ENGLISH

Every student seeking a degree in business administration must meet the requirement for proficiency in English. Satisfactory completion of every course is contingent upon such proficiency. No student will be recommended for a degree in business administration unless his work in the program demonstrates satisfactory performance in the writing of English. Any student whose work reflects marked deficiency in English at any point in his degree program will be referred to the Chair of the Division for such action as seems appropriate.

COURSE PREREQUISITES

Most business administration courses have specific subject matter prerequisites for enrollment. Students must complete, with a grade of C or better, all specified prerequisites (or their equivalents) in order to qualify for enrollment in these courses.

Students who have not successfully completed the specified prerequisites for a course, but who can offer convincing evidence of having acquired the necessary background by other means, may petition the professor in charge of the course for permission to enroll. At the discretion of the Division, a qualifying examination may be required.

TEACHING CREDENTIALS

The major and the minor in Business Administration do not constitute appropriate preparation for prospective teachers of business.
MASTER OF BUSINESS ADMINISTRATION

The MBA Program provides professional education in business and administration for men and women who wish to prepare for responsible managerial and staff positions in business, various governmental agencies and other organizations, and for the recognized business professions.

DEGREE OBJECTIVES

This program is designed to help each student acquire:

1. Increased capacity for quick, flexible adjustment to rapidly changing conditions.
2. The capacity to use information effectively at the point of decision.
3. The ability to make and execute decisions.
4. Patterns of thinking and behavior in accordance with the gradually evolving standards of professional behavior.
5. The ability to engage productively with others in a variety of organizational settings.
6. The ability to relate the activities of the organization to a broad view of economic conditions and social attitudes.

PROGRAM STRUCTURE

The MBA Program has two principal components: (1) the foundation program, and (2) the advanced program.

The Foundation Program is intended to give the student the essence of the undergraduate major in Business Administration.

The Advanced Program consists of a core of 7 required courses (21 units) and an area of specialization (9 units).

Each student will develop a specialization in a functional or analytical field which will meet his or her own unique needs and interests. Students may draw upon the resources of other departments of the college, as appropriate, in developing this part of their program. The current list of courses approved for this purpose may be obtained from the Division of Business Administration.
REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION

In addition to successfully completing all required courses, candidates for the MBA must:

1. Meet all college-wide requirements for masters' degrees.
2. Satisfy the Division's requirements for proficiency in English. (See above)
3. Complete all requirements for the degree within seven years.

ADMISSION TO THE PROGRAM

Qualified individuals will be admitted to the program without regard to their undergraduate major. There are no specific course prerequisites, majors, or areas of concentration that an applicant must complete in order to qualify. However, all applicants must hold a bachelor's degree from an accredited college or university. Applicants whose native language is not English will be required to demonstrate proficiency in English by completing the Test of English as a Foreign Language (TOEFL) with a score of 550 or above prior to being admitted to the program. Personal interviews are not normally required as part of the application procedure. On occasion, interviews may be requested by the Admissions Committee when it believes that an interview would be helpful in the processing of a particular application for admission.

Conditionally Classified Standing.

The College admits qualified applicants to conditionally classified standing and advances them to classified standing when eligible. Conditionally classified graduate students are expected to make definite and timely progress toward the achievement of classified standing. Students must achieve classified standing within three calendar years from the date of first enrollment.

Classified Standing

Classified students are those who have been officially admitted to the MBA Program. Classified standing is a prerequisite for enrollment in 5000-level courses in business administration. To qualify for classified standing, students must demonstrate to the satisfaction of the Admissions Committee that they possess the potential for success in the MBA Advanced Program. In making its decisions the Admissions Committee will be guided by the following:

1. Achievement on the Graduate Management Admission Test (GMAT)—a minimum score of 450 is required.*
2. Previous academic record—with particular reference to performance in courses in the MBA Foundation Program—a 3.0 (B) average is required in all Foundation Program courses taken subsequent to the baccalaureate degree.
3. Employment experience.

*The Graduate Record Examination (GRE) is not an acceptable substitute for the Graduate Management Admission Test (GMAT).
Business Administration

4. Letters of recommendation.
5. Statement of career objectives.

Students seeking classified standing must follow the procedures obtainable in the office of the Division of Business Administration.

Credit for Previously Completed Work

Students who possess the background equivalent to that which would be obtained by successful completion of any required courses in the MBA Program will be given suitable credit for this work. For courses in the Foundation Program, this means exemption from the course; for courses in the Advanced Program, this means the substitution of a more appropriate course. Students who believe that they have completed the equivalent of any required course must provide acceptable proof of course equivalency to the coordinator of the course, who will make the final decision.

SCHOLARSHIP STANDARDS

A 3.0 (B) average is required of all students in order to remain in good standing in the program. Students who earn less than a B average in any term are subject to review of their eligibility to continue in the program. Required withdrawal from the program may result.

RESEARCH OPTION

Although the MBA Program does not require a thesis, the opportunity to carry out a research project will be made available to interested students.

METHODS OF INSTRUCTION

Instruction is offered in small classes with heavy emphasis upon student participation. Case problem analysis, simulation exercises, group projects, lecture-discussions, independent research, role playing, field trips, etc., are all employed to the extent that they are effective aids to learning.

MASTER OF BUSINESS ADMINISTRATION PROGRAM

Foundation Program (21 units)*

Required Courses:

BUS 3000. Quantitative Analysis for Business Decisions, 3 units
BUS 3220. Business Finance, 3 units
OR BUS 4250. Financial Management, 4 units
BUS 4490. Problems in Marketing Strategy, 3 units
BUS 4860. Computers in Business, 3 units

*Typically waived for students with a Bachelor's degree in Business Administration from any AACSB accredited school or CSCS.

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Business Administration

BUS 4870. Principles of Accounting, 3 units
ECON 4850. Business Economics, 3 units
MATH 4840. Mathematics for Business, 3 units

Advanced Program: (30 units)*

Required Courses (21 units)

BUS 5080. Business Policy, 3 units
BUS 5090. Business Law, Environment & Ethics, 3 units
BUS 5110. Management Accounting Seminar, 3 units
BUS 5210. Managerial Finance, 3 units
BUS 5310. Business Organization, Theory & Behavior, 3 units
BUS 5410. Marketing Management, 3 units
BUS 5510. Quantitative Business Methods, 3 units

Area of Specialization (9 units)

An adviser-approved sequence of courses tailored to meet the unique needs and interests of the individual student.
(Note: At least 3 of the 9 units must be in 5000-level courses; not more than 10 units of the 30-unit Advanced Program may be taken in any one field.)

COURSE DESCRIPTIONS

Lower Division

BUS 2000. Introduction to Computers (3)

Computers and peripheral equipment and control software are considered as an integrated data processing system. Methods of problem definition and solution are explored along with the nature of data structures. Computer programming techniques are introduced. (Lecture, 2 hours; laboratory, 2 hours)

BUS 2010. Computer Programming (3)

A continuation of BUS 2000, with emphasis on computer programming in business applications. (Lecture, 1 hour; laboratory, 4 hours) Prerequisite: BUS 2000 or consent of instructor.

BUS 2060. Business Law (3)

Introduction to the law applicable to business firms and their operation; history and philosophy; sources of law; legal reasoning and procedure; law of contracts, agency.

*Students who possess the background equivalent to that which would be obtained by successful completion of any required course in the Advanced Program will substitute a more appropriate course.
**Business Administration**

BUS 2110. Financial Accounting (4)

An introduction to the principles of analyzing, recording, summarizing, communicating, and interpreting financial data of the business firm. Prerequisite: Sophomore standing.

BUS 2130. Managerial Accounting (4)

The analysis, use, interpretation, and synthesis of accounting, and financial data for and by management for planning, control, and decision-making purposes. Designed for students pursuing a concentration other than accounting; credit not applicable to the undergraduate accounting concentration. Prerequisite: BUS 2110 or consent of instructor.

BUS 2950. Selected Topics in Business Administration (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in business. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

BUS 2970. Selected Topics offered during Winter Term (4)

**Upper Division**

BUS 3000. Quantitative Analysis for Business Decisions (3)

Introduction to the application of selected optimization techniques to the solution of complex business problems; the use of quantitative information obtained from accounting and statistical sources in decision making for business. Prerequisites: MATH 1610, 1500 or 1910, BUS 2000; or MATH 4840.

BUS 3010. Organization and Environment (4)

Examination of the complex relationships among environment, technology, and organizational design, structure, and performance. Attempts to provide an understanding of the organizational characteristics which enable firms to deal effectively with different environments. Prerequisites: ECON 2500, 2510, and junior standing; or consent of instructor.

BUS 3060. Advanced Business Law (3)

Law of business; emphasis on laws relating to sales, personal property, bailments, negotiable instruments, partnerships, corporations, real property, and insurance. Prerequisite: BUS 2060.
BUS 3110. Intermediate Accounting I (3)

Accounting theory, development of accounting principles, and their application to income determination and presentation of financial position for the business firm. Prerequisite: BUS 2110.

BUS 3120. Intermediate Accounting II (3)

A continuation of Intermediate Accounting I with particular emphasis on accounting for facilities investment, borrowed and equity capital, and managerial analysis of financial data. Prerequisite: BUS 3110 or consent of instructor.

BUS 3140. Cost Analysis (4)

Principles and objectives of cost accounting, including budgeting, estimated and standard costs, distribution and administrative costs, differential costs, profit planning, direct costs, and pricing policies. Prerequisites: BUS 2110, MATH 1500 or 1910, and MATH 1610.

BUS 3220. Business Finance (3)

Analysis of investment opportunities, determination of funds requirements, sources and uses of management. Prerequisites: BUS 2130 or 3140, concurrent enrollment permitted; or BUS 4870.

BUS 3310. The Administrative Process (3)

The nature of administration, its role, responsibilities, and functions. Administration is treated as a distinct activity applicable to all types of organizations—not just the business organization. Prerequisite: Junior standing.

BUS 3410. Basic Marketing (3)

Marketing process with emphasis on the management point of view. Consideration is given to the role played by marketing in the economy, dynamics of consumer motivation and behavior, and problems confronted by the business firm in establishing an overall marketing program. Prerequisite: BUS 3010, concurrent enrollment permitted.

BUS 3730. Structured Programming (3)

Solving business problems using sorting techniques, internal tables, list and tree structures, dynamic storage allocation, modular programming and other advanced programming concepts. (Formerly 4730) Prerequisites: BUS 2000, 2010.
BUS 3740. Computer Architecture (3)

A survey of basic computer architecture including one-address machines, two-address machines, stack machines, addressing methods, memories, I/O multiprogramming, multiprocessing, and microprogramming. The course will also include preparation of a hardware evaluation study. Prerequisites: BUS 2000, 2010 or MATH 2000.

BUS 4010. Readings in Business Administration (2)

Directed readings in a selected area within the broad field of business administration. May be repeated for a maximum of 4 units. Prerequisites: Consent of instructor and approval of division chair.

BUS 4080. Business Policy (3)

Consideration of the business enterprise as a total system in a total environment. Analysis and evaluation of the problems and opportunities which face the chief executive of a business firm. Emphasis will be on the formulation and implementation of corporate strategy. Extensive use of the technique of case problem analysis. Prerequisite: Completion of all other courses in the business administration core.

BUS 4110. Advanced Accounting (4)

Accounting principles applied to accounting for partnerships, installment sales, consignments, insolvency, estates, trusts, and business combinations. Prerequisite: BUS 3120 or consent of instructor.

BUS 4120. Auditing (4)

Standards and procedures broadly applied to examination of financial statements, including a consideration of the field of public accounting, professional ethics, internal controls, preparation of working papers, and audit reports. Prerequisites: BUS 3110, 3120.

BUS 4140. Income Tax Accounting (4)

History and philosophy of federal income tax law and regulations and procedures for determining income tax liability of business firms and individuals. Prerequisite: BUS 3120 or consent of instructor.

BUS 4150. Seminar in Accounting Theory (4)

History and development of accounting theory; accounting standards, conventions, and principles. Current problems, including a survey of current literature. Prerequisites: BUS 3110, 3120.
BUS 4210. Security Analysis and Portfolio Management (4)

A basic treatment of the problems of security analysis (with special attention to determination of security values and investment timing) and of portfolio selection and management with special attention to the investment problems of the individual investor. (Field trips) Prerequisite: BUS 3220.

BUS 4240. Management of Financial Institutions (4)

Analysis of the various types of financial institutions and money markets, both banking and non-banking; emphasis on supply of funds; differentiating functions and practices; interrelationships of financial intermediation and business firms. (Field trips) Prerequisite: BUS 3220 or ECON 3320.

BUS 4250. Financial Management (4)

Analysis of financial problems and policies of non-financial firms. Includes consideration of both long and short term capital problems. Extensive use of case problems and simulation exercises. Prerequisite: BUS 3220 or 4870.

BUS 4360. Human Problems in Administration (3)

The behavior of individuals and groups in administrative organizations. Emphasis on empirically derived knowledge about human behavior and its meaning to the administrator. Prerequisite: BUS 3010 or 3310 or consent of instructor.

BUS 4400. Consumer Behavior (3)

The consumer in the marketing process. Emphasis on the manner in which consumers approach decision-making situations and the manner in which predisposition, group influence, and time affect the decision-making process. Prerequisite: BUS 3410.

BUS 4420. Marketing Research (3)

Focus on the management of marketing information as a part of the decision-making process. Emphasis on application of research concepts, methods of analysis, and knowledge of the behavioral and quantitative disciplines in establishing an overall marketing program. (Field trips) Prerequisites: BUS 3000, 3410.

BUS 4430. Sales Management (3)

Planning, direction, and control of sales personnel and sales promotion activities. Sales management is approached as an integral element of overall marketing program of a firm. Prerequisite: BUS 3410.
BUS 4440. Industrial Marketing (3)

Analysis of the managerial activities in marketing of industrial goods. Coverage of market information, market planning, distribution methods, pricing strategies, and promotional problems in industrial marketing. Prerequisite: BUS 3410.

BUS 4450. Retailing (3)

Development of trends, organization, and geographic structure of retailing. Emphasis on management of location, layout, planning and budgeting, and control principles and policies of store operation; pricing, personnel, and customer services management. (Field trips) Prerequisite: BUS 3410.

BUS 4490. Problems in Marketing Strategy

Analysis of management decisions arising from the marketing tasks of the firm. Role of the marketing executive in use of research, the elements of marketing strategy; product, channels of distribution, promotion, price, to arrive at policy decisions. Prerequisites: BUS 3410, with 4400, 4420 recommended; or graduate standing or consent of instructor.

BUS 4510. Production and Operations Administration (3)

Production problems of a managerial nature: production planning and control, product development, simplification and standardization, procurement, materials handling, methods improvement, impact of technological change. (Field trips) Prerequisites: BUS 3000, 3010.

BUS 4520. Program Administration (3)

Planning, organizing, administration, and control of programs. Administration of network systems. Includes programs such as development and introduction of new products, facilities expansion and relocation, construction projects, etc. (Field trips) Prerequisites: BUS 3000, 3010.

BUS 4550. Introduction to Management Science (4)

Analysis by quantitative techniques for managerial planning and decision making. The modeling process; linear, integer, quadratic and dynamic programming; system simulation. Application of statistical methods to problems in business administration. Prerequisite: BUS 3000 or MATH 4840.

BUS 4610. Personnel Administration (3)

Formulation and administration of policies designed to obtain and to maintain the human resources of the organization. Manpower
planning, personnel selection and development, performance evaluation, and evaluation of the personnel program. Prerequisite: BUS 3010 or consent of instructor.

BUS 4620. Labor Management Relations (3)

Perspectives on the internal relationship between management and unionized employees. Prerequisite: BUS 4610.

BUS 4640. Manpower Development (3)

Manpower development as a managerial responsibility. Manpower planning, performance appraisal and career path development, training and development of personnel. Coordination of training and development with recruitment, compensation, and other personnel functions. (Formerly 4630) Prerequisite: BUS 4610 or consent of instructor.

BUS 4720. Data Base System Concepts (3)

Data structures, data independence, file organization, indexing techniques, queries, data sublanguages, relational data model, hierarchical data model, network (DBTA) data model. Prerequisites: BUS 2000, 2010.

BUS 4750. Computer-Based Business Simulation (3)

Study of computer simulation techniques as applied to business administration and management science. (Formerly 4530) Prerequisites: BUS 2000, 2010.

BUS 4770. Systems Analysis and Design (3)

Tools and techniques of system studies, problem definition, feasibility study, systems design and implementation. Case studies. (Formerly 4370) Prerequisites: BUS 2000, 2010, 3740, 4720.

BUS 4780. Management Information Systems (3)

Theory of computer based management information systems. Case studies. (Formerly 4180) Prerequisite: BUS 4770.

BUS 4860. Computers in Business (3)

An introduction to computers, peripheral equipment and software capability within the business firm, including systems analysis and computer programming technology. The course will make extensive use of the computer. Prerequisite: Graduate standing.
**Business Administration**

BUS 4870. Principles of Accounting (3)

The principles, concepts, and conventions employed in measuring business transactions and analyzing, interpreting, and reporting results to management and other users of financial information. Prerequisite: Graduate standing.

BUS 4880. Organizational Behavior (3)

Study of human behavior in complex social organizations. Analysis of organization systems and managerial actions in terms of their influence on behavior patterns. Prerequisite: Graduate standing.

BUS 4890. Business Forecasting and Planning (3)

Developing strategic plans with emphasis on product-market relationships. Goal setting, objective specification, environmental definition and assessment, analysis and evaluation of the competitive situation, formulation of plans. Prerequisite: Graduate standing.

BUS 4950. Selected Topics in Business Administration (1-5)

(Topics to be specified in Class Schedule)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

BUS 4970. Selected Topics offered during Winter Term (4)

BUS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of division chair.
BUS 5010. Readings in Business Administration (2)

Directed readings in a selected area within the broad field of business administration. May be repeated for a maximum of 4 units. Prerequisites: Consent of instructor and approval of division chair.

BUS 5050. Seminar in the Management of International Business (3)

This seminar focuses on selected specific problems involved in the management of a company which operates in more than one country. Emphasis may vary from term to term in accordance with the interests of the students involved. Prerequisite: Classified graduate standing; ECON 4410 recommended.

BUS 5080. Business Policy (3)

The formulation, implementation, and administration of corporate strategy. Study, through the technique of case problem analysis of the pattern of goals and objectives which define a firm, and of the means of the execution of strategy in a specific situation. Prerequisites: BUS 5090, 5110, 5210, 5310, 5410, and 5510.

BUS 5090. Business Law, Environment & Ethics (3)

Examination of problems and issues involving the interaction and adaptation of business and its legal, political, ethical, and social environment. The course is developed around a series of current problems chosen to raise some major issues. Prerequisite: Classified graduate standing; BUS 5310 recommended.

BUS 5110. Management Accounting Seminar (3)

The application of managerial accounting techniques and procedures to the solution of managerial problems in all functional areas of business. Prerequisites: Classified graduate standing, and MATH 4840, BUS 4870; ECON 4850 recommended.

BUS 5210. Managerial Finance (3)

This course focuses attention on financial management of business enterprises and its relation to other functional areas of management and to general business policy. Cases and problems provide application of theory to financial decisions involving cash flow management, capital structure planning, capital costs, and capital budgeting, dividend policy, and valuation of enterprises operating for profit. Prerequisites: BUS 3220 or 4250, ECON 4850, classified graduate standing.
Business Administration

BUS 5310. Business Organization, Theory and Behavior (3)

Advanced study of complex business organizations. Analysis of organization systems and managerial actions in terms of their influence on patterns of behavior. Prerequisite: Classified graduate standing.

BUS 5410. Marketing Management (3)

Emphasis on managerial decision-making, problem solving to formulate and administer effective marketing activities. Marketing as a total system designed to plan, price, distribute and promote goods and services to users. Major emphasis on case method covering buyer behavior, product, channel of distribution, pricing and promotion. Prerequisites: Classified graduate standing, or BUS 4490, ECON 4850 and permission of instructor.

BUS 5420. Seminar in Marketing (3)

Advanced study in selected areas within the marketing field. Course content will change from term to term as indicated in the class schedule. Among the subjects to be included are: Marketing Institutions, Product Management, International Marketing, Current Concepts and Emerging Issues. Each of these subjects may be taken for credit under this course number. Prerequisite: BUS 5410.

BUS 5510. Quantitative Business Methods (3)

Analysis by quantitative techniques for managerial planning and decision making. The modeling process; linear, integer, quadratic and dynamic programming; system simulation. Application of statistical methods to problems in Business Administration. Prerequisites: Classified graduate standing and BUS 3000 or 4550.

BUS 5950. Selected Topics in Business Administration (1-5)  
(Topics to be specified in Class Schedule)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

BUS 5970. Selected Topics offered during Winter Term (4)

BUS 5980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of division chair.
Chemistry

Alexander J. Pandell, Ph.D., Professor, Chair
Hobart G. Hamilton, Jr., Ph.D., Professor
Jimmy W. Hinkson, Ph.D., Professor
Evan M. Thompson, Ph.D., Professor
John Almy, Ph.D., Associate Professor
James E. Byrd, Ph.D., Associate Professor
Michael J. Perona, Ph.D., Associate Professor

The Department of Chemistry offers the degrees Bachelor of Arts and Bachelor of Science, Chemistry. The student should consult with his departmental adviser to determine which degree is more suitable for his career objective. A student may also qualify for a concentration in the Environmental Sciences in addition to his degree in chemistry.

BACHELOR OF SCIENCE

This program is accredited by the American Chemical Society (ACS) and provides the comprehensive training in chemistry necessary for the student who wishes to become a professional chemist in industry or government, or who plans to attend graduate school. Students wishing to receive a degree accredited by the American Chemical Society must complete one year of German or computer science in addition to the major requirements for the Bachelor of Science degree listed below. Students obtaining an accredited degree are eligible to join the ACS immediately upon graduation.

BACHELOR OF ARTS

In contrast to the B.S. program, the Bachelor Arts program is designed for those seeking to enter professions requiring moderate training in chemistry combined with training in other areas. Examples are health professions such as medicine, optometry, dentistry, medical technology, pharmacy, physical therapy, and veterinary medicine. Technical sales writing, chemical patent law, library work, and high school teaching would be examples of other careers for Bachelor of Arts graduates. The student will be advised to take specific courses depending on his field of interest; for example, ZOOL 1050, CHEM 4010, 4400, and ZOOL 3130 or ZOOL 3150, or both, in preparation for dental, medical, or veterinary medical schools. Further information on the health professions area can be obtained from the Health Sciences Advisory Committee.

An approved single subject waiver is available for students who wish to declare Physical Sciences as their subject matter teaching area. Students must plan their academic programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.
REQUISITES FOR THE BACHELOR OF ARTS OR BACHELOR OF SCIENCE, CHEMISTRY

Chemistry majors are to:
1. Complete the college requirements for the bachelor's degree.
2. Complete prerequisites to the major: CR grades will not be accepted for chemistry course prerequisites.
3. Complete a major of not less than 24 upper division units as specified for the Bachelor of Arts degree, or 31 upper division units as specified for the Bachelor of Science degree; of these, no more than 8 units of CR graded course work may apply toward the major. Completion of a minor is not required.

BACHELOR OF ARTS DEGREE IN CHEMISTRY

Prerequisites to the Major:

Required courses in the major field:
CHEM 1100, 1110. Principles of Chemistry I, II, 10 units
CHEM 2010. Quantitative Analysis & Basic Instrumental Techniques, 4 units

Required courses in supporting fields:
MATH 1910, 1920. Calculus with Applications I, II, 6 units
OR
MATH 1410, 1420. Calculus I, II, 8 units

Either of the following sequences:
PHYS 1100, 1110. Basic Physics I, II, 10 units
OR
PHYS 2250, 2260. General Physics I, II, 8 units
PHYS 2350, 2360. General Physics Laboratory I, II, 2 units

The Major

CHEM 3010, 3020. Organic Chemistry I, II ........ 6
CHEM 3030, 3040. Organic Chemistry Lab I, II .... 4
CHEM 4010. Physical Chemistry I ............... 3
CHEM 4021. Elements of Chemical Kinetics &
Molecular Spectroscopy ..................... 1
CHEM 4030. Physical Chemistry Lab ............ 1
CHEM 4100. Instrumental Analysis .............. 4

At least 5 credit hours from the following courses:
CHEM 4020. Physical Chemistry II, 3 units
CHEM 4030. Physical Chemistry Lab, 1-2 units
CHEM 4200. Advanced Inorganic Chemistry, 3 units
CHEM 4300. Advanced Organic Chemistry, 3 units
CHEM 4400. Biochemistry, 3 units
CHEM 4410. Biochemistry Laboratory, 1 unit
**Chemistry**

**Units**

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<td>CHEM 4940</td>
<td>Chemistry Internship, 1-3 units</td>
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<td>CHEM 4950</td>
<td>Selected Topics in Chemistry, 1-5 units</td>
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<td>CHEM 4960</td>
<td>Research Seminar, 1 unit</td>
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<td>CHEM 4980</td>
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**BACHELOR OF SCIENCE DEGREE IN CHEMISTRY**

Prerequisites to the Major:

Required courses in the major field:

CHEM 1100, 1110. Principles of Chemistry I, II, 10 units
CHEM 2010. Quantitative Analysis and Basic Instrumental Techniques, 4 units

Required courses in supporting fields:

MATH 1410, 1420. Calculus I, II, 8 units
MATH 2410. Multivariate Calculus, 4 units
MATH 2500. Elementary Linear Algebra, 3 units
   or MATH 3250. Ordinary Differential Equations, 4 units
PHYS 2250, 2260. General Physics I, II, 8 units
PHYS 2350, 2360. General Physics Laboratory, I, II, 2 units

**The Major**

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<td>Organic Chemistry Laboratory I, II</td>
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<td>CHEM 4010, 4020</td>
<td>Physical Chemistry I, II</td>
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<td>CHEM 4100</td>
<td>Instrumental Analysis</td>
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<td>CHEM 4200</td>
<td>Advanced Inorganic Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

At least 6 credit hours from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 4300</td>
<td>Advanced Organic Chemistry, 3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4400</td>
<td>Biochemistry, 3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4410</td>
<td>Biochemistry Laboratory, 1 unit</td>
<td></td>
</tr>
<tr>
<td>CHEM 4940</td>
<td>Chemistry Internship, 1-3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4950</td>
<td>Selected Topics in Chemistry, 1-5 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4960</td>
<td>Research Seminar, 1 unit</td>
<td></td>
</tr>
<tr>
<td>CHEM 4980</td>
<td>Individual Study, 1-4 units</td>
<td></td>
</tr>
<tr>
<td>PHYS 3520</td>
<td>Modern Physics, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHYS 4450</td>
<td>Nuclear Physics, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHYS 4530</td>
<td>Thermal &amp; Statistical Physics I, 3 units</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total**                                          **31**
Chemistry

One of the following sequences as approved by the student's major adviser should be taken by those students wishing an ACS accredited degree.

GERM 1010, 1020. Elementary German I, II, 8 units
OR MATH 2000, 2010. Introduction to Computers; Computer Programming, 5 units

PHYSICAL SCIENCE WAIVER PROGRAM WITH A BACHELOR OF ARTS DEGREE IN CHEMISTRY

<table>
<thead>
<tr>
<th>Lower Division</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010. Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1100, 1110. Principles of Chemistry I, II</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 2010. Quantitative Analysis &amp; Basic Instrumental Techniques</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 2100. Principles of Geology (lec &amp; lab)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1910, 1920. Calculus with Applications I, II</td>
<td>6-8</td>
</tr>
<tr>
<td>OR MATH 1410, 1420. Calculus I, II</td>
<td></td>
</tr>
<tr>
<td>PHSC 2100. Atmosphere, Weather, and Climate</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2250, 2260. General Physics I, II</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 2350, 2360. General Physics Lab</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper Division</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 3000. Contemporary Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3010, 3020. Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 3032, 3042. Organic Chemistry Lab I, II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 4010. Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 4021. Elements of Chemical Kinetics and Molecular Spectroscopy</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 4030. Physical Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 4100. Instrumental Analysis</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 3520. Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>At least 5 upper division elective units in Chemistry selected from the following:</td>
<td>5</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>CHEM 4020. Physical Chemistry II, 3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4030. Physical Chemistry Lab, 1-2 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4200. Advanced Inorganic Chemistry, 3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4300. Advanced Organic Chemistry, 3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4400. Biochemistry, 3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4410. Biochemistry Lab, 1 unit</td>
<td></td>
</tr>
<tr>
<td>CHEM 4940. Chemistry Internship, 1-3 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4950. Selected Topics in Chemistry, 1-5 units</td>
<td></td>
</tr>
<tr>
<td>CHEM 4960. Research Seminar, 1 unit</td>
<td></td>
</tr>
<tr>
<td>CHEM 4980. Individual Study, 1-4 units</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

176
DEGREE MINOR IN CHEMISTRY

Consists of 18 units in chemistry as approved by the department, which must include at least 8 upper division units.

ENVIRONMENTAL SCIENCES CONCENTRATION

A chemistry major may complete additional requirements in the sciences and mathematics to qualify for a concentration in Environmental Sciences. This program requires study in biological sciences, chemistry, mathematics, and physical sciences, along with an environmental seminar and investigation of an environmentally related problem. Further details are found in the Environmental Sciences section of this catalog.

LIBERAL STUDIES CONCENTRATION IN CHEMISTRY

The following courses are required for a concentration in Chemistry within the Liberal Studies degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>*CHEM 1110</td>
<td>Principles of Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 3010, 3020</td>
<td>Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 3030, 3040</td>
<td>Organic Chemistry Lab I, II</td>
<td>2</td>
</tr>
<tr>
<td>Upper division electives in chemistry as approved by the department</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

Lower Division

CHEM 1000. Chemistry in the Modern World (3)

Basic principles of chemistry as applied to the world around us. A descriptive course designed to satisfy both the General Education requirements of the non-science student and the chemistry requirement for the Multiple Subjects Waiver program. Not open to students with previous college chemistry. (Lecture, 3 hours)

CHEM 1100. Principles of Chemistry I (5)

Fundamental principles of chemistry emphasizing atomic structure, periodic properties, theories of bonding, kinetic theory of
Chemistry

... gases, solution chemistry. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisite: Two years of high school algebra or consent of instructor.

CHEM 1110. Principles of Chemistry II (5)

A continuation of CHEM 1100, emphasizing gaseous and ionic equilibria, electrochemical principles, thermodynamics, radiochemistry, and descriptive chemistry of the elements. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: CHEM 1100.

CHEM 1200. The Consumer and Chemistry (2)

Basic principles of chemistry will be developed and applied to areas of interest to the consumer. The chemistry of cleaning products, textiles, medicines, etc., will be emphasized to illustrate the principles of chemistry and to promote consumer awareness. (Lecture, 2 hours)

CHEM 2010. Quantitative Analysis & Basic Instrumental Techniques (4)

Principles and practice of volumetric, gravimetric, and instrumental methods of analysis. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: CHEM 1110.

CHEM 2400. The Science of Winemaking (4)

A basic and practical introduction to the science of winemaking. Topics to include fermentation, history of the wine industry, and related topics. Basic chemical concepts will be developed to facilitate the understanding of the subject matter. (Lecture, 4 hours) Prerequisite: None.

CHEM 2800. Survey of Organic Chemistry (5)

A basic introduction to the chemistry of carbon compounds encompassing the properties and reactions of aliphatic and aromatic compounds including carbohydrates, amino acids and proteins. This course is intended for students who do not require a more rigorous one-year course. Chemistry majors, minors and students planning careers in the health professions (pre-medicine, etc.) should enroll in the CHEM 3010, 3020 series. Consult your adviser before enrolling in this course. (Lecture, 4 hours; laboratory, 3 hours) Prerequisite: CHEM 1110.

CHEM 2950. Selected Topics in Chemistry (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of chemistry. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.
CHEM 2970. Selected Topics offered during Winter Term (4)

**Upper Division**

CHEM 3010. Organic Chemistry I (3)

Structure, properties, reactions, and stereochemistry of carbon compounds. Reaction mechanisms. Applications of spectroscopy to organic molecules. Carbohydrates, amino acids, and proteins. (Lecture, 3 hours) Concurrent enrollment in CHEM 3030 required. Prerequisite: CHEM 1110.

CHEM 3020. Organic Chemistry II (3)

Continuation of CHEM 3010. (Lecture, 3 hours) Concurrent enrollment in CHEM 3040 required. Prerequisite: CHEM 3010.

CHEM 3030. Organic Chemistry Laboratory I (1-2)

Basic laboratory techniques, simple organic syntheses, isolation of natural products, multi-step syntheses, vapor phase chromatography, thin-layer chromatography, qualitative organic analysis, spectroscopic applications to structure determination. (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 3010 required. Prerequisite: CHEM 1110.

CHEM 3040. Organic Chemistry Laboratory II (1 or 2)

Continuation of CHEM 3030. (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 3020 required. Prerequisite: CHEM 3030.

CHEM 4010. Physical Chemistry I (3)

The three laws of thermodynamics, equilibrium, critical properties of gases, osmosis, phase rule, electrochemistry, chemical kinetics, molecular structure, and spectroscopy. (Lecture, 5 hours) Prerequisites: One year of calculus and one year of physics.

CHEM 4020. Physical Chemistry II (3)

Continuation of CHEM 4010. (Lecture, 3 hours) Concurrent enrollment in CHEM 4030 required. Prerequisites: MATH 1420, CHEM 4010.

CHEM 4021. Elements of Chemical Kinetics & Molecular Spectroscopy (1)

An introduction to chemical kinetics and molecular spectroscopy. The course is intended for BA chemistry majors and others needing a nonrigorous survey of these topics, and is not open to BS chemistry majors. Prerequisite: CHEM 4010.
CHEM 4030. Physical Chemistry Laboratory (1 or 2)

Laboratory applications of the principles of physical chemistry (Laboratory, 3 or 6 hours) Prerequisites: CHEM 4010 and concurrent enrollment in CHEM 4020 if the course is taken for 2 units. CHEM 4010 only, if the course is taken for 1 unit.

CHEM 4100. Instrumental Analysis (4)

Instrumental methods of chemical analysis including discussion of the theory and application of nuclear magnetic resonance, electron spin resonance, mass spectroscopy, infrared, Raman, visible-ultraviolet and atomic absorption spectroscopy; flame photometry; X-ray diffraction, neutron activation and analysis; ESCA; specific ion electrode methods; gas, liquid, and ion-exchange chromatography. (Lecture, 2 hours; laboratory, 6 hours) Prerequisites: CHEM 2010, 3020 and 4010, or consent of instructor.

CHEM 4200. Advanced Inorganic Chemistry (3)

Atomic structure, periodic properties, theories of bonding, structure, introduction to coordination chemistry, and reactions of representative elements. (Lecture, 3 hours) Prerequisite: CHEM 4010 or consent of instructor.

CHEM 4300. Advanced Organic Chemistry (3)

Chemical kinetics, structure-reactivity relationships, molecular orbital theory, orbital symmetry, reactive intermediates, rearrangements and neighboring group effects, nucleophilic aliphatic substitution, photochemistry. (Lecture, 3 hours) Prerequisite: CHEM 3020.

CHEM 4400. Biochemistry (3)

The chemistry, metabolism, enzymology, and energy relationships of important biological compounds and processes. (Lecture, 3 hours) Prerequisite: CHEM 2800 or 3020 or consent of instructor.

CHEM 4410. Biochemistry Laboratory (1)

An introduction to biochemical techniques including chromatography, enzyme purification, spectrophotometry, and fluorimetry. (Laboratory, 3 hours) Prerequisite: Concurrent enrollment in CHEM 4400 or consent of instructor.

CHEM 4940. Chemistry Internship (2-4)

This course is designed for students in chemistry who wish to apply their educational experience to a practical situation in a public or private agency. Prerequisite: CHEM 2010, 3020, 3042 and consent of Department Internship Coordinator.
CHEM 4950. Selected Topics in Chemistry (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of chemistry. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

CHEM 4960. Research Seminar (1)

The presentation of research results or topical literature surveys by students and visiting scientists. May be repeated for a total of 2 units. Prerequisite: Senior standing or consent of instructor.

CHEM 4970. Selected Topics offered during Winter Term (4)

CHEM 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

CHEM 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
Child Development

Max C. Norton, Ph.D., Coordinator
Professor of Speech & Communication Science

The Bachelor of Arts degree program in Early Child Development is an interdisciplinary based program which provides the student with a background of skills and knowledge which are designed to prepare him for the following career-oriented options:

1. To work in Child Development programs preparatory to the awarding of the certificate for instruction or supervision of Child Development Centers.
2. To constitute a basis for advanced study leading to specialized credentials in Early Childhood Education and Learning Disabilities.
3. To provide an area of concentration for the Liberal Studies degree prerequisite, for the Multiple Subject Teaching Credential. (See Liberal Studies)

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE IN CHILD DEVELOPMENT

1. Complete General Education requirements for the Bachelor of Arts degree.
2. Complete 11 units of lower division prerequisites at an accredited community college in the following curricular concentrations in Child Development:
   a. Four units in early childhood education practicum and child development laboratory experience.
   b. Seven units in course dealing with child growth and development including physical, motoric, cognitive, social and emotional development.
3. Complete the major requirements of not less than 34 units of approved upper division course work.

*Psychology 3130 and 3170 are required for all students who have not completed an acceptable A.A. Child Development/Early Childhood degree program or an A.A. Degree and a Child Development Certificate.

* Students completing approved two-year lower division program in Child Development/Early Childhood Education are not required to complete PSYC 3130 and 3170.
**Child Development**

**CORE PROGRAM - 20 required units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 3160</td>
<td>Intro. to Psychological Testing</td>
<td>3</td>
<td>E, G</td>
</tr>
<tr>
<td>PSYC 3700</td>
<td>Intro. to Learning &amp; Motivation</td>
<td>3</td>
<td>G</td>
</tr>
<tr>
<td>SPCH 3010</td>
<td>Language &amp; Speech Development</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td>SPCH 4721</td>
<td>Practicum in Developmental Assessment, 3 units</td>
<td></td>
<td>A, E, F, G</td>
</tr>
<tr>
<td>SPCH 4730</td>
<td>Field Experience in Management of Child Development Programs, 2 units</td>
<td></td>
<td>A, E, F, G</td>
</tr>
</tbody>
</table>

The following two-core courses are required, but will be waived for students who have completed an acceptable A.A. Child Development degree program or an A.A. Degree and a Child Development Certificate.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 3130</td>
<td>Human Development</td>
<td>3</td>
<td>F, I</td>
</tr>
<tr>
<td>PSYC 3170</td>
<td>Early Cognitive Development</td>
<td>3</td>
<td>G, I</td>
</tr>
</tbody>
</table>

**ELECTIVES - 14 units from the following courses:**

No more than 6 units of electives may be earned in a given curricular objective module.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 4602</td>
<td>Children's Literature</td>
<td>3</td>
<td>A, B</td>
</tr>
<tr>
<td>PHED 4400</td>
<td>Kinesiology</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>PHED 4500</td>
<td>Physiology of Exercise</td>
<td>3</td>
<td>C, D</td>
</tr>
<tr>
<td>PSYC 3120</td>
<td>Human Development Laboratory</td>
<td>1</td>
<td>F</td>
</tr>
<tr>
<td>*PSYC 3130</td>
<td>Human Development</td>
<td>3</td>
<td>D, E, F, G</td>
</tr>
<tr>
<td>*PSYC 3170</td>
<td>Early Cognitive Development</td>
<td>3</td>
<td>F</td>
</tr>
<tr>
<td>PSYC 3300</td>
<td>Social Psychology Laboratory</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>PSYC 3310</td>
<td>Intro. to Social Psychology</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>PSYC 3320</td>
<td>Introduction to Personality</td>
<td>3</td>
<td>F, G</td>
</tr>
</tbody>
</table>

*Students completing approved two-year lower division program in Child Development/Early Childhood Education are not required to complete PSYC 3130 and 3170.

1Curricular Objective Modules

A - Development of Language Abilities  
B - Aesthetic Concepts  
C - Health and Nutrition  
D - Physical Development  
E - Social Development  
F - Emotional Development  
G - Cognitive Development

In the Core Program listed above, the Curricular Objective Modules applicable to each of the courses are noted.
Child Development

Curricular Objectives
Module:

PSYC 4130. Psychological Disorders of Children, 3 units F, G
PSYC 4150. Learning Disabilities, 3 units F, G
PSYC 4720. Experimental Analysis of Behavior, 3 units E, F, G
SOCL 3150. The Family, 3 units E
SOCL 3160. Sociology of Youth, 3 units E
SPCH 3000. Phonetics, 3 units A, G
SPCH 3020. Structural & Psycholinguistics, 4 units A
SPCH 3400. Oral Interpretation of Children's Literature, 3 units A, B
SPCH 3610. Introduction to Communication Disorders, 3 units A
SPCH 3911. Communication Projects, 2 units A

LIBERAL STUDIES CONCENTRATION IN CHILD DEVELOPMENT

In accordance with the objectives of the program, the Child Development degree is designed to provide a major area of concentration for students who are majoring in Liberal Studies.

The following courses comprise the Child Development concentration: 26 semester units

REQUIRED COURSES:

PSYC 2020. Introduction to Psychological Methods, 3 units
*PSYC 3130. Human Development, 3 units
*PSYC 3170. Early Cognitive Development, 3 units
SPCH 4721. Practicum in Developmental Assessment, 3 units
SPCH 4730. Field Experience in Management of Child Development Programs, 2 units

ELECTIVES:

PSYC 3120. Human Development Laboratory, 1 unit
PSYC 3700. Introduction to Learning & Motivation, 3 units
PSYC 4150. Learning Disabilities, 3 units
PSYC 4720. Experimental Analysis of Behavior, 3 units
SOCL 3160. Sociology of Youth, 3 units
SPCH 3000. Phonetics, 3 units
SPCH 3020. Structural & Psycholinguistics, 4 units
SPCH 3400. Oral Interpretation of Children's Literature, 3 units
SPCH 3610. Introduction to Communication Disorders, 3 units
The Department of Communication Studies offers the degrees of Bachelor of Arts and Master of Arts, Speech. Concentrations in Communication Disorders and Organizational Communication are available in addition to the general speech curriculum in the B.A. program. The M.A. program provides concentration in Communication Disorders. Overall objectives of the program are to provide the student with opportunities to fulfill the following academic and professional needs:

1. To gain understanding of theories and processes of oral communication as a necessary part of one's education in the liberal arts.
2. To gain specialized knowledge and proficiencies in the communicative arts and sciences for entrance into such professional programs as public school teaching, special education, clinical speech pathology and audiology; and such professions as the ministry, law or business and industry.

The College offers the degree Bachelor of Arts, Social Sciences, with an interdepartmental major in speech and any other two disciplines within the social sciences. (For further information, see Social Sciences.)

The degree Bachelor of Arts, Liberal Studies, is also offered with speech as an area of concentration. (For further information, see Liberal Studies.)

**REQUIREMENTS FOR THE BACHELOR OF ARTS, SPEECH**

Speech majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 30 upper division units; of these, no more than 10 units of CR-graded course work may apply toward the major.
Completion of a minor is not required.
**Communication Studies**

**DEGREE MAJOR IN SPEECH**

Prerequisite to the Major

SPCH 2011. Approaches to Human Communication, 4 units
One lower division course in speech as approved by major adviser, 3 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 3000. Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3010. Language and Speech Development</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3100. Dyadic and Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>OR SPCH 4100. Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3900. Introduction to Research Methods in Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 4000. Communication Theory</td>
<td>4</td>
</tr>
<tr>
<td>Upper division courses in speech as approved by major adviser</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

**CONCENTRATION IN COMMUNICATION DISORDERS**

Complete the prerequisites to the major and the requirements for the concentration.

The concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 3000. Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3010. Language and Speech Development</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3100. Dyadic &amp; Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>OR SPCH 4100. Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3900. Introduction to Research Methods in Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 4000. Communication Theory</td>
<td>4</td>
</tr>
<tr>
<td>Additional courses selected on advisement</td>
<td>14</td>
</tr>
<tr>
<td>SPCH 3610. Introduction to Communication Disorders</td>
<td>3 units</td>
</tr>
<tr>
<td>SPCH 3640. Anatomy of Speech and Hearing Mechanisms</td>
<td>3 units</td>
</tr>
<tr>
<td>SPCH 3701. Introduction to Clinical Methods</td>
<td>1 unit</td>
</tr>
<tr>
<td>SPCH 3810. Theory and Practice of Hearing Measurement I</td>
<td>4 units</td>
</tr>
<tr>
<td>SPCH 4611. Proseminar in Communication Disorders I: Language</td>
<td>3 units</td>
</tr>
<tr>
<td>SPCH 4621. Proseminar in Communication Disorders II: Articulation</td>
<td>3 units</td>
</tr>
<tr>
<td>SPCH 4630. Proseminar in Communication Disorders III: Aphasia and Neuromotor Disorders</td>
<td>3 units</td>
</tr>
</tbody>
</table>
### Communication Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 4640</td>
<td>Proseminar in Communication Disorders IV: Voice and Dysfluency</td>
<td>3 units</td>
</tr>
<tr>
<td>SPCH 4700</td>
<td>Clinical Practice: Speech and Language Disorders</td>
<td>1-2 units</td>
</tr>
<tr>
<td>SPCH 4710</td>
<td>Clinical Practice: Hearing Disorders</td>
<td>1-2 units</td>
</tr>
<tr>
<td>SPCH 4721</td>
<td>Practicum in Developmental Assessment</td>
<td>3 units</td>
</tr>
<tr>
<td>SPCH 4811</td>
<td>Proseminar in Aural Rehabilitation</td>
<td>3 units</td>
</tr>
</tbody>
</table>

**Total: 30 units**

### Concentration in Organizational Communication

Complete the prerequisites to the major and the requirements for the concentration.

**Prerequisites to the concentration:**

- **ECOn 2500.** Principles of Economics I, 4 units
- **ENGL 2050.** Technical & Report Writing, 3 units
- **SPCH 2011.** Approaches to Human Communication, 4 units

**Additional recommended courses include:**

- **BUS 2060.** Business Law, 3 units
- **ECOn 2510.** Principles of Economics II, 4 units
- **SPCH 2102.** Group Discussion Processes, 3 units

**The concentration:**

- **BUS 3010.** Organization & Environment, 4 units
  - OR **SOCI 4800.** Formal Organizations, 3 units (3-4 units)
- **SPCH 3100.** Dyadic & Interpersonal Communication
- **SPCH 3122.** Management Communication
- **SPCH 3900.** Introduction to Research Methods in Communication
- **SPCH 4000.** Communication Theory
- **SPCH 4110.** Organizational Communication

**Additional minimum of 13-14 units selected on advisement from the following:**

- **BUS 3010.** Organization & Environment, 4 units
- **BUS 3310.** The Administrative Process, 3 units
- **PSCI 3300.** Introduction to Public Administration, 3 units
- **PSYC 4820.** Group Dynamics Seminar, 3 units
- **SPCH 3050.** General Semantics, 3 units
- **SPCH 3911.** Communication Projects, 2 units
- **SPCH 4100.** Group Communication, 3 units

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### Communication Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 4122</td>
<td>Social Influence: Persuasion and Attitude Change</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 4200</td>
<td>Mass Communication Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 4940</td>
<td>Organizational Communication Internship</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
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<td>33</td>
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</tbody>
</table>

### DEGREE MINOR IN SPEECH

Eighteen units, to include at least 12 units in upper division.

#### Lower Division

- SPCH 2002. Public Speaking, 3 units
  OR SPCH 2012. Approaches to Human Communication, 4 units

One of the following as approved by minor adviser:

- SPCH 2102. Group Discussion Processes, 3 units
- SPCH 2400. Oral Interpretation, 3 units

#### Upper Division

Courses as approved by minor adviser, 12 units

### LIBERAL STUDIES CONCENTRATION IN SPEECH

Twenty units, to include at least 15 upper division units

#### Core Requirements in Liberal Studies:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>*SPCH 2002</td>
<td>Public Speaking, 3 units</td>
<td>3</td>
</tr>
<tr>
<td>OR *SPCH 2011</td>
<td>Approaches to Human Communication, 4 units</td>
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</tr>
<tr>
<td>SPCH 3010</td>
<td>Language &amp; Speech Development</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Courses in the Concentration:

Additional courses selected from the following on advisement . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13-14

- SPCH 2102. Group Discussion Process, 3 units
- *SPCH 2400. Oral Interpretation, 3 units
- *SPCH 2911 OR *3911. Communication Projects, 2 units
- *SPCH 3000. Phonetics, 3 units
- *SPCH 3020. Structural & Psycholinguistics, 4 units
- *SPCH 3050. General Semantics, 3 units

*Cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.*

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Communication Studies

SPCH 3100. Dyadic & Interpersonal Communication, 3 units
SPCH 3122. Management Communication, 3 units
*SPCH 3400. Oral Interpretation of Children's Literature, 5 units
*SPCH 3410. Oral Interpretation of Literature, 3 units
SPCH 4000. Communication Theory, 4 units
SPCH 4100. Group Communication, 3 units
SPCH 4122. Social Influence: Persuasion & Change, 3 units
SPCH 4140. Rhetorical Theory, 3 units

Total ......................... 20

TEACHING CREDENTIALS

An approved single subject waiver is available to speech majors under the credential category of English for those who wish to declare speech as their subject matter teaching area. Please refer to the Education section of the catalog for a description of other requirements to be completed in obtaining a single subject credential.

SERVICE CREDENTIAL: CLINICAL AND REHABILITATIVE SERVICES IN THE AREA OF LANGUAGE, SPEECH, AND HEARING SERVICES

The department offers the Clinical and Rehabilitative Services Credential in conjunction with the Bachelor and Masters programs in Communication Disorders. The credential is designed to prepare individuals for careers as language, speech, and hearing specialists. Application to enter the program should be made to the Secretary, Speech, Language, and Hearing Center.

MASTER OF ARTS IN SPEECH
Concentration in Communication Disorders

The Department of Speech Communication offers graduate study for the student who wishes to enhance his competence by postbaccalaureate study with a program leading to the Master of Arts degree. The concentration in Communication Disorders is designed to satisfy academic and clinic practicum requirements for the Certificate of Clinical Competence in Speech Pathology issued by the American

*Cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.
Speech and Hearing Association and for licensure in Speech Pathology by the State of California Board of Medical Quality Assurance. Requirements for the Clinical and Rehabilitation Services credential may also be completed in conjunction with the master's degree. Students should consult a department graduate adviser for specific credential requirements. Enrollment in 5000-level courses in Communication Disorders is restricted to students who have been admitted to the graduate program of the department or have received departmental approval for continuing education programs. Credits earned under the latter condition may not be applied to an advanced degree in the Communication Disorders program unless a special petition is approved (up to 9 units maximum may be approved).

ADMISSION TO THE GRADUATE PROGRAM

Students desiring to be admitted must meet the following requirements:

1. Satisfy the general requirements for admission to the College with classified graduate standing as described in the Graduate Programs section of this catalog.
2. Possess an acceptable baccalaureate degree earned at an institution accredited by a regional accrediting association. Students whose undergraduate preparation was not in Communication Disorders, or was substantially different from that offered at CSCS, will be required to complete the equivalent baccalaureate degree requirements. Any deficiencies will be determined by the department graduate committee after consultation with the student and study of transcripts.
3. Submit a completed departmental application form to the Director, Communication Disorders. The deadline for filing this application is the 2nd Monday of March for the following Fall semester and the 2nd Monday of October for the following Spring semester. In addition, three letters of recommendation from academic personnel or individuals who have knowledge of the applicant in settings requiring close interpersonal relationships are required. These recommendations should contain information which includes evaluation of the student's potential as a graduate student.
4. Submit one copy of transcripts of all undergraduate and graduate work to the Director, Communication Disorders. These transcripts are in addition to those required by the Office of Admissions and Records. Transcripts will be evaluated to determine that the following minimal requirements have been met:
   a. A grade point average (GPA) of 3.0 or better (on a four point scale) in the last 60 units attempted.
   b. A GPA of 3.0 or better in the major field of study.
   c. Confirmation of a 3.0 GPA at the time of completion of the degree.
5. Submit Graduate Record Examination scores to the Director, Communication Disorders.

ADVANCEMENT TO CANDIDACY

The following procedure should be followed for advancement to candidacy:

1. Be accepted as an approved major in the department graduate program. See "Admission to the Graduate Program."
2. Remove all undergraduate deficiencies.
3. Earn a 3.0 or better GPA: (a) in graduate work in Communication Disorders; (b) in all graduate work completed at this college, and (c) in all graduate work transferred to meet degree requirements.
4. File a departmental application for advancement to candidacy. The student is advanced to candidacy for the Master of Arts degree upon qualifying for entrance into the Thesis Research course or the internship program. Students must have approval of the department prior to enrollment in SPCH 5990, Thesis; SPCH 5940, Clinical Internship; and SPCH 5730, Clinical Practice in Communication Disorders in Public Schools.

REQUIREMENTS FOR THE DEGREE

1. Demonstrate acceptable progress toward completion of the degree. Such progress will be determined in several phases: (a) at the completion of a minimum of 12-15 units; (b) following one full semester of on-campus clinical practice; (c) upon filing for permission to enroll in SPCH 5990, if following Plan I; or SPCH 5940, if following Plan II.
2. In addition to meeting the requirements for classified graduate standing, advancement to candidacy and the basic requirements for the Master's degree as described in the Graduate Program section of this catalog, the student must complete Plan I (Thesis) or Plan II (Clinical Internship). Both options require a minimum of 30 semester units in graduate courses selected on advisement and to include SPCH 5661, Seminar in Children's Language Disorders (3), and SPCH 5900, Research Methods in Speech (4). Students must also accrue a minimum of 300 hours of supervised clinical practice of which 150 hours must be at the graduate level.

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PLAN I (Thesis)

SPCH 5661. Seminar in Children's Language Disorders ........ 3
SPCH 5900. Research Methods in Speech ...................... 4
SPCH 5990. Thesis ........................................... 3-6

Electives selected from the following courses: ............ 17
SPCH 5610, 5630, 5650, 5662, 5670, 5710, 5720, 5740, 5800, 5950, 5980, or a maximum of
6 units selected with departmental approval
from 4000, 5000 or 6000 level courses in
other disciplines at CSCS.

Minimum total ............................................. 30

Oral examination of thesis to be conducted by thesis
committee.

PLAN II (Clinical Internship)

SPCH 5661. Seminar in Children's Language Disorders ........ 3
SPCH 5900. Research Methods in Speech ...................... 4
SPCH 5940. Clinical Internship ............................... 6

Electives selected from the following courses: ............ 17
SPCH 5610, 5630, 5650, 5662, 5670, 5710, 5720, 5740, 5800; 5950, 5980, or a maximum of
6 units selected with departmental
approval from 4000, 5000 or 6000 level
courses in other disciplines at CSCS.

Minimum total ............................................. 30

Written comprehensive examination administered by the depart­
ment. This examination may be repeated only once.

SPEECH COMMUNICATION SUB-AREAS

BASIC SYSTEMS AND PROCESSES: LANGUAGE AND COMMUNICATION

SPCH 2011. Approaches to Human Communication, 4 units
SPCH 3000. Phonetics, 3 units
SPCH 3010. Language & Speech Development, 3 units
SPCH 3020. Structural & Psycholinguistics, 4 units
SPCH 3050. General Semantics, 3 units
SPCH 3900. Introduction to Research Methods in
Communication, 3 units
SPCH 4000. Communication Theory, 4 units
SPCH 4950. Selected Topics in Speech, 1-5 units
SPCH 4980. Individual Study, 1-4 units
Communication Studies

INTERPERSONAL COMMUNICATION

SPCH 2002. Public Speaking, 3 units
SPCH 2102. Group Discussion Processes, 3 units
SPCH 2400. Oral Interpretation, 3 units
SPCH 2911. Communication Projects, 3 units
SPCH 2950. Selected Topics in Speech, 1-5 units
SPCH 3122. Management Communication, 3 units
SPCH 3400. Oral Interpretation of Children's Literature, 3 units
SPCH 3410. Oral Interpretation of Literature, 3 units
SPCH 3930. Intercolligate Forensics, 1 unit
SPCH 4100. Group Communication, 3 units
SPCH 4110. Organizational Communication, 3 units
SPCH 4122. Social Influence: Persuasion and Attitude Change, 3 units
SPCH 4140. Rhetorical Theory, 3 units

COMMUNICATION DISORDERS

SPCH 3610. Introduction to Communication Disorders, 3 units
SPCH 3640. Anatomy of Speech & Hearing Mechanisms, 3 units
SPCH 3701. Introduction to Clinical Methods, 1 unit
SPCH 3810. Theory & Practice of Hearing Measurement I, 4 units
SPCH 4611. Proseminar in Communication Disorders I: Language, 3 units
SPCH 4621. Proseminar in Communication Disorders II: Articulation, 3 units
SPCH 4630. Proseminar in Communication Disorders III: Aphasia & Neuromotor Disorders, 3 units
SPCH 4640. Proseminar in Communication Disorders IV: Voice and Dysfluency, 3 units
SPCH 4700. Clinical Practice: Speech & Language Disorders, 1-2 units
SPCH 4710. Clinical Practice: Hearing Disorders, 1-2 units
SPCH 4721. Practicum in Developmental Assessment, 3 units
SPCH 4811. Proseminar in Aural Rehabilitation, 3 units

GRADUATE

SPCH 5610. Seminar in Dysfluency, 3 units
SPCH 5630. Seminar in Articulation Disorders, 3 units
SPCH 5650. Seminar in Voice Disorders, 3 units
SPCH 5661. Seminar in Childhood Language Disorders, 3 units
SPCH 5662. Seminar in Adult Aphasia, 3 units
SPCH 5670. Advanced Diagnostic Methods in Communicative Disorders, 3 units
SPCH 5700. Advanced Clinical Practice Speech and Language Disorders, 1-2 units
SPCH 5710. Advanced Clinical Practice: Hearing Disorders, 1-2 units
SPCH 5720. Internship in Clinical Supervision, 4 units
Communication Studies

SPCH 5730. Clinical Practice in Communication Disorders in Public Schools, 6 units
SPCH 5740. Clinical Evaluation: Speech and Language Disorders, 1 unit
SPCH 5800. Seminar: Audiolological Research, 4 units
SPCH 5900. Research Methods in Speech, 4 units
SPCH 5940. Clinical Internship in Communication Disorders, 3-6 units
SPCH 5950. Selected Topics in Speech, 1-5 units
SPCH 5980. Individual Study, 1-4 units
SPCH 5990. Thesis, 3-6 units

COURSE DESCRIPTIONS

Lower Division

SPCH 2002. Public Speaking (3)

Oral communication theory and practice in terms of the process, speaker, message, and audience. Emphasis on ethics, reasoning, evidence, listening, and criticism. Classroom activities include preparation, presentation, and criticism of speeches. (Formerly 2000)

SPCH 2011. Approaches to Human Communication (4)

Introduction to the field of human communication as developed in contemporary theory and research. Recurrent variables in verbal and non-verbal interaction are traced through the intra-personal, interpersonal, and multipersonal systems. Required for speech communication majors. (Formerly 2010)

SPCH 2102. Group Discussion Processes (3)

The development of basic skills in interpersonal and small group communication. Areas of concern will include: discussion methodology and problem solving, information gathering, interviewing, conference management, leadership roles, and decision making. (Formerly 2101)

SPCH 2400. Oral Interpretation (3)

Fundamentals of theory; techniques and practices in communicating from the printed page.

SPCH 2911. Communication Projects (2)

Project course for involvement of the student in a variety of speech and/or instructionally related activities. Options include such projects as intercollegiate speech activities, participation in community projects, or in-depth studies of instructional programs in such settings as public schools, child development...
Communication Studies

centers, or other public agencies. May be repeated for a total of 8 units. (Formerly 2910) Prerequisite: Consent of instructor.

SPCH 2950. Selected Topics in Speech (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of speech. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

SPCH 2970. Selected Topics during Winter Term (4)

Upper Division

SPCH 3000. Phonetics (3)

Analysis of general American speech with emphasis on synthesis in connected discourse. Practice and drill with international phonetic alphabet. Application of science of phonetics to fields of general linguistics, dialects, pronunciation in foreign languages, speech correction, and language arts.

SPCH 3010. Language and Speech Development (3)

Acquisition, learning, and development of normal language, grammar, and speech in children considered from neurological, psychological, and semantic standpoints; facts underlying normal speech and language development.

SPCH 3020. Structural and Psycholinguistics (4)

Analysis of structure of English; methods of linguistic analysis of language samples using structural and transformational models. Survey of psycholinguistic theory including developmental transformations, bilingualism and language change. (Formerly 4010) Prerequisites: SPCH 3000 and 3010.

SPCH 3050. General Semantics (3)

Language and thought; practical analysis of verbal habits in human affairs. Emphasis on the formulations of general semantics, which deal with such communication problems as conflict, confusion, prejudice, accuracy, and precision in use of verbal symbols.

SPCH 3100. Dyadic and Interpersonal Communication (3)

The purpose of this course is to develop awareness of the dimensions of interpersonal communication and to develop communication skills appropriate to the interpersonal context. Among the areas to be covered are communication rules and contracts, validation, interpersonal attraction, alienation, reciprocity spirals
and loops. Focus will be on the requirements for healthy commu­
ication, including positiveness, clarity, appropriateness, trust, and honesty. Prerequisite: SPCH 2011 or junior standing.

SPCH 3122. Management Communication (3)

The study and practice of communication principles, techniques and forms required of managers in the organizational context. Emphasis upon message preparation and exchange in interviews, technical reports, panel-conferences, and public presentations. (Formerly 3121)

SPCH 3400. Oral Interpretation of Children's Literature (3)

Application of principles of oral interpretation to children's literature. Types of children's literature with emphasis on criteria for selection of literature for oral interpretation, storytelling as well as reading. Prerequisite: SPCH 2400 or consent of instructor.

SPCH 3410. Oral Interpretation of Literature (3)

Application of principles of oral interpretation to literary modes and genres with a special emphasis on verse. Prerequisite: SPCH 2400 or consent of instructor.

SPCH 3610. Introduction to Communication Disorders (3)

Specific methods used by speech and hearing clinicians in dealing with problems of oral communication. Systems of therapy, their theoretical rationale, and evaluatory results of these therapies. Organization and administering of speech and hearing programs, including clinical, private practice, hospital, and school programs. Specific applications of methods including direct contact with cases in clinical and school setting. Guided observations. Student is required to register for 1 unit of SPCH 3701. Prerequisite: Concurrent enrollment in SPCH 3000 or consent of instructor.

SPCH 3640. Anatomy of Speech and Hearing Mechanisms (3)

Anatomical and physiological characteristics of the normal speech and hearing mechanisms and their relationship to speech production.

SPCH 3701. Introduction to Clinical Methods (1)

Philosophy and practical application of basic methodology in speech diagnosis and therapy. One hour per week of observation in on-campus clinic also required. Not applicable for clinical practice credit. May be repeated for a total of two semester units. (Formerly 3700)
Communication Studies

SPCH 3810. Theory and Practice of Hearing Measurement I (4)

Psychoacoustic theories and practice measurement of hearing emphasizing puretone and audiometric techniques; evaluation of audiometric results; development and administration of hearing conservation programs. Prerequisite: SPCH 3640 or equivalent. Students are required to register concurrently in SPCH 4710 for 1 unit.

SPCH 3900. Introduction to Research Methods in Communication (3)

Designed to acquaint students with forms of research in speech communication and communicative disorders. Samples from the research literature will be studied from the points of view of the research problems posed, the designs employed, and the techniques required. Prerequisite: SPCH 2002 or 2011 or equivalent.

SPCH 3911. Communication Projects (2)

Project course for involvement of the student in a variety of speech and/or instructionally related activities. Options include such projects as intercollegiate speech activities, participation in community projects, or in-depth studies of instructional programs in such settings as public schools, child development centers, or other public agencies. May be repeated for a total of 8 units. (Formerly 3910) Prerequisite: Consent of instructor.

SPCH 3930. Intercollegiate Forensics (1)

Participation in intercollegiate speech competition. Competition offered in debate, reader's theatre, oral interpretation, and individual speaking events. A total of 10 units may be earned in any combination of SPCH 2911, 3911, and 3930. Prerequisite: SPCH 2911, 3911, or consent of instructor. Concurrent enrollment in SPCH 2911 or 3911 recommended but not required.

SPCH 4000. Communication Theory (4)

Communication models; natural and formal language systems; contributions of theories of information, semantics, psycholinguistics, cybernetics, and general systems to the study of communication. Prerequisite: Senior standing or consent of instructor.

SPCH 4100. Group Communication (3)

Studies in small group theory and research. Participation in informal task groups devoted to such concepts as cooperation and competition, power, roles, status, and leadership as these relate to the variables of communication and productivity. Prerequisite: Senior standing or consent of instructor.
Communication Studies

SPCH 4110. Organizational Communication (3)

Theory, problems and practices of communication in organizations: business, industry, and public agencies. Examination of the factors involved in message transmission among various levels of management and operations, including the functioning of organizations through communication networks, and communicative contacts with other organizations and the public. Prerequisites: Senior standing and consent of instructor.

SPCH 4122. Social Influence: Persuasion & Attitude Change (3)

Principles of message construction derived from studies of motivation. Context, receiver, and media factors will be related to the development of message strategies, such as sidedness, the aspects of order, types of appeals, evocative language and inoculation. (Formerly 4121) Prerequisite: SPCH 2011.

SPCH 4140. Rhetorical Theory (3)

Rhetorical theory from classical to modern times. Influence of Aristotelian principles on development of rhetorical thought. Significant movements in development of rhetoric in France, Great Britain, and United States. Prerequisite: Senior standing or consent of instructor.

SPCH 4200. Mass Communication Perspectives (3)

This course will trace the development of mass communication systems, with special emphasis on the role of broadcast media in contemporary societies. The nature of mass media will be considered from several alternative perspectives; the theories examined will provide an understanding useful in analysis and criticism. Particular attention will be given to the social context within which mass communication occurs and the interactions between technological systems, societal structure, and human communication processes. Prerequisites: SPCH 2011 & 3100, or junior standing and consent of instructor.

SPCH 4611. Proseminar in Communication Disorders I: Language (3)

Language disorders in children. Procedures used in the diagnosis and training of language disordered children. Causes and management of language disorders, including cerebral dysfunction, mental retardation, psychological disorders, and deprivation. (Formerly 4610) Prerequisites: SPCH 3010 and 3020.

SPCH 4621. Proseminar in Communication Disorders II: Articulation (3)

Disorders of articulation, their nature, diagnosis, and treatment. (Formerly 4620) Prerequisites: SPCH 3000 and 3010.
Communication Studies

SPCH 4630. Proseminar in Communication Disorders III: Aphasia and Neuromotor Disorders (3)

Disorders of adult aphasia, cerebral palsy and other neuromotor disabilities, their nature, diagnosis, and treatment. Prerequisites: SPCH 3010 and 3020.

SPCH 4640. Proseminar in Communication Disorders IV: Voice and Dysfluency (3)

Disorders of voice and dysfluency, their etiology, nature, diagnosis, and treatment. Prerequisites: SPCH 3010 and 3640.

SPCH 4700. Clinical Practice: Speech & Language Disorders (1-2)

Supervised work with representative cases in articulation, stuttering, aphasia, voice disorders, delayed speech and language, cleft palate, cerebral palsy. May be repeated for a total of 6 units. Minimum of 15 clinical contact hours required for each unit of credit earned. One hour of staffing per week is required. Prerequisites: Successful completion of SPCH 3000, 3010, 3610, 3640, 3701, and two of the following: SPCH 4611, 4621, 4630, or 4640; consent of instructor.

SPCH 4710. Clinical Practice: Hearing Disorders (1-2)

Supervised work with representative cases in disorders of hearing. Administering of tests for assessment of specific pathologies of the hearing mechanism. Procedures for development of speech and language for children and adults with hearing disorders. Internship in both on-campus and off-campus settings: 15 clinical contact hours required for each unit of credit earned. One hour of staffing per week is required. May be repeated for a total of 6 units. Prerequisite: SPCH 3810.

SPCH 4721. Practicum in Developmental Assessment (3)

Procedures and techniques for assessing perceptual motor, social, speech, and language development in children. (Formerly 4720) Prerequisite: SPCH 3010 or consent of instructor.

SPCH 4730. Field Experience in Management of Child Development Programs (2)

Supervised work with preschool children in developmental centers; planning and presenting developmental programs and preschool learning experiences. Three hours practicum per week required for each unit. May be repeated for a total of 4 units. Prerequisites: SPCH 4721 and consent of instructor.
SPCH 4811. Proseminar in Aural Rehabilitation (3)

The study and analysis of various methods of developing communication skills in children and adults with impaired hearing. The principles and methods involved in the use of residual hearing in the hearing impaired. Students are required to register concurrently in SPCH 4710 for 1 unit. (Formerly 4810)

SPCH 4940. Organizational Communication Internship (2-4)

This course is designed for students in Organizational Communication who want to apply, integrate, and explore their educational experience as an intern in a public or private organization. (Formerly 4960) Prerequisite: Completion of core program in the Organizational Communication concentration.

SPCH 4950. Selected Topics in Speech (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of human communication. Topics may vary each term, thus different topics may be taken for credit. Prerequisites: Upper division standing and consent of instructor.

SPCH 4970. Selected Topics offered during Winter Term (4)

SPCH 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Graduate

SPCH 5610. Seminar in Dysfluency (3)

Stuttering, cluttering, other disorders of fluency. Theory diagnosis, and treatment. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5700 for 1 unit is required.

SPCH 5630. Seminar in Articulation Disorders (3)

Articulation disorders of functional, structural, and neurological etiology; dysarthria and apraxia; cleft palate articulation, theory, diagnosis, and treatment. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5700 for 1 unit is required.

SPCH 5650. Seminar in Voice Disorders (3)

Communication Studies

Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 4700 for 1 unit is required.

SPCH 5661. Seminar in Childhood Language Disorders (3)

Study of the nature, diagnosis, and treatment of language and language learning disorders of children, with emphasis on severe oral language handicap. (Formerly 5660) Prerequisites: SPCH 4611 and consent of instructor.

SPCH 5662. Seminar in Adult Aphasia (3)

Study of the nature, evaluation, and treatment of adult aphasia. (Formerly 5660) Prerequisites: SPCH 4611 and consent of instructor.

SPCH 5670. Advanced Diagnostic Methods in Communicative Disorders (3)

Advanced diagnostic methods of disorders of communication in children and adults. Administration and interpretation of diagnostic tests. Instrumentation, examination techniques, int methods, report writing and referral procedures. (Formerly 4600) Prerequisites: Graduate standing, SPCH 4611, 4621 or equivalent and consent of instructor.

SPCH 5700. Advanced Clinical Practice: Speech and Language Disorders (1-2)

Supervised work with representative advanced cases in articulation, stuttering, aphasia, voice disorders, delayed speech and language, cleft palate, cerebral palsy. May be repeated for a total of 6 units. Minimum of 15 clinical contact hours required for each unit of credit earned. One hour of staffing per week is required. Prerequisites: Graduate standing and successful completion of SPCH 3000, 3010, 3610, 3640, 3701 and two of the following: SPCH 4611, 4621, 4630, or 4640; consent of instructor.

SPCH 5710. Advanced Clinical Practice: Hearing Disorders (1-2)

Supervised work with representative cases of hearing disorders. Includes auditory training, lipreading, language development for the hard of hearing. Fifteen contact hours required for each unit earned. May be repeated for a total of 6 units. One hour staffing per week is required. Prerequisite: Consent of instructor.

SPCH 5720. Internship in Clinical Supervision (4)

Practicum in supervision of undergraduate students enrolled in clinical practicum. Each student will supervise four beginning undergraduate students. A weekly seminar will be held to discuss problems in clinical supervision.
SPCH 5730. Clinical Practice in Communication Disorders in Public Schools (6)

Supervised screening, identification of communication disorders in school setting, record keeping, supervised therapy of communication disorders in public school setting. Twenty contact hours required for each unit of credit earned. Prerequisites: Acceptance in credential program in speech, completion of or concurrent enrollment in SPCH 4700, 4710, 5700, 5710.

SPCH 5740. Clinical Evaluation: Speech and Language Disorders (1)

Supervised work in the evaluation of advanced cases of speech and language disorders, and the reporting of evaluations. Ten clinical contact hours is required. Two units may be earned concurrently. Prerequisites: SPCH 3900, 4611 or 4621, graduate standing, and consent of instructor.

SPCH 5800. Seminar: Audiological Research (4)

Review and discussion of current and past audiological research findings. Use and practice in operating psychoacoustic and physiological-acoustic equipment through a series of research projects. Prerequisite: SPCH 3810 or consent of instructor.

SPCH 5820. Theory & Practice of Hearing Measurement II (4)

Development of an awareness of specific clinical techniques beyond basic procedures. Course projects and clinical practicum are designed to develop the student's appreciation of available tests. Usefulness of audiological information to each student's professional goals will be emphasized. (Formerly 3820) Prerequisite: Concurrent enrollment in SPCH 5710 for 1 unit.

SPCH 5900. Research Methods in Speech (4)

The purpose and methods of research in the field of speech; trends and developments with emphasis upon the development of methods of studying existing problems and discovering new ones in the field of speech. Prerequisite: Consent of instructor.

SPCH 5940. Clinical Internship in Communication Disorders (3-6)

Advanced clinical practice in off-campus programs. Practicum in a variety of communication disorders under supervision of certified clinical supervisor in a professional setting. (Formerly 5960) Prerequisite: Classified graduate standing and consent of Graduate Studies Committee. Student must be in final semester of graduate study.
Communication Studies

SPCH 5950. Selected Topics in Speech (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of oral communication. Topics may vary each term, thus different topics may be taken for credit. Prerequisite: Graduate standing.

SPCH 5970. Selected Topics offered during Winter Term (4)

SPCH 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

SPCH 5990. Thesis Research (3-6)

Thesis research. Prerequisites: Satisfactory completion of SPCH 5900 or its equivalent, and special permission.
Drama

Jere D. Wade, Ph.D., Associate Professor, Chair
Douglas McDermott, Ph.D., Professor
Noble T. Dinse, M.A.T., Associate Professor
Richard Levering, M.A., Associate Professor

The Department of Drama offers the degree, Bachelor of Arts, Drama. The Department trains undergraduates as general practitioners in the art of theatre. The curriculum balances theoretical practical work and features a close relationship between courses and production. Students and faculty work together on all aspects of production in a 300-seat mainstage theatre and a 100-seat studio. Upon completion of the drama major, a student should be able to collaborate with others in the operation of a theatre or to qualify for further professional training as an artist or as a scholar. Courses in the drama curriculum also provide aesthetic and cultural enrichment for the student in liberal arts.

REQUIREMENTS FOR THE BACHELOR OF ARTS, DRAMA

Drama majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 36 upper division units as approved by the major adviser. No more than 4 units of CR graded course work may apply toward the major. Completion of a minor is not required.

DEGREE MAJOR IN DRAMA

Prerequisites to the Major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 2100</td>
<td>Theatre Management I, 1 unit</td>
</tr>
<tr>
<td>DRAM 2110</td>
<td>Theatre Management II, 1 units</td>
</tr>
<tr>
<td>DRAM 2250</td>
<td>Beginning Costume and Makeup, 2 units</td>
</tr>
<tr>
<td>DRAM 2300</td>
<td>Theatre Workshop I, 2 units</td>
</tr>
<tr>
<td>DRAM 2500</td>
<td>Acting IA: Improvisation &amp; Technique, 3 units</td>
</tr>
<tr>
<td>DRAM 2501</td>
<td>Acting IB: Technique, Theory &amp; Practice, 3 units</td>
</tr>
</tbody>
</table>

The Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 3200</td>
<td>Stagecraft</td>
</tr>
<tr>
<td>DRAM 3410</td>
<td>Dramatic Theory and Criticism</td>
</tr>
<tr>
<td>DRAM 3510</td>
<td>History of Theatre I</td>
</tr>
<tr>
<td>DRAM 3520</td>
<td>History of Theatre II</td>
</tr>
<tr>
<td>DRAM 4300</td>
<td>Theatre Workshop II</td>
</tr>
<tr>
<td>DRAM 4350</td>
<td>Rehearsal and Performance II</td>
</tr>
<tr>
<td>DRAM 4600</td>
<td>Directing</td>
</tr>
<tr>
<td>DRAM 4610</td>
<td>Senior Project</td>
</tr>
</tbody>
</table>
Two of the following as recommended by the major adviser, at least one of which must be in design or technical theatre: .............................................. 6.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 3210</td>
<td>Makeup</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3220</td>
<td>Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3230</td>
<td>Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3240</td>
<td>Costuming</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3500</td>
<td>Acting IIA: Scene Study</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3501</td>
<td>Acting IIB: Scene Study</td>
<td>3</td>
</tr>
</tbody>
</table>

Total ............................................. 36

Elective Courses

In consultation with the major adviser, one or more of the following elective courses may be selected to supplement areas of major interest:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 2950</td>
<td>Selected Topics in Drama</td>
<td>1-5</td>
</tr>
<tr>
<td>DRAM 3020</td>
<td>Children's Theatre</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3250</td>
<td>Costume Design</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3530</td>
<td>Contemporary Theatre</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 4550</td>
<td>American Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>

TEACHING CREDENTIALS

Students majoring in Drama who are interested in obtaining an English single subject credential waiver are referred to a description of the waiver program in the English section of the catalog. Please refer to the Education section of the catalog for a description of other requirements to be completed in obtaining a single subject credential.

LIBERAL STUDIES CONCENTRATION IN DRAMA

Twenty-two units as approved by a drama adviser, 15 units of which must be upper division.

<table>
<thead>
<tr>
<th>Division</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
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<tr>
<td>Lower</td>
<td>DRAM 2100</td>
<td>Theatre Management I</td>
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<td></td>
<td>DRAM 2250</td>
<td>Beginning Costume and Makeup</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>DRAM 2500</td>
<td>Acting IA: Improvisation &amp; Technique</td>
<td>3</td>
</tr>
<tr>
<td>Upper</td>
<td>DRAM 3200</td>
<td>Stagecraft</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>DRAM 4300</td>
<td>Theatre Workshop II</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>DRAM 4600</td>
<td>Directing</td>
<td>4</td>
</tr>
</tbody>
</table>
Drama

Two courses selected from the following: 6

- DRAM 3210. Makeup, 3 units
- DRAM 3220. Stage Lighting, 3 units
- DRAM 3240. Costuming, 3 units
- DRAM 3500. Acting IIA: Scene Study, 3 units

Total: 22 units

COURSE DESCRIPTIONS

Lower Division

DRAM 1000. Theatre Appreciation (3)
Understanding and appreciation of live theatrical performance and production. May be repeated for credit once.

DRAM 1010. Introduction to Theatre (3)
Introductory survey of theatrical art. The theatre as an art form; elements of theatre; classroom practice in the fundamentals of theatrical production.

DRAM 1112. Playgoing (2)
Understanding and appreciation of live theatrical performance. Attendance without charge at two campus plays. May be repeated for credit once.

DRAM 2010. Theatre and Society (3)
Survey of major periods in which theatre and drama have flourished in Western society, including classic Greek, Elizabethan, and modern European. Emphasis on the relationship between theatre and society: how theatre and drama reflect social concerns; how social conditions influence plays, playhouses, and performance.

DRAM 2100. Theatre Management I (1)
An introduction to the methods of operating a theatre as a business; publicity, box office, and house management.

DRAM 2110. Theatre Management II (1)
An introduction to the methods of managing the backstage operation of a theatrical production.
DRAM 2250. Beginning Costume and Makeup (2)

An introduction to the basic techniques of stage makeup and the design and construction of stage costumes. (Formerly 2210 and 2240)

DRAM 2300. Theatre Workshop I (1-2)

Practice in all phases of theatrical production, except acting and stage management. May be repeated for credit each semester.

DRAM 2350. Rehearsal and Performance I (3)

Practice in acting and in stage management for public performance. May be repeated for credit each semester. Prerequisite: Consent of instructor.

DRAM 2500. Acting I A: Improvisation and Technique (3)

Theatre games, improvisation, and exercises for the development of individual skills in acting. (Formerly 2000)

DRAM 2501. Acting IB: Technique, Theory and Practice (3)

Introduction to character analysis, characterization, the playing of dramatic action. Will include work on vocal and physical skills, and will concentrate on scenes from modern realistic drama. Prerequisite: DRAM 2500 or consent of instructor.

DRAM 2600. Reader's Theatre (3)

Selecting, editing, interpreting, and performing all forms of literature in the theatrical setting.

DRAM 2950. Selected Topics in Drama (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in drama. Topics may vary each term and are frequently selected to complement current dramatic productions. Different topics may be taken for credit.

DRAM 2970. Selected Topics offered during Winter Term (4)

Upper Division

DRAM 3020. Children's Theatre (3)

A study of special problems and techniques in the production of formal drama for children; and a consideration of techniques, methods, and materials for use in improvised theatre.
Drama

DRAM 3200. Stagecraft (4)

Principles and practice in the techniques of building, painting, mounting, and rigging of stage scenery and properties for production. Prerequisite: Consent of instructor.

DRAM 3210. Makeup (3)

Principles and practice in the art of theatrical makeup. Prerequisite: DRAM 2250 or consent of instructor.

DRAM 3220. Stage Lighting (3)

Theory and practice in the art of designing effective stage lighting. Prerequisites: DRAM 3200 and consent of instructor.

DRAM 3230. Scene Design (3)

Principles and practice in the techniques of creating effective scenery for the stage. Prerequisites: DRAM 3200 and consent of instructor.

DRAM 3240. Costuming (5)

Principles and practice in the art of theatrical costuming. Prerequisite: DRAM 2250 or consent of instructor.

DRAM 3250. Costume Design (3)

Fundamentals of costume design and history of costume periods. DRAM 3240 recommended.

DRAM 3410. Dramatic Theory and Criticism (3)

Investigation of dramatic and theatrical works as art forms. Introduction to methods of critical analysis.

DRAM 3500. Acting IIA: Scene Study (3)

Intensified work on the analysis of character and dramatic action, and on the playing of dramatic action. Scene work from modern realistic drama. May be repeated once for credit, with consent of instructor. Prerequisite: DRAM 2501 or consent of instructor.

DRAM 3501. Acting IIB: Scene Study (3)

Scene work in modern realistic and nonrealistic drama and comedy. May be repeated once for credit, with consent of instructor. Prerequisite: DRAM 3500 or consent of instructor.
DRAM 3510. History of Theatre I (3)

Historical analysis of theatre from its primitive origins through the neoclassic period in France.

DRAM 3520. History of Theatre II (3)

Historical analysis of theatre from the time of the Restoration in England to the outbreak of World War II.

DRAM 3530. Contemporary Theatre (3)

Historical analysis of the theatre since World War II. Emphasis on recent developments.

DRAM 4300. Theatre Workshop II (2)

Advanced practice in all phases of theatrical production, except acting and stage management. May be repeated for credit each semester. Prerequisite: Upper division standing.

DRAM 4350. Rehearsal and Performance II (3)

Practice in acting and in stage management for public performance. May be repeated for credit each semester. Prerequisites: Upper division standing and consent of instructor.

DRAM 4550. American Theatre (3)

Historical analysis of theatre and drama in the United States from Colonial times to the outbreak of World War II.

DRAM 4600. Directing (4)

Examination of history, principles, and procedures of the theatrical director. Practical scene work in composition, movement, and tempo. Practical scene work in period styles.

DRAM 4610. Senior Project (4)

Senior drama majors, in consultation with the drama faculty, will produce a series of public performance projects. Prerequisites: Standing as a senior drama major and consent of instructor.

DRAM 4950. Selected Topics in Drama (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in drama. Topics may vary each term and are frequently selected to complement current dramatic productions. Different topics may be taken for credit.
Drama

DRAM 4970. Selected Topics offered during Winter Term (4)

DRAM 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

DRAM 5980. Individual Study (1-4)

For postbaccalaureate students capable of independent work and in need of advanced specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
Economics

Frederick E. Kottke, Ph.D., Professor, Chairman
William Dale Crist, Ph.D., Professor
H. Dieter Remming, Dr. rer. pol., Professor
Albert Yin-Po Lee, Ph.D., Associate Professor
Edward C. Erickson, Ph.D., Assistant Professor

The Department of Economics offers the degree Bachelor of Arts, Economics. It also offers the Master's in Public Administration jointly with the Department of Political Science. The objectives of the major in economics are: (1) to provide a concentration in economics as the central core of a liberal oriented education; (2) to provide the major with courses in advanced theories and principles of production, distribution, exchange, and consumption, thus enabling the major to enter graduate study at leading universities; (3) to provide an expanded preprofessional base for the prospective business administration major enabling him to satisfy vocational objectives in government, business, and/or industry; and (4) to provide undergraduate and graduate service courses for the Masters of Public Administration (MPA) program.

REQUIREMENTS FOR BACHELOR OF ARTS, ECONOMICS

Economics majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units; of these no more than 8 units of CR graded work may apply toward the major.

Completion of a minor is not required.

DEGREE MAJOR IN ECONOMICS

Prerequisites to the Major:

ECON 2500, 2510. Principles of Economics I, II, 8 units

Recommended courses in supporting fields:

Course work in mathematics as recommended by major adviser.

The Major

A minimum of 24 upper division units in economics including a course in microtheory and macrotheory (ECON 4200 and 4000), Quantitative Analysis (ECON 3200), Senior Seminar (ECON 4960) and at least one course each from four of the areas of specialization:
Economics

1. Money and Banking
2. Economic Theory and Doctrines
3. Labor Economics
4. International Economics
5. Public Finance and Fiscal Policy
6. Economic History
7. Quantitative Economics

**DEGREE MINOR IN ECONOMICS**

Principles of Economics and 12 units of upper division courses as approved by the minor adviser.

**LIBERAL STUDIES CONCENTRATION IN ECONOMICS**

The Liberal Studies Concentration in Economics consists of 20 units, at least 15 of which must be upper division units.

**TEACHING CREDENTIALS**

Majors in Economics interested in a Social Sciences waiver for a single subject credential should review Plan II of the Social Sciences waiver described in the Social Sciences section of the Catalog. Please refer to the Education section of the Catalog for a description of other requirements to be completed for the single subject credential.

**ECONOMICS SUB-AREAS**

**GENERAL COURSES (Lower Division)**

- ECON 2000. Economic History of the United States, 3 units
- ECON 2500. Principles of Economics I, 4 units
- ECON 2510. Principles of Economics II, 4 units
- ECON 2950. Selected Topics in Economics, 1-5 units

**ECONOMIC THEORY AND DOCTRINES**

- ECON 3150. National Income Analysis, 3 units
- ECON 4000. Intermediate Theory (Macroeconomics), 3 units
- ECON 4010. Economic Thought, 3 units
- ECON 4200. Intermediate Theory (Microeconomics), 3 units

**MONEY AND BANKING**

- ECON 3320. Money and Banking, 3 units

**PUBLIC FINANCE AND FISCAL POLICY**

- ECON 4540. Public Finance & Fiscal Policy, 3 units
- ECON 4550. Taxation & the American Economy, 3 units
Economics

LABOR ECONOMICS

ECON 4100. Labor Economics, 3 units
ECON 4110. Collective Bargaining in the Public Sector, 3 units

INTERNATIONAL ECONOMICS

ECON 4050. Comparative Economic Systems, 3 units
ECON 4401. Third World Economics, 3 units
ECON 4410. International Trade, 3 units
ECON 4420. Soviet Economics, 3 units
ECON 4450. International Economic Policies, 3 units
ECON 4450. Economic Planning, 3 units

ECONOMIC HISTORY

ECON 4160. Economic History of Europe, 3 units

QUANTITATIVE ECONOMICS

ECON 3200. Quantitative Analysis I, 4 units
ECON 3210. Quantitative Analysis II, 4 units
ECON 4300. Mathematical Economics I, 3 units

GENERAL COURSES

ECON 4600. Urban Economics, 3 units
ECON 4850. Business Economics, 3 units
ECON 4950. Selected Topics in Economics, 1-5 units
ECON 4960. Senior Seminar, 3 units

COURSE DESCRIPTIONS

Lower Division

ECON 2000. Economic History of the United States (3)

Analysis of economic growth from colonial period to present with emphasis on evolution of business and change in the American system. No prerequisite. (Formerly 4150)

ECON 2500. Principles of Economics I (4)

Macroeconomics; scope, method, economic resources, monetary system, income determination, economic stability-instability, public finance.
Economics

ECON 2510. Principles of Economics II (4)

Microeconomics; price system and market structures, public policy and income distribution. Fundamentals of international economics; international trade, principles and problems of economic growth and development, analysis of economic systems. Special problem areas in American economy; urban economics, environmental economics, agricultural economics.

ECON 2950. Selected Topics in Economics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of economics. Topics may vary each term. Different topics may be taken for credit.

ECON 2970. Selected Topics offered during Winter Term (4)

Upper Division

ECON 3150. National Income Analysis (3)

Analysis of macroeconomic conditions and adjustments in a free enterprise system. National income accounting and employment theory. Prerequisite: Economic Principles or consent of instructor.

ECON 3200. Quantitative Analysis I (4)

Measurement of economic data, statistical inference, quality control, linear regression and correlation, secular trend, seasonal and cyclical variations in time series, and theory of index numbers.

ECON 3210. Quantitative Analysis II (4)

Testing of economic theories, measurement of economic relationships, analysis and forecasting of business situations, application of regression and correlation techniques, autocorrelation, multicollinearity, dummy variables, simultaneous equation models, identification and other topics of elementary econometrics. Prerequisite: ECON 3200 or consent of instructor.

ECON 3320. Money and Banking (3)

Money and the level of economic activity; supply and demand for money; competition among financial institutions; the Federal Reserve System and monetary policy. Prerequisite: Economic Principles or consent of instructor.

ECON 4000. Intermediate Theory (Macroeconomics) (3)

Macroanalysis; income levels, expenditures, prices, and employment; application to depression and inflation. Prerequisite: Economic Principles or consent of instructor.
ECON 4010. Economic Thought (3)

Survey and comparison of the ideas and doctrines of major schools of economic thought from the Middle Ages to the Twentieth Century, with emphasis on Classical and Neoclassical economics, Marxism, Institutionalism, and Keynesian economics.

ECON 4050. Comparative Economic Systems (3)

Comparison of alternative economic systems. Market economies versus planned economies. Institutions and patterns of economic decision making. Resource allocation and income distribution under different forms of economic organization. Comparative economic performance. Prerequisite: Economic Principles or consent of instructor.

ECON 4100. Labor Economics (3)

A study of theories of wage determination, income distribution, manpower imbalance, and economic problems of minority groups. History and theory of the American labor movement and theories of collective bargaining. Prerequisite: Economic Principles or consent of instructor.

ECON 4110. Collective Bargaining in the Public Sector (3)

General survey of employer-employee relations in the public sector. Particular attention paid to developments in public employee collective bargaining legislation and present state of the art of negotiations for conflict resolution in the public sector. Prerequisite: Principles of Economics or consent of instructor.

ECON 4160. Economic History of Europe (3)

Analysis of economic development from medieval period to present. Emphasis on the emergence and evolution of capitalism, the economics of imperialism, the industrial revolution and the European economic community. Prerequisite: Sophomore standing.

ECON 4200. Intermediate Theory (Microeconomics) (3)

Theory of consumer behavior and market demand; production, costs, and the theory of the firm; theories of competition and monopoly; concentration and anti-trust policies; models of oligopoly and monopolistic competition; resource pricing and income distribution; elements of welfare economics. Prerequisite: Economic Principles or consent of instructor.
ECON 4300. Mathematical Economics (3)

Static analysis; comparative-static analysis; optimization problems, input-output analysis; linear programming and game theory. Prerequisite: Economic Principles or consent of instructor.

ECON 4401. Third World Economics (3)

Analysis of economic problems of less developed third world countries; agriculture, industrial development, capital investment, trade, income distribution, population growth and education; economic theories, and policy tools for economic growth and development. (Formerly 4400) Prerequisite: Economic Principles or consent of instructor.

ECON 4410. International Trade (3)

Pure theory of international trade, commercial policies, tariff issues and other trade restrictions, multinational corporations and foreign investment, international and regional trade organizations, U.S. trade with communist countries. Prerequisite: Economic Principles or consent of instructor.

ECON 4420. Soviet Economics (3)


ECON 4430. International Economic Policies (3)

Foreign exchanges and balance of international payments, international financial relations and institutions, fiscal and monetary policies designed to restore balance-of-payments equilibrium, U.S. balance-of-payments and European financial developments, proposals for reform in the international monetary systems. Prerequisite: Economic Principles or consent of instructor.

ECON 4450. Economic Planning (3)

Structure, methodology, and application of economic planning; decentralized vs. centralized organization of economic activity; macroeconomic planning models. Prerequisite: Economic Principles or consent of instructor.

ECON 4540. Public Finance and Fiscal Policy (3)

Principles, problems, and policies of public expenditure,
Economics

credit, debt, budgeting, and fiscal policy. Prerequisite: Economic Principles or consent of instructor.

ECON 4550. Taxation and the American Economy (3)

Principles, problems, policies of local, state, and federal taxation; economics, ethics, law, administration of the tax system; influence of tax policy on the economic system; state and federal income tax returns. Prerequisite: Economic Principles or consent of instructor.

ECON 4600. Urban Economics (3)

An analysis of the economic interdependency of markets in urban areas and possibilities for alternative resource use; land utilization patterns, urban transportation, labor markets, housing and public service markets. Prerequisite: Economic Principles or consent of instructor.

ECON 4850. Business Economics (3)

An analysis and application of economic principles to concepts of decision-making; macrotheory, demand and supply analysis, pricing, and business regulations. Prerequisite: MBA candidacy.

ECON 4950. Selected Topics in Economics (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in economics. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Junior standing or consent of instructor.

ECON 4960. Senior Seminar (3)

Reading and discussion in significant areas of economics; analysis of major contemporary economic problems, national and international. Prerequisite: Senior standing in economics.

ECON 4970. Selected Topics offered during Winter Term (4)

ECON 4980. Individual Study (1-4)

For student capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ECON 5950. Selected Topics in Economics (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.
Economics

ECON 5970. Selected Topics in Economics, Winter Term (1-4)

ECON 5980. Individual Study (1-4)

For student capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ECON 5990. Thesis (1-6)

Thesis research. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of graduate adviser.
Education

Charles R. Farrar, Ed.D., Professor, Chair
James C. Cole, Ed.D., Professor
Joseph W. Corbin, Ed.D., Professor
Edward R. Credell, Ph.D., Professor
Jack A. Graves, Ed.D., Professor
Charles C. Hanna, Ed.D., Professor
R. J. Moriconi, Ed.D., Professor
Haig A. Rushdoony, Ed.D., Professor
Priscilla R. Smith, Ed.D., Professor
Lorna M. Swain, Ed.D., Professor
Roy Y. Yasui, Ph.D., Professor
Lloyd R. Thompson, Ed.D., Associate Professor
Nina R. Roşenthal, Ph.D., Assistant Professor
Consuelo Gallegos, B.A., Instructor
William G. Webster, Ed.D., Lecturer
Jean Collins, M.A., Lecturer
Laurence J. Peter, Ph.D., Adjunct Professor

The College, in addition to curricula in the liberal arts, offers professional programs in the Division of Education to prepare candidates for certification in elementary and secondary school teaching, reading, school administration, and school counseling. Those students interested in teaching credential programs should make application to the Division of Education. Graduate programs leading toward a Master of Arts in Education with concentrations in elementary or secondary curriculum, administration, or in school counseling are also available to qualified students. Those students interested in graduate degree programs should obtain information from the Division of Education Office. The College also offers specialized preparation for teachers in the area of the speech and hearing handicapped, as described in the Communication Studies section of this catalog, and in the area of learning handicapped and school psychology as described in the Psychology section of this catalog.

Professional programs in education are designed to help students achieve those competencies which are essential to effective performance within the range of services authorized. All credential programs are presently approved by the Commission for Teacher Preparation and Licensing in fulfillment of certification regulations. The California State Board of Education and the Commission are empowered to change credential requirements without prior notice. The College will make changes in programs leading to credentials whenever revisions are reported to it in the California Administrative Code, Title 5, Education, or by other official notifications from the Commission for Teacher Preparation and Licensing.
TEACHING CREDENTIAL PROGRAMS

California State College, Stanislaus is authorized to prepare students to teach in either the elementary or secondary levels. Under the Credentialing Law of 1972 (Ryan Act) these are the Multiple Subjects Credential (elementary schools) and Single Subject Credential (secondary schools).

I. MULTIPLE SUBJECTS CREDENTIAL (ELEMENTARY SCHOOL TEACHING)

A. Academic Requirements

1. Completion of a B.A. degree with a major other than Education. Normally the student completes the major in Liberal Studies (see the Liberal Studies section of the catalog). The Bilingual/Cross-Cultural Liberal Studies Program differs from the other concentrations. (See the Bilingual/Cross-Cultural Emphasis and Concentration section of the catalog.)

2. If a major other than Liberal Studies is completed, the student must pass the State-approved examination (N.T.E., Commons).

3. ENGL 3001 or 3005 must be completed before admission to the credential program.

B. Academic Recommendations

1. Select Liberal Studies electives and an area of concentration appropriate to elementary teaching (i.e., electives in cross cultural studies, special education, child development, foreign language, etc.).

2. If a major other than Liberal Studies is elected, utilize electives to prepare for the N.T.E. by selecting elective courses in Social Science, Mathematics-Science, Art-Humanities, and English-Speech.

3. Program the major for the junior year and leave the electives for the senior year to allow completion of the credential program.

4. Attend a multiple subject credential program orientation meeting your first semester on campus. Watch for meeting notice.

5. Cross-cultural and special education course work are strongly recommended.

C. Professional Requirements

1. Students must pass special screening before being permitted to enroll in professional education courses applicable to the Multiple Subjects Credential Program.
Forms for seeking admission to the Multiple Subjects Credential Program may be obtained from the Division of Education Office. Admission criteria are those in the catalog effective during the year of application and acceptance. Application must be completed by October 1st for Spring Semester admittance and March 1st for Fall Semester admittance.

2. Minimal cumulative GPA of 2.75, or a GPA of 3.00 in the most recent 30-semester hours completed, is required for admission. Once admitted, a GPA of 2.75 or better each term in education course work must be maintained to remain in the program. A grade of "C" or better must be earned in all required education course work.

3. The Liberal Studies major (waiver program) must be completed (or State-required scores on the N.T.E. Commons Examination filed with the Division of Education) before enrolling in Student Teaching (EDUC 3816/4816).

D. Professional Recommendations

1. When applying for admission to the Credential Program, plan to start education work when the academic course work is completed because preference will be given to applicants who are ready to take the education course work full time.

2. Obtain school aide experience to enhance professional background (see EDUC 2000, 2970, and 3000).

E. Required Course Work for the Preliminary Multiple Subjects Credential (24 units)

<table>
<thead>
<tr>
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<th>Units</th>
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<tbody>
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<tr>
<td>EDUC 3120.</td>
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<tr>
<td>EDUC 3130.</td>
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<td>EDUC 3250.</td>
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<table>
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<tr>
<th>Semester II</th>
<th>Units</th>
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<tbody>
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<td>EDUC 3816.</td>
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<tr>
<td>EDUC 4816.</td>
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</table>

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F. Requirements for the Clear Multiple Subjects Credential (Fifth Year Completed)

1. To be recommended for a Clear Credential, students must complete a 30-unit approved program of post-B.A. upper division/graduate course work with a 2.75 or better GPA. The Fifth Year must include at least 18 hours of resident course work and at least 12 hours of course work related to Multiple Subjects Teaching. Students are urged to apply Fifth Year course work toward Advanced Credentials and M.A. programs. The 30-unit Fifth Year program must be planned with and approved by the Fifth Year adviser.

2. The following courses are required to obtain a clear credential and may be completed as a part of either the Fourth or Fifth Year program:

   EDUC 3050. School Health Programs, 2 units
   EDUC 4120. Seminar: Diagnostic Teaching, 3 units
   EDUC 4840. Seminar-Analysis & Strategies of Teaching, 3 units

II. MULTIPLE SUBJECT CREDENTIAL WITH BILINGUAL/CROSS-CULTURAL EMPHASIS

A. The Liberal Studies waiver program with the Bilingual/Cross-Cultural Emphasis and Concentration is recommended for students who wish to be admitted to the Multiple Subjects Credential Program with a Bilingual/Cross-Cultural Emphasis (see the Bilingual/Cross-Cultural section of this catalog).

B. Presently, this program is limited to students who are literate in both English and Spanish. Admission to the Emphasis Program is contingent upon screening for language skills, cultural knowledge, and teaching aptitude in addition to the regular Multiple Subjects Credential admissions requirements and procedures outlined above (I. A-E). Spanish or other majors are also acceptable, but the student will need to select by advisement elective course work to prepare for required language proficiency and cultural knowledge as well as file with the Division of Education the State-required N.T.E. Commons Examination minimum scores.

C. Students will complete the following courses:

   EDUC 3011. Foundations of Elementary Education: Bilingual, 3 units
   EDUC 3141. Elementary Curriculum & Instruction: Bilingual I, 3 units
   EDUC 3142. Elementary Curriculum & Instruction: Bilingual II, 3 units
EDUC 3251. Reading Instruction in the Elementary School: Bilingual/Cross-Cultural, 3 units
*EDUC 3816. Multiple Subjects Student Teaching I, 6 units
EDUC 4812. Multiple Student Teaching, Bilingual, 6 units

D. Complete the Fifth Year program and course work as outlined above (I. F).

BILINGUAL/CROSS-CULTURAL SPECIALIST CREDENTIAL

This advanced credential program is being developed. Information and advisement will be provided by the Division of Education when the program is approved.

III. SINGLE SUBJECT CREDENTIAL (Secondary School Teaching)
A. Academic Requirements

1. Complete a B.A. degree, generally with a major in a single subject state-approved subject matter "waiver program."

2. Complete one of the following single subject waiver programs or file with the Division of Education a passing score on the N.T.E. Area Examination for the selected subject matter area.

<table>
<thead>
<tr>
<th>Single Subject Waiver for:</th>
<th>Subject Matter Programs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>Art</td>
</tr>
<tr>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Speech Communication</td>
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<tr>
<td>Government</td>
<td>French</td>
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<tr>
<td>History</td>
<td>German</td>
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<tr>
<td>Life Science</td>
<td>Spanish</td>
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<td>Mathematics</td>
<td>Biological Sciences</td>
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<td>Music</td>
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<tr>
<td>Physical Education</td>
<td>Music</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>Social Sciences</td>
</tr>
</tbody>
</table>

*CTPL Approval Pending*

*A student who demonstrates strong teaching skills gained from two or more years of full-time employment as a bilingual teacher-aide may complete EDUC 3816 for credit by taking a "Credit by Challenge Examination." Consult the Chair of the Division of Education for specific requirements and procedures. The cost of the examination is $10.00.*
Education

The College does not offer majors in Industrial Arts, Business, Home Economics, or Agriculture, but students who have completed approved waiver programs elsewhere may apply to the Credential Program.

3. ENGL 3001 or 3005 must be completed before admission to the Credential Program.

B. Academic Recommendations

1. Students should complete the major before entering the professional program since the year-long, full-day, field-site program generally prohibits much concurrent academic course work.

2. Attend a Single Subject Credential Program orientation meeting your first semester on campus. Watch for the meeting notice.

3. Cross-cultural and special education course work is strongly recommended.

C. Professional Requirements

The single subject credential program is field centered and performance based. It integrates theory and practice by providing an on-going experience, within a school setting, which focuses on the attainment of the knowledge and skills which characterize effective teaching. Students are at one of two centers daily from 7:30 a.m. until 12:30 p.m., late August through mid-June.

1. Students must pass formal screening before being permitted to enroll in the program. Students make separate application for admission to the Single Subject Credential Program. Forms are obtained from the Division of Education office. Admission criteria are those in the catalog effective during the year of application and acceptance. The application folder must be completed by March 1st for the following Fall admission (program is open only once a year).

2. A minimum cumulative GPA of 2.75, or 3.00 in the most recent 30 units completed, and a 3.00 GPA in the upper division work of the major are required. Once admitted, the 2.75 overall and 3.00 in major field must be maintained or the student may be disqualified. A grade of "C" or better must be earned in all required education course work.

3. The Single Subject waiver program must be completed or the State-required (N.T.E., Area) minimal score must be filed with the Division of Education before the student will be permitted to enroll in the final segment of field practicum (EDUC 4852).
D. Professional Recommendations
1. Utilize electives toward a second teaching major to enhance employability.
2. Obtain school aide experiences to enhance professional background (see EDUC 2000 or 3000).

E. Required Course Work for the Preliminary Single Subject Credential (24-27 units).

**FALL**
- EDUC 4851. Field Practicum: Secondary Education I, 6 units
- EDUC 4151. Secondary Education Seminar I, 2 units
- EDUC 4161. Single Subject Instruction I, 2 units
- *EDUC 3470. Reading Instruction in the Secondary School, 3 units

**WINTER**
- EDUC 4152. Secondary Education Seminar II, 4 units

**SPRING**
- EDUC 4852. Field Practicum: Secondary Education II, 6 units
- EDUC 4153. Secondary Education Seminar III, 2 units
- EDUC 4162. Single Subject Instruction II, 2 units

F. Requirements for the Clear Single Subject Credential (Fifth Year Completed)
1. To be recommended for a Clear Credential, the student must complete a 30-unit approved program of post-B.A. upper division/graduate course work with a GPA of 2.75 or better. The Fifth Year must include at least 18 units of residence course work and at least 12 units of course work related to Single Subject teaching. Students are urged to apply the Fifth Year work towards additional teaching majors or advanced credentials and M.A. programs. The 30 units must be planned with and approved by the Fifth Year adviser.
2. The following courses are required to obtain a Clear Credential and may be completed as part of either the Fourth or Fifth year program:
   - EDUC 3050. School Health Programs, 2 units
   - EDUC 4840. Seminar: Analysis & Strategies of Teaching, 3 units
   - OR EDUC 4120. Seminar: Diagnostic Techniques of Teaching, 3 units

*EDUC 3470 is optional for Art, Home Economics, Industrial Arts, Music, and Physical Education, but it is strongly recommended for all.
Education

ADVANCED CREDENTIALS
AND
MASTER OF ARTS IN EDUCATION PROGRAMS

CATEGORIES OF ENROLLMENT

The Unclassified Graduate student, finishing Fifth Year course work or taking professional growth courses, must advance to classified standing (see below) to become enrolled in an advanced credential and/or M.A. program.

Step 1. Graduate: Conditionally Classified
Students who have applied to enter the M.A. and/or an advanced credential program and who are completing the Division of Education program application procedures.

Step 2. Graduate: Classified (Acceptance into a Program)
Students who have been advanced to candidacy in the M.A. in Education program and/or have been reviewed and accepted by the appropriate Advisory Committee: Administrative Services, Pupil Personnel Services, or Reading.

MASTERS PROGRAM (Coordinator: Dr. Priscilla R. Smith)

The Master of Arts in Education is designed to meet the professional growth needs of school professionals. Course work is offered late afternoons and evenings. The masters program may be completed in one of three areas of specialization: (1) Curriculum & Instruction, (2) Administration, and (3) School Counseling. Programming worksheets which outline required and elective course work for each specialization may be obtained in the Division of Education Office.

APPLICATION PROCESS: MASTERS PROGRAMS AND ADVANCED CREDENTIALS

Students who plan to enroll in a graduate program in Curriculum & Instruction, Administrative Services, or School Counseling must complete the following steps:

1. Apply to the College for admission. (Fill out Part B, 11, Masters degree only, M.A. and credential, credential only). Forms are available from the Office of Admissions.

2. Apply to the graduate program of the Division of Education. Forms are available in the Division of Education.

Application procedures include:

a. Declaration of Intent (Form MA-1)
b. Transcripts verifying baccalaureate degree and all course work beyond
c. Vita/Resume
d. Two letters of recommendation, or placement file
e. GRE Scores (Verbal, Quantitative and Advanced Education)

f. Copy of valid California Teaching Credential or equivalent (if M.A. only, then any valid teaching credential).

3. After review and acceptance by the Graduate Committee, the student is accepted as a pre-candidate. A program is planned with the assigned adviser and course work up to nine units is pursued.

a. While a pre-candidate and/or conditionally classified, students working toward the Administrative Services, School Counseling, or the Reading Specialist Credential will be interviewed by an appropriate selection committee. See the appropriate credential coordinator for further details.

b. Following favorable action by the Division Graduate Studies Committee and the selection committee, candidates with a 3.0 GPA in the first nine units, may apply for Graduate: Classified standing through their advisers.

4. When advanced to Graduate: Classified standing by the Graduate Studies Committee of the Division of Education, M.A. candidates establish their Masters Committee and complete the remaining course work.

REQUIREMENTS FOR M.A. DEGREE AND ADVANCED CREDENTIALS

Students planning to complete both an M.A. and an advanced credential should plan their programs carefully with their advisers. The student's official program is the course work approved in advance by the student's graduate adviser. A minimum of 30 units is required for the degree. Students must maintain a minimum overall GPA of 3.00 in graduate work. A "C" or better must be earned in all course work. The M.A. program requires each candidate to complete one of the following: a thesis or project, three approved masters papers, or a written comprehensive examination. Each M.A. student is also required to pass an oral examination.

Listed below are course requirements for each of the three areas of specialization in the M.A. program. Students seeking the advanced credential and the M.A. will take all of the required courses and select electives with adviser approval.

PROGRAMS

READING SPECIALIST CREDENTIAL (Coordinator: Dr. Jack A. Graves)

Elementary or secondary experience under standard certification and intensive and extensive experience in reading at the K-12 level are required for admission to this program. The program totals 30 hours of course work and field experience. See Division of
Education

Education Office and the Reading Specialist Credential Coordinator for admission information and advisement. The Masters degree, in Curriculum and Instruction-Reading, is optional.

Courses required for the Credential:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 4050</td>
<td>Reading Skills: Assessment &amp; Evaluation</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 3250</td>
<td>Reading Instruction in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>OR EDUC 3470</td>
<td>Reading Instruction in the Secondary School</td>
<td></td>
</tr>
<tr>
<td>EDUC 4100</td>
<td>Improving Reading: K-12</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 4240</td>
<td>Reading Instruction in the Primary Grades</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 4250</td>
<td>Reading Instruction in the Intermediate Grades</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 5250</td>
<td>Reading Diagnosis and Remediation</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5350</td>
<td>Research &amp; Trends in Reading &amp; Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5910</td>
<td>Reading Improvement Center</td>
<td>3+3</td>
</tr>
<tr>
<td>SPCH 3000</td>
<td>Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4602</td>
<td>Children's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**PUPIL PERSONNEL SERVICES CREDENTIAL: SCHOOL COUNSELING**

(Coordinator: Dr. Nina Rosenthal)

This program is particularly designed for teachers. Teacher education course work is part of the program. Requirements include elementary and secondary teaching certification, the M.A. in Education in School Counseling, and counseling field experiences at the elementary and secondary levels, as well as other agencies. See the Division of Education and the School Counseling Credential Coordinator for admission information and advisement.

The course work (in addition to the Multiple Subjects or Single Subject Credential prerequisite program) is as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 3790</td>
<td>Introduction to Counseling Theory</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4470</td>
<td>Introduction to Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td>OR EDUC 5640</td>
<td>The Counselor</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5010</td>
<td>Education in Society</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5050</td>
<td>Methods of Research in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5060</td>
<td>Theories of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5530</td>
<td>Testing in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5540</td>
<td>Exceptional Children &amp; Youth</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5570</td>
<td>Counseling &amp; Guidance in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5600</td>
<td>Family Counseling &amp; Community Resources</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5610</td>
<td>Educational &amp; Occupational Information</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5650</td>
<td>School Group Guidance &amp; Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5760</td>
<td>Pupil Personnel Services Seminar</td>
<td></td>
</tr>
<tr>
<td>EDUC 5990</td>
<td>Thesis or Project (2+2), (optional by advisement)</td>
<td>0-4</td>
</tr>
<tr>
<td>EDUC 6940</td>
<td>Fieldwork: School Counseling (2+2)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Units: 41-45**
ADMINISTRATIVE SERVICES CREDENTIAL

(Coordinator: Dr. William G. Webster)

The program is designed to prepare students for their initial administrative or supervisory assignments at the Masters level of proficiency. Requirements include 5 years of teaching experience, completion of the M.A., and the competencies included in the courses listed below. See the Division of Education and Administrative Services Credential Coordinator for admission information and advisement. (Pending program course work changes will be provided students via 1978-79 programming sheets.)

The course work to meet Ryan requirements is as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 5010</td>
<td>Education in Society</td>
<td>3</td>
</tr>
<tr>
<td>OR EDUC 5040</td>
<td>Philosophy of Education</td>
<td>2-3</td>
</tr>
<tr>
<td>EDUC 5050</td>
<td>Methods of Research in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5060</td>
<td>Theories of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5310</td>
<td>Curriculum Planning &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5500</td>
<td>Organization of Public Education</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 5510</td>
<td>Supervision of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5520</td>
<td>Legal &amp; Financial Aspects of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5550</td>
<td>Administration of Individual Schools</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 5560</td>
<td>Educational Leadership</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 5720</td>
<td>Seminar in School Supervision &amp; Administration</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 5990</td>
<td>Thesis or Project (2+2) (optional by advisement)</td>
<td>0-4</td>
</tr>
<tr>
<td>EDUC 6940</td>
<td>Field Work - Supervision (2+2)</td>
<td>4</td>
</tr>
</tbody>
</table>

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MASTERS IN CURRICULUM AND INSTRUCTION

Concentrations in Curriculum and Instruction are available for graduate students. These include Elementary, Secondary, Early Childhood, Reading, and Bilingual/Cross-Cultural. Other concentrations may be developed by advisement.

<table>
<thead>
<tr>
<th>Program Details</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>One from: EDUC 5010, 5030, or 5040</td>
<td>2-3</td>
</tr>
<tr>
<td>Required: EDUC 5050, 5060, 5770</td>
<td>8</td>
</tr>
<tr>
<td>Curriculum &amp; Instruction concentration area</td>
<td>9-15</td>
</tr>
<tr>
<td>Electives by advisement, including EDUC 5990</td>
<td>11-4</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

See Division of Education and the M.A. Coordinator for admission information and advisement.
COURSE DESCRIPTIONS

Lower Division

EDUC 1000. Participation in Tutoring (1)

Consideration of the role of the tutor and the teacher in the school. Values and limitations of various learning situations. May be repeated for a total of 3 units. Prerequisites: T.B. clearance and consent of instructor.

EDUC 2000. Introduction to Education (2)

An overview of the field of education and the responsibilities of teaching. Designed for students contemplating entrance into the field of teaching at the elementary, secondary, or college level, and for others who desire a general overview of education in the U.S. Recommended but not required in the credential program. Prerequisites: T.B. clearance and consent of instructor.

EDUC 2970. Selected Topics offered during Winter Term (4)

Upper Division

EDUC 3000. The Instructional Aide (2)

Observation and participation in an educational setting as an instructional or teacher aide; practices related to working with children and youth, especially recommended for students interested in teaching. May be repeated for a total of 4 units credit. Prerequisites: T.B. clearance and consent of instructor.

EDUC 3010. Foundations of Elementary Education (3)

Study of selected sociologically and psychologically based knowledge, skills, and understandings related to teaching in the elementary schools. Prerequisite: Admission to the credential program; EDUC 2000 & 3000 recommended.

EDUC 3011. Foundations of Elementary Education: Bilingual (3)

Study of selected sociologically and psychologically based knowledge, skills, and understanding related to teaching in the elementary schools. Emphasis on bilingual issues and concerns. Prerequisites: Admission to the credential program and permission of MSC adviser. EDUC 3030 recommended.

EDUC 3030. Ethnic Groups in Public Education (2)

Sociological study of selected ethnic groups in American public education; consideration of characteristics, trends, problems, and general instructional implications. Prerequisite: Junior standing.

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EDUC 3050. School Health Programs (2)

Nature and scope of health education as outlined in the Framework for Health Instruction in California Public Schools, K-12, current problems related to individual, family, and community health education. Prerequisites: EDUC 3010 or 3020, and consent of credential adviser.

EDUC 3120. Elementary Curriculum and Instruction I (3)

Introduction to the skill subject of language arts and mathematics. Emphasis on communication skills; speaking, listening, reading, and writing in the multiple subjects classroom. Emphasis given to developing skills for the teaching of mathematics. Prerequisite: Admission to credential program.

EDUC 3130. Elementary Curriculum and Instruction II (3)

Teaching concepts and applications emphasizing social studies and science in multiple subjects grades. Instructional planning, demonstrations, and materials based on modern strands and techniques. Prerequisite: EDUC 3010 or equivalent, or consent of credential adviser.

EDUC 3141. Elementary Curriculum & Instruction: Bilingual I (3)

Introduction to the skills, concepts, and applications required for bilingual multiple subjects teaching in mathematics and science. Planning, demonstration, and materials based upon modern strands and techniques. Prerequisites: EDUC 3011 and consent of bilingual credential adviser.

EDUC 3142. Elementary Curriculum & Instruction: Bilingual II (3)

Introduction to the skills, concepts, and applications required for bilingual multiple subjects teaching in language arts and social studies. Planning, demonstrations, and materials based upon modern strands and techniques for bilingual instruction. Prerequisites: EDUC 3011 and consent of bilingual credential adviser.

EDUC 3250. Reading Instruction in the Elementary School (3)

Includes an understanding of the principles and practices of reading (K-6) and its relation to the language arts; various approaches to reading; development of reading lessons; word analysis skills, including phonics; manipulative aids in reading. Prerequisites: Admission to credential program and consent of credential coordinator.
EDUC 3251. Reading Instruction in the Elementary School: Bilingual/Cross-Cultural (3)

Introduction to multiple subjects instruction reading: principles and practices in Spanish and English. Reading related to the language arts; various approaches to reading in Spanish and English; development of reading lessons; word analysis skills, including phonics; manipulative aids in reading. Prerequisites: EDUC 3011 and consent of bilingual credential adviser.

EDUC 3360. Instructional Media (2)

Use of libraries, instructional materials centers, and audio-visual materials and equipment. Preparation and evaluation of instructional materials. Prerequisite: Admittance to credential program or teaching experience.

EDUC 3470. Reading Instruction in the Secondary School (3)

Selection and organization of materials; instructional procedures for developmental reading programs (7-12), reading and the content subjects; analysis of research concerning reading needs; field practicum. Prerequisites: Admittance to credential program and consent of credential coordinator.

EDUC 3811. Multiple Subjects Credential Student Teaching (8)

Supervised student teaching in a multiple subject classroom. Includes weekly on-campus seminars. Restricted to Learning Handicapped Credential candidates. EDUC 4870 or 4 additional units of student teaching must be earned before recommendation to the multiple subjects preliminary credential. Prerequisite: Consent of Multiple Subjects credential coordinator.

EDUC 3814. Multiple Subjects Student Teaching I (4)

Supervised observation-participation and student teaching in public elementary school settings. Includes a scheduled on-campus seminar dealing with legally required instruction in elementary schools, the structure of public education, and student teaching problems. CR or NC grade is given. Prerequisites: EDUC 5010, 3250, 3120, 3130 and consent of credential coordinator.

EDUC 3816. Multiple Subjects Student Teaching I (6)

Same as EDUC 3814; longer assignment.
EDUC 4050. Reading Skills: Assessment and Evaluation (1)

Examination of candidate's capabilities in the area of reading instruction. Designed only for those interested in the Reading Specialist Credential. Prerequisites: One full year of credentialed teaching including the teaching of reading, consent of Reading Specialist Credential Coordinator and instructor.

EDUC 4100. Improving Reading: Grades K-12 (4)

Teaching of analysis of children's reading patterns; individualizing, grouping, production, and use of materials in skills development; correlation of phonics as part of reading developmental program. Includes 50 hours of directed field experiences in reading. Students must be teaching full-time to take this course. Prerequisites: EDUC 3250 or 3470, and consent of instructor.

EDUC 4120. Seminar: Diagnostic Techniques of Teaching (3)

Methods of diagnosing student difficulties and prescribing remediation in terms of instruction and curriculum. Performance-based instruction evaluation. Prerequisite: Completion or concurrent enrollment in EDUC 3816 or completion of EDUC 4851 or consent of credential adviser.

EDUC 4130. Special Education Strategies for the Classroom Teacher (3)

Planning to teach the mainstreamed special education child in the regular classroom. Individualized diagnostic and prescriptive teaching for the learning handicapped; principles and practices. Includes 20 hours of directed observation/participation. Does not meet Special Education Credential requirements. Prerequisite: Valid teaching credential. EDUC 5540 recommended.

EDUC 4151. Secondary Education Seminar I (2)

While engaged in an accompanying Practicum (EDUC 4851), the student begins the study of competency-based instruction, theory and knowledge of methodology, and a variety of processes of instruction which focus on the individual learner in the secondary school, including therapeutic instruction. Daily participation in the field and attendance at regularly scheduled seminar sessions required for completion. Prerequisites: Admission to CSCS Secondary Teacher Education Program and concurrent enrollment in EDUC 4851 and 4161.
EDUC 4152. Secondary Education Seminar II (4)

A continuation of EDUC 4151, the second segment of the study of competency-based instruction, theory and knowledge of methodology, and a variety of instructional processes, including therapeutic instruction. Within this part of the program, there is a transition from a focus on the individual learner and small groups of learners to a focus on large groups of students in classroom/instructional settings in the secondary school. Daily participation in the field and attendance at regularly scheduled seminar sessions required for completion. (Includes one unit of Field Practicum). Prerequisites: Successful completion of EDUC 4151, 4161, and 4851.

EDUC 4153. Secondary Education Seminar III (2)

Continuation of EDUC 4152. While engaged in an accompanying Practicum (EDUC 4852), the student completes the third segment of the study of competency-based instruction, theory and knowledge of methodology, and a variety of processes of instruction which focus on large groups of learners in secondary school settings. Daily participation in the field and attendance at regularly scheduled seminar sessions required for completion. Prerequisites: Successful completion of EDUC 4151, 4152, 4161, and 4851. Concurrent enrollment in EDUC 4162 and 4852.

EDUC 4161. Single Subject Instruction I (2)

Introduction to teaching in single subject instructional settings in the secondary school: Study of theory and methodology in the student's single subject area; to the study of the scope and sequence of the single subject area as part of the total school curriculum; to analysis of current trends and practices in teaching the single subject; to review of courses of study and instructional materials; to use of instructional techniques; to analysis of practices appropriate to different types of secondary students; to evaluation of student learning in single subject areas. Prerequisites: Admission to CSCS Secondary Teacher Education Program and concurrent enrollment in EDUC 4151 and 4851.

EDUC 4162. Single Subject Instruction II (2)

Continuation of EDUC 4161, teaching in single subject instructional settings in the secondary school; increased attention given to teaching single subjects to large groups of secondary students. Whenever possible, this segment of the program will be directed by specialists from appropriate academic areas of the College. Prerequisites: Successful completion of EDUC 4151, 4152, 4161, and 4851; concurrent enrollment in EDUC 4153 and 4852.
EDUC 4200. Teaching the Culturally Different (3)

Principles of adapting school instructional materials and programs to the particular needs and interests of children of minority ethnic groups. Identification of suggested teaching competencies. Includes selected field experiences. Prerequisite: Upper division standing.

EDUC 4210. Outdoor Education (2)

Introduction to outdoor teacher education, with appropriate teaching procedures and instructional materials. Includes one weekend directed outdoor school field experience. Prerequisite: Consent of instructor.

EDUC 4220. Strategies for Teaching the Gifted (3)

Teaching the gifted learner in regular classrooms and special programs. Individualized and creative teaching models based upon modern theory and practice. Includes 20 hours of directed observation/participation. Prerequisite: Valid teaching credential and teaching experience or consent of instructor.

EDUC 4230. Principles of Early Childhood Education (3)

An analysis of the early childhood education program from its beginning to today. An overview of the relationships of the school, the child, and the home. Prerequisites: Valid teaching credential and consent of education adviser.

EDUC 4240. Reading Instruction in the Primary Grades (2)

Emphasis on all aspects of reading readiness, including methods and materials; techniques of beginning reading, including language experience. Prerequisites: EDUC 3250 or 4100, and consent of education adviser.

EDUC 4250. Reading Instruction in the Intermediate Grades (2)

Emphasis on reading to learn, particularly reading-study skills; individualized instruction; extension of reading concepts and phonics. Prerequisites: EDUC 3250 or 4100 and consent of education adviser.

EDUC 4260. Improving Elementary Social Studies (3)

Current practices, trends, and concepts in today's elementary social studies. Planning, developing, and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of education adviser.
Education

EDUC 4270. Improving Elementary Language Arts (3)

Current practices, trends and concepts in today's elementary language arts. Planning, developing and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of education adviser.

EDUC 4280. Improving Elementary Mathematics (3)

Current practices, trends and concepts in today's elementary mathematics. Planning, developing and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of education adviser.

EDUC 4290. Improving Elementary Science (3)

Current practices, trends and concepts in today's elementary science. Planning, developing and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of education adviser.

EDUC 4310. Observation-Participation and Curriculum and Instruction in Special Education (4)

Introduction to teaching children with disabilities; emphasis upon directed observation-participation field work. Introduction to assessment, evaluation and prescription, theory, and practice. Prerequisites: Admission to Multiple Subjects Credential and Learning Handicapped Credential Programs and consent of education adviser.

EDUC 4320. Curriculum and Instruction: Learning Handicapped (4)

Advanced concepts, strategies programs, issues, and research in the teaching of learning handicapped children. Working with special education students in various types of classrooms. Prerequisites: EDUC 3811, 4310, and consent of education adviser.

EDUC 4812. Multiple Subjects Student Teaching: Bilingual. (6)

Supervised observation, participation, and student teaching in a public multiple subjects bilingual classroom setting. Includes a scheduled on-campus seminar meeting dealing with professional ethics, special activities, use of audiovisual equipment, and student teaching problems. Prerequisites: EDUC 3816 or equivalent and consent of bilingual credential adviser.

EDUC 4816. Multiple Subjects Student Teaching II (6)

Supervised observation, participation, and student teaching in public multiple subjects school settings. Includes a weekly on-campus seminar meeting dealing with professional ethics and
activities, use of audiovisual equipment, and student teaching problems. CR or NC grade is given. Prerequisites: EDUC 3816 and consent of credential coordinator.

EDUC 4818. Multiple Subjects Student Teaching II (8)

Same as EDUC 4816; longer assignment.

EDUC 4840. Seminar: Analysis and Strategies of Teaching (3)

Analytical methods used to study the instructional process. Investigation theories and methods in instructional analysis. Emphasis on strategies of teaching. Prerequisites: Completion or concurrent enrollment in EDUC 3816 or completion of EDUC 4851, or consent of credential adviser.

EDUC 4851. Field Practicum: Secondary Education I (6)

First segment of intensive field-site sequence of experiences which focus on individual, therapeutic, and shall group instruction of secondary students in both a junior and a senior high school within a single school district. Daily participation in the field and adherence to the public school calendar required for completion. Observation and supervision of the college student is provided jointly by district and CSCS personnel. Prerequisites: Admission to CSCS Secondary Teacher Education Program and concurrent enrollment in EDUC 4151 and 4161.

EDUC 4852. Field Practicum: Secondary Education II (6)

A continuation of EDUC 4851. The second segment of an intensive field-site sequence of experiences which focus on working with large groups of secondary students in classroom/instructional settings in both a junior and a senior high school within a single school district. Daily participation in the field and adherence to the public school calendar required for completion. Observation and supervision of the college student is provided jointly by district and CSCS personnel. Prerequisites: Successful completion of EDUC 4851, 4151, 4152, and 4161; and concurrent enrollment in EDUC 4153 and 4162.

EDUC 4870. Student Teaching: Learning Handicapped (8)

Supervised student teaching in the Learning Handicapped classroom. Weekly seminars. Prerequisites: EDUC 4320 and consent of credential adviser.

EDUC 4950. Selected Topics in Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in education. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.
Education

EDUC 4970. Selected Topics offered during Winter Term (4)

EDUC 4980. Individual Study (1-4)

For qualified undergraduate students in need of specialized study not available through regular programs. Request for individual study must be presented to the chair of the Division of Education prior to registration. May be repeated for a total of 6 units. Prerequisites: Divisional approval and consent of instructor.

Graduate

EDUC 5010. Education in Society (3)

Study of social forces influencing the educative process, the curriculum and institutional and professional roles in American public education. Analysis of characteristics and problems of ethnic groups in school and society. Prerequisites: Valid teaching credential and consent of education adviser.

EDUC 5030. Comparative Education (2)

Study of representative national educational programs, emphasis on the political, social, and economic determinants, and contemporary issues and trends. Prerequisites: Valid teaching credential and consent of education adviser.

EDUC 5040. Philosophy of Education (2)

Modern philosophies of education and their significance for contemporary educational practices. Recommended for experienced elementary and secondary teachers; a required course in advanced credential programs. Prerequisites: Valid teaching credential and consent of education adviser.

EDUC 5050. Methods of Research in Education (3)

Application of methods of research to problems in education. Emphasis on research methodology of the social and behavioral sciences. Prerequisites: Consent of graduate adviser and Graduate: Classified Standing.

EDUC 5060. Theories of Instruction (3)

Analysis and evaluation of learning and instructional theories as they apply to the classroom. Study of human teaching and learning. Fieldwork component included. Prerequisites: Graduate: Classified Standing or consent of instructor.

EDUC 5230. Curriculum in Early Childhood (3)

A study of early childhood curriculum, class organization,
methods, and materials. Prerequisites: EDUC 3010 and 4230 or equivalent, and consent of education adviser.

EDUC 5250. Reading Diagnosis and Remediation (3)

Understanding and correcting reading difficulties; use of procedures in preventing reading retardation; selecting and developing materials; making use of informal inventories; critiquing clinical and corrective techniques; analysis of research in these two areas. Prerequisites: EDUC 3250 or 3470, EDUC 4240 or 4250, teaching experience, and consent of instructor.

EDUC 5310. Curriculum Planning and Development (3)

Analysis of models in curriculum development; systematic planning for curriculum improvement; behavioral objectives. Prerequisites: Teaching experience and consent of education adviser and instructor.

EDUC 5320. New Developments in Education (2)

Evaluation of new developments in the schools affecting all educators. Issues, programs, organizational structure, curriculum innovations, instructional materials and methodology. Prerequisites: Teaching experience and consent of instructor.

EDUC 5330. Research and Trends in Math, Science, and Social Studies, K-12 (3)

Analysis and evaluation of K-12 curriculum with emphasis on math, science, and social studies; selected topics for extensive and intensive study. Prerequisites: Valid teaching credential, curriculum course work at the 4000 or 5000 level, and consent of education adviser and instructor.

EDUC 5350. Research & Trends in Reading and Language Arts (3)

Review of research and literature in reading and language arts; in-depth analysis of one or more related topics. Evaluations of trends. Prerequisites: EDUC 3250 or 3470, EDUC 4240 or 4250, and consent of education adviser and instructor.

EDUC 5500. Organization of Public Education (2)

Study of organizational concepts and practices in the public schools; legal bases for schools; financial planning and budget systems. Analysis of administrative theory. Prerequisites: Teaching experience and consent of education adviser and instructor.

EDUC 5510. Supervision of Instruction (3)

Techniques and practices used in school supervision; selection placement, and evaluation of school personnel; analysis of
Education

personnel administration. Prerequisites: Teaching experience and consent of education adviser and instructor.

EDUC 5520. Legal and Financial Aspects of Education (3)

Legal principles related to education as defined by laws and judicial interpretations, with special reference to the Education Code of California. Introduction to financing and budgeting systems. Prerequisites: Consent of instructor and education adviser.

EDUC 5530. Testing in Education (3)

Measurement and evaluation in education; techniques of test construction for classroom and school use; statistical aspects of testing; selection and use of standardized tests with emphasis on the typical student. Introductory course to M.A. and credential programs. Prerequisites: Consent of education adviser and instructor.

EDUC 5540. Exceptional Children and Youth (3)

Physical, intellectual, social and emotional deviations among children and youth; community resources, educational adjustments. Prerequisite: Teaching experience or consent of education adviser or instructor.

EDUC 5550. Administration of Individual Schools (2)

An analysis of personnel processes and utilization of appropriate materials and procedures to promote staff development; an analysis of specific school programs; an exploration of basic principles in administration appropriate for elementary and secondary administration and supervision. Prerequisites: Teaching experience or equivalent, and consent of education adviser and instructor.

EDUC 5560. Educational Leadership (2)

Analysis and practices of leadership skills; a study of various types of leadership, techniques employed in the development of positive relations in the school. Prerequisites: Teaching experience or equivalent, and consent of education adviser and instructor.

EDUC 5570. Counseling and Guidance in Education (3)

Roles, functions and responsibilities of the school counselor. Use of groups techniques in counseling and guidance. Working with community groups and emphasis on the culturally different student. Theory, practice, and trends. Prerequisite: Teaching experience or consent of education adviser.
EDUC 5600. Family Counseling and Community Resources (3)

Dynamics of relationships of family, community, and school; community-wide services; agency-school relationships; family visiting, including conferences, interviews, and referrals. Prerequisites: Valid teaching credential, and consent of education adviser and instructor.

EDUC 5610. Educational and Occupational Information (3)

Sources of occupational information; community and nationwide surveys; job analysis; procedures for relating vocational and self-information. Emphasis on meeting needs for school counselors in the area of career guidance. Prerequisites: Valid teaching credential, and consent of education adviser and instructor.

EDUC 5640. The Counselor (3)

Focus on the person as counselor, the becoming self of the counselor, his personal identity and integrity, and his authentic response to role conflict situations. The course is designed for people who (1) have had successful teaching experience, and (2) are enrolled in a counseling credential program or are practicing counselors, supervisors, or administrators. Prerequisites: PSYC 3790, admission to Pupil Personnel Services Credential Programs, and consent of credential adviser.

EDUC 5650. School Group Guidance & Counseling Techniques (2)

Using groups for guidance and counseling in the schools; theory and procedures for implementing groups; issues and problems; role and function of school counselors as group leaders. Includes a group laboratory experience. Prerequisites: Admission to the School Counseling Program; EDUC 5570 and 5640.

EDUC 5720. Seminar in School Supervision and Administration (2)

Case study analysis of practical problems in school administration and supervision. Open to practicing principals, supervisors, consultants, and students nearing completion of the administration/supervision M.A. program. Prerequisites: Completion of at least 20 units of Administrative Services Credential Program, and consent of credential adviser.

EDUC 5760. Pupil Personnel Services Seminar (3)

Current practices in pupil personnel services. Organization and administration of pupil personnel services. Legal principles applied to educational problems, confidentialities, and ethics. Open to practicing personnel and those near completion of program. Prerequisite: Consent of instructor.
Education

EDUC 5770. Seminar in Elementary and Secondary Education (2)

Analysis and evaluation of interrelationships among content, purposes, organization, policies, and practices in contemporary elementary and secondary schools. Prerequisites: Completion of at least 20 units of graduate program and consent of education adviser.

EDUC 5780. Seminar for Student Teaching Supervisors (2)

Seminar in student and beginning teacher supervision; principles and practices. Techniques of performance evaluation. Prerequisites: Valid California teaching credential, and current teaching experience.

EDUC 5910. Reading Improvement Center (3)

Study of techniques of reading diagnosis and prescription for selected children. In addition to class sessions, each student will be assigned an elementary pupil with whom to work in the Reading Improvement Center (at least 2 hours per week). May be repeated for a total of 6 units. Prerequisites: EDUC 5250, teaching credential, and consent of Reading Specialist Credential Coordinator.

EDUC 5950. Selected Topics in Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in education. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

EDUC 5970. Selected Topics offered during Winter Term (2-4)

EDUC 5980. Individual Study (1-4)

For graduate classified students in need of advanced and specialized study related to a thesis. Prerequisites: Approval of student's graduate committee, divisional approval, and consent of instructor. May be repeated for a total of 6 units.

EDUC 5990. Thesis or Project (2)+(2)

This enrollment involves individual consultation in the preparation of a master's thesis or project. To be repeated for a total of 4 units. Prerequisites: Consent of student's thesis chair and graduate committee.

EDUC 6940. Field Work - Administration-Supervision (2) or (4)

Actual work experience in the field for which student is seeking credential. Joint supervision by district and college.
personnel. May be repeated for a total of 4 units. Prerequisites: Admission to Administrative Services Credential Program and consent of credential adviser. Includes bi-weekly practicum.

EDUC 6941. Field Work - School Counseling (2)+(2)+(2)

Actual work experience in the field for which student is seeking credential. Joint supervision by district and college personnel. Prerequisites: Admission to Pupil Personnel Services Credential: School Counseling and consent of credential adviser. May be repeated for a total of 6 units. Includes bi-weekly practicum.

EDUC 6970. Selected Topics offered during Winter Term (4)

EDUC 6980. Individual Study (2-4)

For qualified students in need of advanced or specialized study. Requests for individual study must be presented to the chair of Division of Education 6 weeks prior to registration. May be repeated for a total of 6 units. Prerequisites: Divisional approval and consent of instructor.
English and Foreign Languages

Lawrence D. Berkoben, Ph.D., Professor of English
Joseph Brewer, Ph.D., Professor of English
James P. Jensen, Ph.D., Professor of English
Lola V. Johnson, M.A., Professor of English
Rosentene B. Purnell, Ph.D., Professor of English
Douglas H. Taylor, Ph.D., Professor of English
Robert K. Anderson, Ph.D., Associate Professor of Spanish
John E. Carroll, Ph.D., Associate Professor of English
Michael C. Fuller, Ph.D., Associate Professor of French
Gerhard Mack, Ph.D., Associate Professor of German
William H. Phillips, Ph.D., Associate Professor of English
Paul P. Reuben, Ph.D., Associate Professor of English
George Settera, Jr., Ph.D., Associate Professor of English
Gisela D. Tadlock, Ph.D., Associate Professor of Spanish
Alice F. Worsley, Ph.D., Associate Professor of English
Jack W. Williams, M.A., Associate Professor of English
Barbara M. Quevedo, Ph.D., Assistant Professor of Spanish

The Department of English and Foreign Languages offers the degrees of Bachelor of Arts, English; Master of Arts, English; Bachelor of Arts, French; Bachelor of Arts, Spanish; and degree minors in English, French, German, Spanish, and Journalism. Courses are offered in language, composition, literature, creative writing, and the film.

To students of English and the foreign languages many career options are open, including teaching, journalism, publishing, advertising, and writing; students also find that study in English and the language disciplines provides excellent preparation for postgraduate study and for careers in the medical and legal professions, government, business, and industry.

The various language and writing programs of the department are designed to provide students with the skills essential to fluent and mature expression in their chosen subject fields. Courses in literature and the film familiarize students, through a variety of critical and instructional approaches, with important literary works and forms ranging from traditional to contemporary, while encouraging informed and independent critical evaluations. Certain courses are indispensable for a proper grounding in a discipline, but beyond these the student encounters a wide selection of courses in planning a program.

**REQUIREMENTS FOR BACHELOR OF ARTS, ENGLISH**

English majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 33 upper division units; of these, no more than 11 units of CR graded course work may apply toward the major.
4. Complete a minor to be selected in consultation with the major adviser, or complete 18 units of course work in addition to the General Education requirements to be selected in consultation with the major adviser. These units must be taken outside the English program and should be demonstrably relevant to the study of literature and language.

5. Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.

**DEGREE MAJOR IN ENGLISH**

**Prerequisites to the Major:**

- ENGL 1000. English Composition, 3 units
- ENGL 1010. Introduction to Literature, 3 units
- ENGL 2010. Critical Approaches to Literature, 3 units

**The Major**

| Units |  
|-------|-------|-------|-------|
| 1. Composition. Students are expected to demonstrate proficiency in Advanced Composition (ENGL 3001 or 3005) | 3 |
| 2. Required Courses in Literature. The following courses are required for the major (ENGL 3110 and 3111 should be taken in the junior year) | 12 |
| ENGL 3110. Major British Authors to 1800 | 3 units |
| ENGL 3111. Major British Authors after 1800 | 3 units |
| ENGL 3400. Major American Authors | 3 units |
| ENGL 4300. Shakespeare | 3 units |
| 3. Required course in Language. One of the following courses is required for the major | 3 |
| ENGL 3800. Introduction to Linguistics | 3 units |
| ENGL 3815. Introduction to Bilingualism | 3 units |
| ENGL 4850. English Grammar | 3 units |
| ENGL 4860. Development of Modern English | 3 units |
| 4. Electives. Courses to be chosen in consultation with the major adviser | 14-15 |
| Total | 32-33 |

(Note: Prospective postgraduate students in English are encouraged to undertake the study of some foreign language while still undergraduates. Such students should also consult their English adviser concerning what courses in English will best prepare them for graduate study.)
English and Fer1i1n langu1111
DEGREE MINOR IN ENGLISH
Eighteen units, to include at least twelve upper division
units.

Lawer Division
Units
ENGL 1000.
ENGL 1010.

English Composition, 3 units
Introduction to Literature, 3 units

UPJ•r Division
1.

2.

Composition. Students are expected to
demonstrate proficiency in Advanced Composition
(ENGL 3001 or 3005) . . • . . . . . . . . . . .

3

Literature. The following courses are required
for the degree minor
. . . . . . . . . .

6

ENGL 3110 or 3111, 3 units
ENGL 3400, 3 units
3.

Course chosen in consultation with the minor
adviser.

3

Total

12

DEGREE MINOR IN JOURNALISM
Twenty-two to twenty-three units, to include at least
twelve upper division units.
Lower Di vision
ENGL 1000.
ENGL 2150.

English Composition
Newswriting . . . .

3

2

Upper Division
ENGL 3021. Journalism Laboratory . . .
ENGL 3022. Editing and Ethics . . . .
ENGL 3023. Press Law, 3 units
or ENGL 3024. History of Journalism
ENGL 4960. Seminar: Problems in Mass Media

3
3

3
3

Electives . .

5-6

Total

22-23

(Note: Units received in completion of the Journalism minor
may not be counted toward fulfillment of the requirements
for the English major.)
248


TEACHING CREDENTIALS

The requirements for English majors interested in obtaining an English single subject credential waiver are listed below. Please refer to the Education section of the catalog for a description of other requirements to be completed in obtaining a single subject credential.

SINGLE SUBJECT CREDENTIAL WAIVER PROGRAM
with a Bachelor of Arts Degree in English

Lower Division

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 1010</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Critical Approaches to Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 2002</td>
<td>Public Speaking, 3 units</td>
<td></td>
</tr>
<tr>
<td>or SPCH 2011</td>
<td>Approaches to Human Communication, 4 units</td>
<td></td>
</tr>
<tr>
<td>SPCH 2400</td>
<td>Oral Interpretation, 3 units</td>
<td></td>
</tr>
<tr>
<td>or DRAM 2500</td>
<td>Acting IA: Improvisation and Technique, 3 units</td>
<td></td>
</tr>
</tbody>
</table>

Upper Division

1. Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3001</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3400</td>
<td>Major American Authors</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3800</td>
<td>Introduction to Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4605</td>
<td>Adolescent Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4610</td>
<td>Curriculum &amp; Instruction: English</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Electives (9 units to be taken from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 3200</td>
<td>Stagecraft</td>
<td>4</td>
</tr>
<tr>
<td>*DRAM 4300</td>
<td>Theatre Workshop II, 2 units</td>
<td></td>
</tr>
<tr>
<td>ENGL 3011</td>
<td>Introductory Creative Writing, 3 units</td>
<td></td>
</tr>
<tr>
<td>*ENGL 3021</td>
<td>Journalism Laboratory, 5 units</td>
<td></td>
</tr>
<tr>
<td>ENGL 3500</td>
<td>Studies in Film, 3 units</td>
<td></td>
</tr>
<tr>
<td>ENGL 3815</td>
<td>Introduction to Bilingualism, 3 units</td>
<td></td>
</tr>
<tr>
<td>ENGL 4300</td>
<td>Shakespeare, 3 units</td>
<td></td>
</tr>
<tr>
<td>*SPCH 3911</td>
<td>Communication Projects, 2 units</td>
<td></td>
</tr>
<tr>
<td>SPCH 4100</td>
<td>Group Communication, 3 units</td>
<td></td>
</tr>
</tbody>
</table>

*May be repeated for credit in the English Waiver Program.
LIBERAL STUDIES CONCENTRATION IN ENGLISH

The following courses are required for the Liberal Studies concentration in English:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3110</td>
<td>Major British Authors to 1880</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 3111</td>
<td>Major British Authors After 1800</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3400</td>
<td>Major American Authors</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives in English are to be selected under advisement, to include a minimum of 9 upper division units. 14 units

Total: 20 units

For a student preparing to take the multiple-subject credential, the following courses would be particularly appropriate for the concentration. (No course may be double-counted for both area requirements and the concentration.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3011</td>
<td>Introductory Creative Writing</td>
</tr>
<tr>
<td>ENGL 3500</td>
<td>Studies in Film</td>
</tr>
<tr>
<td>ENGL 3800</td>
<td>Introduction to Linguistics</td>
</tr>
<tr>
<td>*ENGL 3805</td>
<td>Introduction to Historical Linguistics</td>
</tr>
<tr>
<td>*ENGL 3816</td>
<td>Language of Primary-Age Children</td>
</tr>
<tr>
<td>*ENGL 3950</td>
<td>World Literature in Translation</td>
</tr>
<tr>
<td>ENGL 4105</td>
<td>English Novel I</td>
</tr>
<tr>
<td>ENGL 4106</td>
<td>English Novel II</td>
</tr>
<tr>
<td>ENGL 4107</td>
<td>American Novel I</td>
</tr>
<tr>
<td>ENGL 4108</td>
<td>American Novel II</td>
</tr>
<tr>
<td>ENGL 4115</td>
<td>Types of English Poetry</td>
</tr>
<tr>
<td>ENGL 4120</td>
<td>Types of American Poetry</td>
</tr>
<tr>
<td>ENGL 4130</td>
<td>Dramatic Literature I</td>
</tr>
<tr>
<td>ENGL 4135</td>
<td>Dramatic Literature II</td>
</tr>
<tr>
<td>ENGL 4300</td>
<td>Shakespeare</td>
</tr>
<tr>
<td>ENGL 4305</td>
<td>Chaucer</td>
</tr>
<tr>
<td>ENGL 4310</td>
<td>Milton</td>
</tr>
<tr>
<td>*ENGL 4600</td>
<td>Tutorial Projects in English</td>
</tr>
<tr>
<td>*ENGL 4602</td>
<td>Children's Literature</td>
</tr>
<tr>
<td>*ENGL 4603</td>
<td>Adolescent Literature</td>
</tr>
<tr>
<td>ENGL 4850</td>
<td>English Grammar</td>
</tr>
<tr>
<td>ENGL 4860</td>
<td>Development of Modern English</td>
</tr>
</tbody>
</table>

* These courses cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.
Applications for admission to the Master of Arts program in English and for advancement to candidacy should be filed in the office of the Department of English and Foreign Languages. Each student may elect either the Thesis or the Non-Thesis Programs described below.

Prerequisites for Admission to the General Program:

1. B.A. degree with a major in English
2. Undergraduate GPA of 3.0 in English courses.

Requirements for the Master's Degree

1. Completion of at least 30 units to include the following:
   A. ENGL 5000. Seminar: Graduate Studies in English, 5 units
   B. Minimum of 15 units to be completed from among seminars in the following subject areas: **
      ENGL 5100. Seminar: Medieval Literature, 4 units
      ENGL 5200. Seminar: The Renaissance, 4 units
      ENGL 5300. Seminar: The Enlightenment and 18th Century, 4 units
      ENGL 5400. Seminar: The Nineteenth Century, 4 units
      ENGL 5500. Seminar: The Twentieth Century, 4 units
      ENGL 5600. Seminar: American Literature, 4 units
   C. 1. A maximum of five units to be taken in ENGL 5990. Thesis
       2. A maximum of ten units of postbaccalaureate, 4000-level courses, as approved by the graduate adviser.
   D. Comprehensive examinations:
      Candidates must pass a written and an oral examination covering major figures in English and American literature.
   E. Reading knowledge of an appropriate foreign language as determined by the Department of English and Foreign Languages.

Requirements for the Thesis Program:

1. A minimum of 30 units of approved graduate credit.
2. The submission of an approved thesis.
3. A written general literature examination.
4. An oral examination upon the thesis and the written examination.

** Specific seminar titles will be announced in the Class Schedule.
English & Foreign Languages

REQUIREMENTS FOR THE NONTHESIS PROGRAM

1. A minimum of 30 units of approved graduate credit.
2. The submission of two approved seminar papers written in two different subject areas.
3. A written general literature examination.
4. An oral examination covering the seminar papers and the written examination.

General Prerequisites:

Normally, an undergraduate major in English is expected for admission to graduate seminars. Consultation with an English graduate adviser and his approval is required for all graduate credit courses.

COURSE DESCRIPTIONS

Lower Division

ENGL 0100. Writer's Workshop (1-4)

A course emphasizing the development of individual students' writing abilities, with intensive practice in basic writing skills, including grammar, usage, and other processes of composition.

ENGL 1000. English Composition (3)

Directed writing based upon analytical reading of expository prose, including fiction and nonfiction. Designed to help students achieve a clear, mature expository style. Offered every fall and spring.

ENGL 1010. Introduction to Literature (3)

Introduction to fiction, poetry, and drama. Required for majors and minors in English. Offered every fall and spring.

ENGL 1500. Perspectives in Literature (3)

Readings in world literary masterpieces, with emphasis upon their contemporary relevance. For the nonmajor. Offered every fall and spring.

ENGL 1501. Perspectives in American Literature (3)

Readings in selected major works in American literature which provide perspectives on dominant themes and ideas in American life. For the nonmajor.

ENGL 2010. Critical Approaches to Literature (3)

Basic theories, approaches, techniques, and terminology in the study of literature, with special emphasis on poetry. Prerequisite: ENGL 1000, 1010, or equivalent. Offered every fall and spring.

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English & Foreign Languages

ENGL 2025. Contemporary Film (3)

Studies in recent feature-length narrative films.

ENGL 2050. Technical and Report Writing (3)

Principles of technical writing and composition of technical reports, with directed writing in various field. Recommended for students in social and natural sciences and business administration. Prerequisite: ENGL 1000. Offered every fall and spring.

ENGL 2150. Newswriting (2)

A basic newswriting course for beginning journalists: reporting techniques, interviewing, introduction to communication theory, interpretive and investigative writing.

ENGL 2970. Selected Topics offered during Winter Term (4)

Upper Division

ENGL 3001. Advanced Composition (3)

Advanced expository composition, with intensive exercise in writing. Includes consideration of the development of the English language, traditional grammar, and the differences between standard written English and informal English. Students will analyze their own writing and that of other students or writers. Offered every fall and spring.

ENGL 3011. Introductory Creative Writing (3)

Methods and techniques of various types of writing. Typical studies include short fiction writing, poetry writing, and/or drama writing. May be repeated for credit. (Formerly 3030)

ENGL 3021. Journalism Laboratory (3)

A practical course in newspaper writing with the emphasis on timely coverage of campus and area events and personalities: feature writing, interviews, human interest, student government reporting, photo judgment, news judgment, and some newspaper layout and headline writing. Prerequisites: ENGL 2150 or equivalent, and typing. May be repeated no more than three times for credit. Offered every fall and spring.

ENGL 3022. Editing and Ethics (3)

A laboratory-seminar in editing and news ethics: the canons of journalism, responsibility in the newsroom, how the newsroom works, duties of the editor and copyreader, newspaper layout and design, and slanted versus objective reporting.
ENGL 3023. Press Law (3)

A case study course in the law and mass communication, exploring the first amendment right of freedom of the press, limitations on that right, censorship, the right to privacy, the people's right-to-know, regulation of broadcasting, and legal constraints on media advertising.

ENGL 3024. History of Journalism (3)

A historical survey of the evolution of American journalism from the colonial period to the present.

ENGL 3025. Photo-Journalism (2)

Theory and practice of photo-journalism. Value of the photograph in mass media and its communication of news in newspapers and magazines; photographic news assignments and development of news photo essays. Prerequisite: Consent of instructor.

ENGL 3026. Journalism Internship (3)

Field experience in journalism. Apprenticeship experience with public relations offices and radio and television stations. May be repeated for credit.

ENGL 3110. Major British Authors to 1800 (3)

Beowulf and selected works of Chaucer, Spenser, Donne, Jonson, Milton, Dryden, Swift, Pope, and others. Offered every fall. (Formerly 3100)

ENGL 3111. Major British Authors after 1800 (3)

Selected works of Wordsworth, Keats, Browning, Tennyson, Dickens, Arnold, Yeats, Shaw, Joyce, Auden, and others. Offered every spring. (Formerly 3200)

ENGL 3209. Medieval Literature (3)

The literature of the Middle Ages exclusive of Chaucer. Typical studies include Piers Plowmen, Sir Gawain and the Green Knight, the Pearl, the Arthurian romances, and/or the ballad. (Formerly 3101)

ENGL 3210. English Renaissance Literature (3)

Literature of the period from about 1500 to 1605. Typical studies include drama, lyric poetry, dramatic poetry, and such authors as Sidney, Spenser, Wyatt, Surrey, and Elizabethan dramatists other than Shakespeare.
ENGL 3215. Seventeenth Century English Literature (3)

Literature of the period from about 1603 to 1660. Typical studies include works of Donne, Jonson, Marvell, Herbert, and/or others.

ENGL 3220. Eighteenth Century English Literature (3)

Literature of the period from 1660 to about 1780. Typical studies include examples of Restoration drama and works of Dryden, Pope, Swift, Jonson, Boswell, and/or others.

ENGL 3225. English Romantic Literature (3)

Literature of the late eighteenth and early nineteenth centuries. Typical studies include works of Blake, Wordsworth, Coleridge, Byron, Keats, Shelley, and/or others. (Formerly 3201)

ENGL 3230. English Victorian Literature (3)

Literature of the period from 1832 to 1900. Typical studies include Tennyson, Browning, Arnold, Carlyle, and/or others. (Formerly 3204)

ENGL 3235. Modern British Literature (3)

Literature of the late nineteenth and twentieth century. Typical studies include works by Hardy, Yeats, Joyce, Lawrence, Forster, Eliot, and/or others. (Formerly 3202)

ENGL 3400. Major American Authors (3)

Selected works of Emerson, Hawthorne, Thoreau, Melville, Whitman, Twain, James, and others. Offered every spring.

ENGL 3500. Studies in Film (3)

An examination of the film as a verbal and visual medium for story-telling and as a reflection of history and culture. Typical studies include the American sound film, science fiction films, horror films, silent films, American comedy, foreign films, and/or other types of films. May be repeated for credit.

ENGL 3800. Introduction to Linguistics (3)

An introduction to the scientific study of language. Topics covered include dialect study, language acquisition, comparative linguistics, and modern theories of language. (Same as ANTH 3800)

ENGL 3801. Applied Linguistics/Bilingualism (3)

An introduction to linguistics and its application to the
teaching of English and foreign languages, particularly with respect to teaching English as a second language.

ENGL 3805. Introduction to Historical Linguistics (3)

An introduction to the study of how languages change. Primary emphasis will be on the history of the English language from prehistoric times to the present, but other languages will be treated. (Formerly 3810) Prerequisite: Consent of instructor.

ENGL 3815. Introduction to Bilingualism (3)

A course for prospective bilingual teachers. Topics to be covered will include the nature of bilingualism, application of linguistic concepts to bilingualism, and factors which hinder or facilitate bilingualism. (Formerly 3830)

ENGL 3816. Language of Primary-Age Children (3)

A course that prepares students to deal more effectively with language in the primary grades. The course will include the analysis of actual speech samples of children. Special attention will be given to preparing students to perform independent analysis. Nonstandard English will also be discussed. (Formerly 3840)

ENGL 3930. World Literature in Translation (2-5)

Studies of various aspects of world literature in translation. Typical studies include modern French literature, Eastern European literature, literature of the Spanish Golden Age, Russian literature, German literature, or Japanese literature. (Same as FREN, GERM, SPAN 3930) Different topics may be taken for credit under this number.

ENGL 4010. Advanced Creative Writing (4)

Primarily a workshop for experienced writers, the course includes editorial work on the campus literary magazine, participation in a public reading, and examination of the literary market. Prerequisite: Consent of instructor.

ENGL 4105. English Novel I (3)

Authors to be studied include Defoe, Richardson, Fielding, Sterne, Smollett, Austen.

ENGL 4106. English Novel II (3)

Authors to be studied include Dickens, Thackeray, Bronte, Eliot, Hardy, Conrad.
ENGL 4107. American Novel I (3)

The American novel in the nineteenth century. Authors to be studied include Cooper, Hawthorne, Melville, Twain, Howells, James, Crane, and/or others.

ENGL 4108. American Novel II (3)

The American novel in the twentieth century. Authors to be studied include Dreiser, Hemingway, Fitzgerald, Lewis, Faulkner, Steinbeck, Salinger, and/or others.

ENGL 4115. Types of English Poetry (3)

Lyric, narrative, and/or dramatic poetry in English literature.

ENGL 4120. Types of American Poetry (3)

Lyric, narrative, and/or dramatic poetry in American literature.

ENGL 4130. Dramatic Literature I (3)

Analysis of drama as literary form: Classics of the Greek, Renaissance, and Restoration theaters.

ENGL 4135. Dramatic Literature II (3)

Analysis of drama as a literary form: Ibsen, Strindberg, Chekhov, Shaw, Brecht, Williams, and/or others.

ENGL 4300. Shakespeare (3)

Representative plays from among the comedies, tragedies, romances, and histories; may also include examples of nondramatic poetry. (Formerly 3401)

ENGL 4305. Chaucer (3)

The works of Chaucer with emphasis on the Canterbury Tales. (Formerly 3403)

ENGL 4310. Milton (3)

Representative poetry and prose of Milton, with emphasis on Paradise Lost. (Formerly 3402)

ENGL 4600. Tutorial Projects in English (3)

An inquiry into the techniques of teaching the reading and writing of the English language. Instruction in the problems involved in tutoring students in English. Prerequisite: Consent
of instructor. May be repeated once for credit. Offered every fall and spring.

ENGL 4602. Children's Literature (3)

Introduction to children's literature: fiction, poetry, drama, fantasy, fairy tales, folklore, and ethnic materials. Analysis and investigation of the techniques of teaching literature to children.

ENGL 4603. Adolescent Literature (3)

Study of representative works read by adolescents, including fiction, poetry, and drama.

ENGL 4610. Curriculum and Instruction: English (3)

Contemporary trends and problems in English education with emphasis on language arts curriculum development, selection and organization of materials, and procedures for the secondary and junior high school. Field observations and contact with local teachers. Prerequisite: Consent of instructor.

ENGL 4700. Interdepartmental Study (2-5)

Various interdepartmental topics. Course content may vary from term to term. Typical courses include: Literature of Urban Life; Medieval English Drama; Literary Backgrounds and Contemporary Performance; Myth in Art and Literature; Backgrounds of American Literature; The Political Novel. Different topics may be taken for credit under this number. Prerequisite: Consent of instructor.

ENGL 4850. English Grammar (3)

An intensive and extensive review of the principles of English grammar, designed particularly for teachers and prospective teachers of English; the changing notions of grammar: traditional (prescriptive), structural (descriptive), transformational (generative). Prerequisite: ENGL 3800 or consent of instructor.

ENGL 4860. Development of Modern English (3)

The development of the English language from its origins to its present form.

ENGL 4930. Special Studies in American Literature (2-4)

Special studies in some area of American literature. Course content may vary from term to term. Typical courses include American war literature, the American dream and American
literature, the Utopian dream in American literature, or California writers and the California scene. Different titles may be taken for credit under this number.

ENGL 4950. Special Studies in English Literature (1-5)

Special studies in some area of English literature. Course content may vary from term to term. Typical courses include women in nineteenth and twentieth century literature, realism in English literature, minor writers, London in English literature. Different titles may be taken for credit under this number.

ENGL 4960. Seminar: Problems in Mass Media (3)

An inquiry into some important aspect of mass media as a force in contemporary society. Typical subjects include "The Press and the Law," "The Media and Politics," and "The Media and the presentation of Violence." Topics will vary. May be repeated for credit. Prerequisite: Consent of instructor.

ENGL 4970. Selected Topics offered during Winter Term (4)

ENGL 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor. Offered every fall, winter, and spring.

Graduate

ENGL 5000. Graduate Studies in English: Problems and Methodology (5)

Introduction to the graduate study of English with primary focus upon methods of research, bibliography, and the various approaches to the disciplines of literature and criticism.

ENGL 5100. Seminar: Medieval Literature (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5200. Seminar: The Renaissance (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.
ENGL 5300. Seminar: The Enlightenment and 18th Century (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5400. Seminar: The Nineteenth Century (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5500. Seminar: The Twentieth Century (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5600. Seminar: American Literature (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5800. Tutorial Projects in English (1-5)

Inquiry into the processes and methods of basic skills instruction; instruction in the problems and methods of teaching and tutoring students in English composition; to include supervised observation-participation and intern teaching in local settings. Includes a weekly on-campus meetings with the student's teacher. Prerequisites: Graduate standing; consent of instructor.

ENGL 5950. Selected Topics in English (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in English. Topics will vary. Different topics may be taken for credit. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5970. Selected Topics offered during Winter Term (4)

ENGL 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5990. Thesis (3-5)
French

REQUIREMENTS FOR THE BACHELOR OF ARTS, FRENCH

French majors are to:

1. Complete the requirements for Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units; of these no more than 8 units of CR graded course work may apply toward the major.

Completion of an academic minor is not required but is strongly recommended for single subject credential candidates.

DEGREE MAJOR IN FRENCH

Prerequisites to the Major:

*FREN 1010, 1020. Elementary French I, II, 8 units

The Major

Required courses in the major field:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 3010, 3020</td>
<td>6</td>
</tr>
<tr>
<td>FREN 3500</td>
<td>3</td>
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<tr>
<td>FREN 3510</td>
<td>1</td>
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</table>

Elective courses in the major field:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two courses from the sequence 3300, 3310, 3320, 3330</td>
<td>6</td>
</tr>
<tr>
<td>Upper division elective courses to total not less than 8 units</td>
<td>8</td>
</tr>
</tbody>
</table>

Total 24

DEGREE MINOR IN FRENCH

Twenty-six units, to include at least 12 units in upper division, with a minimum of 14 college units.

* A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement. Two years of college-level French or the equivalent is required for admission to upper division courses.
English and Foreign Languages

Lower Division

*FREN 1010, 1020. Elementary French I, II, 8 units

Upper Division

FREN 3010, 3020. Advanced French Grammar and Composition I, II, 6 units

One course from the sequence 3300, 3310, 3320, 3330, 3 units
Upper division electives, 3 units

TEACHING CREDENTIALS

An approved single-subject waiver in Foreign Languages is available for students who wish to declare French as their subject matter teaching area. Students must plan their academic programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.

LIBERAL STUDIES CONCENTRATION IN FRENCH

<table>
<thead>
<tr>
<th>Course/Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 3010, 3020. Advanced French Grammar and Composition I, II</td>
<td>6</td>
</tr>
<tr>
<td>Two courses selected from the following</td>
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</tr>
<tr>
<td>FREN 3300. Aspects of French Non-Fiction, 3 units</td>
<td></td>
</tr>
<tr>
<td>FREN 3310. Aspects of French Drama, 3 units</td>
<td></td>
</tr>
<tr>
<td>FREN 3320. Aspects of French Poetry, 3 units</td>
<td></td>
</tr>
<tr>
<td>FREN 3330. Aspects of the French Novel, 3 units</td>
<td></td>
</tr>
<tr>
<td>Upper division electives in French by advisement</td>
<td>3-8</td>
</tr>
<tr>
<td>Total</td>
<td>20-21</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

Lower Division

FREN 1010. Elementary French I (4)

First-year French: audio-lingual approach; understanding, speaking, reading, and writing.

*A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement. Two years of college-level French or the equivalent is required for admission to upper division courses.
English and Foreign Languages

FREN 1020. Elementary French II (4)

Continuation of FREN 1010. Prerequisite: FREN 1010 or equivalent, or consent of instructor.

FREN 2010. Intermediate French I (3)

Second-year French, emphasizing the audio-lingual approach. Extensive review of the morphology and syntax of the language. Prerequisite: FREN 1020 or equivalent, or consent of instructor.

FREN 2020. Intermediate French II (3)

Continuation of FREN 2010. Prerequisite: FREN 2010 or equivalent, or consent of instructor.

FREN 2950. Selected Topics in French (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in French. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

FREN 2970. Selected Topics offered during Winter Term (4)

Upper Division

FREN 3010. Advanced French Grammar and Composition I (3)

Oral and written practice in French, syntactic analysis, written and oral composition, and supplementary reading. Taught in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3020. Advanced French Grammar and Composition II (3)

Continuation of FREN 3010. Prerequisite: FREN 3010 or equivalent, or consent of instructor.

FREN 3300. Aspects of French Non-Fiction (3)

A course dealing with the development and evolution of French non-fiction, particularly essays, from Montaigne to the present. Conducted in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3310. Aspects of French Drama (3)

A course dealing with selected French dramatic works, from the Middle Ages to the present. Conducted in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.
FREN 3320. Aspects of French Poetry (3)

A course dealing with the development and evolution of French poetic forms, from the Middle Ages to the present. Conducted in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3330. Aspects of the French Novel (3)

A course dealing with the development and evolution of the French novel, from its beginnings to the present. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3340. Aspects du Conte Français (3)

A detailed study of the short story genre in French literature, from the earliest examples (the fabliaux to the present (Vercors, Camus, Sartre). The bulk of the course will deal with the great 19th-century conteurs, Flaubert, Daudet, and Maupassant. Class conducted in French. Prerequisite: FREN 2020 or consent of instructor.

FREN 3500. French Phonetics (3)

A detailed study of modern French phonology and its representation, including work on dialectal differences as well as analysis of contrasts with English. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3510. French Conversation (1)

A course designed for advanced students. Class work will include discussions of current (cultural) events and/or other topics of common interest. Course may be repeated once for credit. (Laboratory, 2 hours) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3930. French Literature in Translation (2-5)

Studies in various aspects of French literature in English translation. Course content may vary from term to term. Typical courses include: Arthurian Romances; French Satirical literature; French Existential Literature. Different titles may be taken for credit under this course number. (Same as ENGL 3930)

FREN 4070. French Classicism (3)

A study of the major literary and intellectual developments in French during the seventeenth century; an analysis of the development of major genres. Prerequisite: FREN 2020 or equivalent, or consent of instructor.
FREN 4080. French Romanticism (3)

Major works of the poetry, drama, and novels of the French Romanticists, beginning with Mme. de Staël and going through Edmond Rostand. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 4090. Modern French Poetry (3)

French poetry from the Parnassians to the present. Study of trends of the poetry from the mid-19th century to the present. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 4100. Modern French Fiction (3)

French novels from the end of the Romantic period to the present, stressing Flaubert, Zola, Proust, Gide, Mauriac, Saint-Exupéry, Camus, Sartre, and the new novelists. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 4810. Linguistics and Language Instruction (3)

An overview of the field of linguistics and its applicability for teaching foreign languages in the secondary schools. Prerequisite: FREN 3020 or consent of instructor.

FREN 4950. Selected Topics in French (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in French. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

FREN 4970. Selected Topics offered during Winter Term (4)

FREN 4980. Individual Study (1-4)

For advanced undergraduate students prepared for independent work, and in need of advanced and specialized study in French. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

FREN 5980. Individual Study (1-4)

For postbaccalaureate students prepared for independent work, and in need of advanced and specialized study in French. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
English & Foreign Languages

German
DEGREE MINOR IN GERMAN

Twenty-six units, to include at least 12 units in upper division, with a minimum of 14 college units.

Lower Division

*GERM 1010, 1020. Elementary German I, II, 8 units
*GERM 2010, 2020. Intermediate German I, II, 6 units

Upper Division

GERM 3010, 3020. Advanced German Grammar & Composition I, II, 6 units

Additional courses in upper division German, as approved by advisement, to total not less than 6 units.

TEACHING CREDENTIALS

An approved single subject waiver in Foreign Languages is available for students who wish to declare German as their subject matter teaching area. Students must plan their academic programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.

LIBERAL STUDIES CONCENTRATION IN GERMAN

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 2010, 2020. Intermediate German I, II or equivalent</td>
<td>0-6</td>
</tr>
<tr>
<td>GERM 3010. Advanced German Grammar &amp; Composition I</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3110. The German Psyche</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3201. Classics of German Literature</td>
<td>3</td>
</tr>
<tr>
<td>GERM 3210. Modern German Fiction</td>
<td>3</td>
</tr>
<tr>
<td>Upper division electives in German, by advisement</td>
<td>3-8</td>
</tr>
<tr>
<td>Total</td>
<td>20-21</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

Lower Division

GERM 1010. Elementary German I (4)

First-year German, audio-lingual approach; understanding, speaking, reading, and writing.

* A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement. Two years of college-level German or the equivalent is required for admission to upper division courses.
GERM 1020. Elementary German II (4)

Continuation of GERM 1010. Prerequisite: GERM 1010 or equivalent, or consent of instructor.

GERM 2010. Intermediate German I (3)

Second-year German: intensified review of grammar. Special emphasis will be given to the development of increased skills in the reading, writing, speaking, and understanding of German. Prerequisite: One year of college-level German or equivalent, or consent of instructor.

GERM 2020. Intermediate German II (3)

Continuation of GERM 2010. Prerequisite: GERM 2010 or equivalent, or consent of instructor.

GERM 2950. Selected Topics in German (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in German. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

GERM 2970. Selected Topics offered during Winter Term (4)

Upper Division

GERM 3010. Advanced German Grammar and Composition I (3)

Oral and written practice in German, syntactical analysis, written and oral composition, and supplementary reading. Prerequisite: The equivalent of two years of college-level German, or consent of instructor.

GERM 3020. Advanced German Grammar and Composition II (3)

Continuation of GERM 3010. Prerequisite: GERM 3010 or equivalent or consent of instructor.

GERM 3110. The German Psyche (3)

An introduction to the German mind as seen through literature, politics, history, religion, music. (Formerly 3100) Prerequisite: The equivalent of two years of college-level German or consent of instructor.
GERM 3201. Classics of German Literature (3)

Major works of German literature from the beginnings to the 19th century, within the context of literary-philosophical movements. Readings include works of: Walter von der Vogelweide, Grimmelshausen, Lessing, Goethe, Schiller, Eichendorff, Kleist, Buchner. Prerequisite: Two years of college-level German or equivalent, or consent of instructor.

GERM 3210. Modern German Fiction (3)

Major works of German literature from the turn of the century to the present. Selected readings will include works of Brecht, Kafka, Mann, Hesse, Grass, Boell. Prerequisite: Two years of college-level German or equivalent, or consent of instructor.

GERM 3220. Special Study: Genre (3)

Studies in various genres. Course content may vary from term to term. Typical courses include: The German Theatre; Masterpieces of German Poetry; The Novelle in German Literature. Different titles may be taken for credit under this course number. Prerequisite: Equivalent of two years of college-level German, or consent of instructor.

GERM 3500. German Phonetics (3)

A detailed study of modern German phonology and its representation, including work on dialectical differences as well as analysis of contrasts with English. Prerequisite: The equivalent of one year of college-level German, or consent of instructor.

GERM 3510. German Conversation (1)

Specifically designed to improve listening comprehension and speaking proficiency in German through free conversation, oral reports, and laboratory work. This course may be repeated twice for credit. Prerequisite: The equivalent of two years of college-level German, or consent of instructor.

GERM 3930. German Literature in Translation (2-5)

Studies in various aspects of German literature in English translation. Course content may vary from term to term. Typical courses include: The Age of Goethe; Modern German Fiction in Translation; Modern German Drama. Different titles may be taken for credit under this course number. (Same as ENGL 3930)
English and Foreign Languages

GERM 4810. Linguistics and Language Instruction (3)

An overview of the field of linguistics and its applicability for teaching foreign languages in the secondary schools. Prerequisite: GERM 3010 or consent of instructor.

GERM 4950. Selected Topics in German (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in German. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

GERM 4970. Selected Topics offered during Winter Term (4)

GERM 4980. Individual Study (1-4)

For advanced undergraduate student prepared for independent work, and in need of advanced and specialized study in German. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

GERM 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Spanish

Requirements for Bachelor of Arts, Spanish

Spanish majors are to:

1. Complete the requirements for Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units; of these, no more than 8 units of CR-graded course work may apply toward the major.

Completion of an academic minor is not required but is strongly recommended for single subject credential candidates.
# English and Foreign Languages

## DEGREE MAJOR IN SPANISH

Prerequisites to the Major:

* SPAN 1010, 1020. Elementary Spanish I, II, 8 units

<table>
<thead>
<tr>
<th>The Major</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 3010, 3020. Advanced Spanish I, II</td>
<td>8 units</td>
</tr>
<tr>
<td>3 courses from the following: 3200, 3210, 3300, 3310</td>
<td>9 units</td>
</tr>
<tr>
<td>Additional courses in upper division Spanish, as approved by the major adviser, to total not less than 9 units</td>
<td>9 units</td>
</tr>
<tr>
<td>Total</td>
<td>24 units</td>
</tr>
</tbody>
</table>

## DEGREE MINOR IN SPANISH

Twenty-eight units, to include at least 12 units in upper division, with a minimum of 14 college units.

<table>
<thead>
<tr>
<th>Lower Division</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>*SPAN 1010, 1020. Elementary Spanish I, II</td>
<td>8 units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper Division</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 3010, 3020. Advanced Spanish I, II</td>
<td>6 units</td>
</tr>
<tr>
<td>Additional courses in upper division Spanish, as approved by the department, to total not less than 6 units</td>
<td></td>
</tr>
</tbody>
</table>

## TEACHING CREDENTIALS

An approved single subject waiver in Foreign Languages is available for students who wish to declare Spanish as their subject matter teaching area. Students must plan their academic programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.

## LIBERAL STUDIES CONCENTRATION IN SPANISH

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 2010, 2020. Intermediate Spanish I, II or equivalent</td>
</tr>
<tr>
<td>SPAN 3010, 3020. Advanced Spanish I, II</td>
</tr>
<tr>
<td>Upper division electives in Spanish by advisement</td>
</tr>
</tbody>
</table>

Total | 20 units

*A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement.

Two years of college-level Spanish or the equivalent is required for admission to upper division courses.

270
COURSE DESCRIPTIONS

Lower Division

SPAN 1010. Elementary Spanish I (4)
First-year Spanish. Audio-lingual approach; understanding, speaking, reading, and writing.

SPAN 1020. Elementary Spanish II (4)
Continuation of SPAN 1010. Prerequisite: SPAN 1010 or equivalent.

SPAN 2010. Intermediate Spanish I (3)
Second-year Spanish, with emphasis on audio-lingual work in the language laboratory. Includes review of language structure patterns and reading assignments. Prerequisite: One year college-level Spanish or equivalent.

SPAN 2020. Intermediate Spanish II (3)
Continuation of SPAN 2010. Prerequisite: SPAN 2010 or equivalent.

SPAN 2950. Selected Topics in Spanish (Topic to be specified in Class Schedule) (1-5)
Development of a selected topic in Spanish. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

SPAN 2970. Selected Topics offered during Winter Term (4)

Upper Division

SPAN 3010. Advanced Spanish I (3)
Oral and written practice of the language through class discussion of selected works, and written compositions about related topics. Required of majors and minors. Prerequisite: The equivalent of two years of college-level Spanish, or consent of instructor.

SPAN 3020. Advanced Spanish II (3)
Continuation of SPAN 3010. Required of majors and minors. Prerequisite: SPAN 3010 or equivalent, or consent of instructor.
SPAN 3200. Literature of Spain I (3)

A study of selected complete works by Spanish writers. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3210. Literature of Spain II (3)

A study of selected complete works by Spanish writers. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3300. Literature of Spanish America I (3)

From the beginnings to 1880. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3310. Literature of Spanish America II (3)

From 1880 to the present. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3520. Spanish Conversation (1)

A course designed to provide the participant the opportunity to develop a greater degree of oral spontaneity in the Spanish language. This course may be repeated for credit. Prerequisite: SPAN 2020 or equivalent or consent of instructor.

SPAN 3530. Phonology and History of the Spanish Language (3)

A study of the phonological, morphological and syntactical changes of the Spanish language from vulgar Latin to modern times. Also an analysis of modern Spanish phonetics and phonemics with emphasis on contrasts with English. (Formerly 3500, 3510) Prerequisite: SPAN 2020 or equivalent or consent of instructor.

SPAN 3600. History and Civilization of Spain (3)

A brief survey of the history of Spain, its culture and civilization. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3610. History and Civilization of Spanish America (3)

A survey course of the history and civilization of Spanish America. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3700. La literatura femenina hispánica (3)

Special study in women writers of the Hispanic World. Course content may vary from term to term: prose, poetry, theater, etc. Conducted in Spanish. Prerequisite: Two years of college-level Spanish or consent of instructor.
SPAN 3800. El cuento hispánico (3)

A course dealing with the development and evolution of short story writing in Spain or Latin America. Conducted in Spanish. Prerequisite: Two years of college Spanish or consent of instructor.

SPAN 3900. Cultura y literatura chicana (3)

A course dealing with the cultural background of the Chicano. Special emphasis will be given to works (prose, poetry, theatre) written by contemporary Chicano writers. Conducted in Spanish and English. Prerequisite: Student must be bilingual.

SPAN 3930. Spanish Literature in Translation (3)

Studies in various aspects of Spanish literature in English translation. Course content may vary from term to term. Typical courses include: Golden Age Masterpieces; Contemporary Latin American Literature; Spanish Literature, 1900-1936. Different titles may be taken for credit under this course number. (Same as ENGL 3930)

SPAN 4030. Gramática española (3)

Oral and written practice in Spanish, syntactical analysis. Prerequisite: SPAN 2020 and/or consent of instructor.

SPAN 4040. Español para el bilingue (3)

A course designed for Spanish-speaking students--intensive practice in reading and writing; extensive vocabulary building, with emphasis in helping the student to use "standard" Spanish. Can be taken in lieu of SPAN 3010, but may not be taken in addition to the latter except by special permission. Prerequisites: Fluency in spoken Spanish and consent of instructor.

SPAN 4200. El teatro en España (3)

A study of Spanish theatre from early times to the present, including the reading of selected plays. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4240. Cervantes (3)

A study of the works of Cervantes including Don Quijote. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4250. Prosa hispanoamericana: Siglos XIX-XX (3)

A study of selected 19th and 20th century Spanish American short stories, essays, and novels. Prerequisite: SPAN 3010 or consent of instructor.
English & Foreign Languages

SPAN 4510. Curriculum and Instruction: Spanish (3)

Current practices in modern foreign languages instruction, with emphasis on laboratory procedures and the audio-lingual-visual approach. Prerequisite: Admission to credential program or teaching experience, or consent of instructor. (Same as EDUC 3210)

SPAN 4600. Literatura mexicana (3)

Authors of México and their works from Cortés to the contemporary period. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4810. Linguistics and Language Instruction (3)

An overview of the field of linguistics and its applicability for teaching foreign languages in the secondary schools. Prerequisite: SPAN 3020 or consent of instructor.

SPAN 4950. Selected Topics in Spanish (Topics to be specified in Class Schedule) (1-5)

Topics vary each term; different topics may be taken for credit. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4970. Selected Topics offered during Winter Term (4)

SPAN 4980. Individual Study (1-4)

For students prepared for independent work, and in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

SPAN 5980. Individual Study (1-4)

For postbaccalaureate students needing advanced or specialized study. May be repeated for 6 units. Prerequisite: Consent of instructor.
Environmental Sciences

Walter Tordoff, Ph.D., Coordinator

A Concentration for Majors in the Natural and Physical Sciences

Within the areas of natural and physical sciences, a concentration in environmental sciences is offered which is designed to acquaint the student with environmental problems and research in the areas of biological sciences, chemistry, and physical sciences. The student will complete courses in each of these areas, participate in interdepartmental seminars, and become involved in the study of an environmentally related problem. Courses are required in each of the departments to help the student better understand the nature and diversity of the environment, as well as the broad scope of research and study necessary to deal effectively with environmental problems.

Each student must satisfy the graduation requirements of the college including the completion of a major in biological sciences, chemistry, physical science, or physics. In addition, the student must complete the requirements for the environmental sciences concentration as outlined. Students majoring in physical science may combine the environmental science concentration requirements with major requirements to complete the physical science degree as outlined in the Catalog.

PREREQUISITES TO THE ENVIRONMENTAL SCIENCE CONCENTRATION

Each student in the program is expected to complete these courses or their equivalent:

- BOTY 1050. Introduction to Botany, 4 units
- ZOOL 1050. Introduction to Zoology, 4 units
- CHEM 1100, 1110. Principles of Chemistry I, II, 10 units
- MATH 1600. Statistics, 4 units
  or MATH 3660. Probability & Statistics II, 4 units
- MATH 2000. FORTRAN Programming, 3 units
- PHYS 1100, 1110. Basic Physics I, II, 10 units
  or PHYS 2250, 2260. General Physics I, II, 8 units
  and PHYS 2350, 2360. General Physics Lab I, II, 2 units
Environmental Sciences

ENVIRONMENTAL SCIENCE CONCENTRATION

Each student will complete the following course work:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3630</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2010</td>
<td>Quantitative Analysis &amp; Basic Instrumental Techniques</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus I, 4 units</td>
<td></td>
</tr>
<tr>
<td>or MATH 1910</td>
<td>Calculus with Applications I, 3 units . 3-4</td>
<td></td>
</tr>
<tr>
<td>MATH 1420 or MATH 1920</td>
<td>is recommended.</td>
<td></td>
</tr>
<tr>
<td>NSCI 4960</td>
<td>Seminar in Environmental Science, 1 unit</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(two semesters required)</td>
<td></td>
</tr>
<tr>
<td>PHSC 3000</td>
<td>Physical Science of the Environment, 3 units</td>
<td>3</td>
</tr>
<tr>
<td>or GEOL 3000</td>
<td>Physical &amp; Environmental Geology,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>BIOL 4980, CHEM 4980, PHYS 4980, or PHSC 4980,</td>
<td>Individual Study, 4 units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This study must be on an environmentally</td>
<td></td>
</tr>
<tr>
<td></td>
<td>related problem which has been selected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in consultation with the adviser</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20-21</td>
</tr>
</tbody>
</table>

Each student should include additional environmental courses in consultation with the adviser.

COURSE DESCRIPTION

NSCI 4960. Seminar in Environmental Science (1)

Environmental topics will be presented and discussed by faculty, students, and visiting scientists. May be repeated for a maximum of 4 units. Prerequisite: Upper division standing or consent of instructor.
Ethnic Studies

Richard L. Luevano, M.A., Assistant Professor
Delo E. Washington, Ph.D., Assistant Professor

Ethnic Studies is a multidisciplinary program that coordinates a variety of courses, activities, and projects designated to enhance the understanding of the roles, functions, and life styles of American ethnic minority peoples.

A sequential offering of courses has been made possible through the presentation of courses in existing academic departments and through special interdisciplinary courses presented directly through the ethnic studies program. Special advising schedules of ethnic studies course offerings are made available to advisers and students each semester. Further information may be obtained by consulting directly with the ethnic studies faculty members. Students interested in obtaining a special ethnic studies major can do so by consulting directly with the Director of Ethnic Studies.

DEGREE MINOR IN ETHNIC STUDIES

18 units in the ethnic studies program as approved by the minor adviser, including at least 12 upper division units, distributed as follows:

1. Category I, to include two areas, 6 units
2. Category II-V, 6 units
3. Category V, 6 units

DEGREE MINOR IN CHICANO STUDIES

18 units in the ethnic studies program in Chicano Studies as approved by the minor adviser, including at least 12 upper division units, distributed as follows:

1. Category I, 3-6 units
2. Category II or III, 3 units
3. Category V, 6 units
4. Category II-V, 3-6 units

DEGREE MINOR IN BLACK STUDIES

18 units in the ethnic studies program in Black Studies as approved by the minor adviser, including at least 12 upper division units, distributed as follows:

1. Category I, 3-6 units
2. Category II or III, 3 units
3. Category V, 6 units
4. Category II-V, 3-6 units
LIBERAL STUDIES CONCENTRATION IN ETHNIC STUDIES

Lower Division, one course selected from:

Category I ........................................... 3

Upper Division, 17 units as approved by the major adviser, to include:

Course work from Categories II-IV ................. 6-11
Course work from Category V .......................... 6-11
Total .............................................. 20

The following is a list of the courses that are offered in Asian American Studies, Black Studies, Chicano Studies and Native American Studies, and may be designated according to the following categories:

Category I

An introduction to the study of the role, function, and life styles of American ethnic groups.

ETHS 2000. Contemporary Black Studies, 3 units
ETHS 2100. Contemporary Chicano Studies, 3 units
ETHS 2200. Contemporary Asian American Studies, 3 units
ETHS 2300. Contemporary Native American Studies, 3 units

Category II

A detailed study of the cultural development of ethnic groups in America.

ANTH 3070. Peoples of Africa, 3 units
ANTH 3350. The North American Indian, 3 units
ANTH 3360. The Indians of California and Western North America, 3 units
ANTH 3370. Native Peoples of Mexico, 3 units

Category III

A detailed study of the historical development of each minority group in America.

HIST 3510. Latin America in Colonial Times, 3 units
HIST 3710. Mexican American History, 3 units
HIST 3730. Afro-American History, 3 units
HIST 3860. Africa Before 1800, 3 units
HIST 3870. Africa, 1800-1945, 3 units
HIST 3880. Contemporary Africa, 1945 to the Present, 3 units
Ethnic Studies

Category IV
A study of the psychological, sociological, economic, educational, and political adjustments necessary for members of each of these groups to function in American society.

EDUC 3030. Ethnic Groups in Public Education, 2 units
EDUC 4200. Teaching the Culturally Different, 3 units
ETHS 4000. Mexican American Family, 3 units
ETHS 4010. The Black American Family, 3 units
ETHS 4100. Blacks & the American Education System, 3 units
ETHS 4110. Social & Psychological Perspectives of the Black American, 3 units
PSCI 4320. Minority Politics, 3 units
SOC1 3010. Race & Ethnic Relations, 3 units

Category V
A synthesis of knowledge gained in the preceding courses with some introduction of research methodology for the study of each ethnic group.

ETHS 4200. The Minority Experience, 3 units
ETHS 4940. Field Work in Ethnic Studies, 4 units
ETHS 4950. Selected Topics in Ethnic Studies, 1-5 units
ETHS 4960. Seminar in Ethnic Studies, 3 units
ETHS 4970. Winter Term Ethnic Studies Courses, 4 units
ETHS 4980. Individual Study, 1-4 units

COURSE DESCRIPTIONS

Lower Division

ETHS 2000. Contemporary Black Studies (3)
A survey of the Black experience, a look at the distinctive Black culture and customs, and an analysis of the various problems of economic, religious, political, psychological, and educational adjustment. Particular emphasis will be placed on problems encountered in the ghetto and White resistance to change in the urban and suburban communities.

ETHS 2100. Contemporary Chicano Studies (3)
A survey of the Chicano experience, a look at the distinctive Chicano culture and customs, and an analysis of the various problems of economic, religious, political, psychological, and educational adjustment. Particular emphasis will be placed on problems encountered in the barrio, the farm labor situation, and the educational complications of bilinguality.

ETHS 2200. Contemporary Asian American Studies (3)
A survey of the Asian American experience, a look at the various Asian American cultures and customs, and an analysis of
the various problems of economic, religious, political, psychological and educational adjustment. Particular emphasis will be placed on inter-ethnic identity, identity crises, and contacts among Asian Americans.

ETHS 2300. Contemporary Native American Studies (3)

A survey of the Native American experience, a look at the various Native American cultures and customs, and an analysis of the various problems of economic, religious, political, psychological, and educational adjustment. Particular emphasis will be placed on problems encountered on the reservations, Bureau of Indian Affairs policies, and the "new Indian."

ETHS 2950. Selected Topics in Ethnic Studies (Topics to be specified in Class Schedule) (1-5)

ETHS 2970. Selected Topics offered during Winter Term (4)

Upper Division

ETHS 4000. Mexican American Family (3)

Basic sociological structure and functions of the family as a social institution. Application of role theory to the Chicano family as a unit of interacting personalities. Courtship, marriage, and child rearing practices, etc. The relationship of the Chicano family with other institutional factors of the society. Stress is placed on the changing sex role for the Chicano family members. Prerequisite: ETHS 2100.

ETHS 4010. The Black American Family (3)

Basic sociological structure and function of the family as a social institution. Application of role theory to the Black family as a unit of interacting personalities. Courtship, marriage, and child rearing practices, etc. The relationship of the American Black family with other institutional factors of the society.

ETHS 4100. Blacks and the American Education System (3)

A review of the history of Black education in America; Supreme Court and state laws and their influence on education for Blacks; the status of educational problems for Blacks; educational problems for Blacks in public schools; special competencies needed by teachers for Black students; control of schools and how this affects education for Blacks.
**Ethnic Studies**

ETHS 4110. Social and Psychological Perspectives of the Black American (3)

An analysis of the phenomenon of domination as it affects Black people. Through a comparative approach, social and psychological dynamics of dominance, resistance and submission of Black groups, family, etc. Prerequisite: Consent of instructor.

ETHS 4200. The Minority Experience (3)

A study of the history, culture, and current problems of racial and ethnic minorities with emphasis on cultural clashes, curriculum development, and the psychology of each major group, i.e., Black, Chicano, Asian American and Native American.

ETHS 4940. Field Work in Ethnic Studies (4)

Work in ethnic relations performed in a community, an institution, or an agency setting is arranged. Efforts will be made to bridge a gap between the intellectual pursuit of knowledge and its practical application in intergroup contacts.

ETHS 4950. Selected Topics in Ethnic Studies (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of ethnic studies. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ETHS 4960. Seminar in Ethnic Studies (3)

A synthesis of existing knowledge from ethnic studies material; relating pertinent background information to special independent projects. Prerequisites: Course work in ethnic studies and consent of instructor.

ETHS 4970. Selected Topics offered during Winter Term (4)

ETHS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
Geography

Melvin H. Aamodt, Ph.D., Professor, Chair
Walter Olson, Ph.D., Professor
Ida I. Bowers, Ph.D., Associate Professor
Leon S. Pitman, Ph.D., Associate Professor

Geography is concerned with the interrelationships between the environmental characteristics of the earth and man's perception and use of them. A major goal of the department is to provide students with a meaningful knowledge of the world's peoples in their different physical settings.

The Department of Anthropology/Geography offers the degree Bachelor of Arts, Geography, as well as courses for a concentration in the liberal studies major, or as one of three fields of interest in the social sciences major. A minor in geography is also available. In addition, its courses are open to all students interested in obtaining a better understanding of the world in which they live.

REQUIREMENTS FOR THE BACHELOR OF ARTS, GEOGRAPHY

Geography majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites for the major.
3. Complete the major of not less than 27 upper division units as approved by the major adviser. Eight units of Winter Term CR-graded course work may apply toward the major.

Completion of a minor is recommended but not required.

DEGREE MAJOR IN GEOGRAPHY

Prerequisites to the Major:

1. One of the following courses:
   GEOG 2000. Interaction: Man and the Earth, 3 units
   GEOG 2010. Introduction to the Physical Environment, 3 units

2. And any one of the following:
   GEOG 2020. Introduction to Cultural Geography, 3 units
   GEOG 2400. World Regional Geography I, 3 units
   GEOG 2410. World Regional Geography II, 3 units

3. And the following course which may be taken at any time prior to graduation:
   GEOG 2900. Library Resources & Bibliographical Control for Research in Geography, 2 units
Geography

Students are expected to take additional courses in supporting fields that relate to their career interests. See your adviser for further information.

The Major

A minimum of 27 upper division semester units in geography selected as specified in the following:

A. Any combination of 8 or more units from the following two categories of Geography, but including at least one course from Group 1 and one from Group 2:

1. Topical Human Geography
   - GEOG 3020. Human Ecology, 3 units
   - GEOG 3070. Agricultural Geography, 3 units
   - GEOG 3300. Economic Geography, 3 units
   - GEOG 4300. Geography of Resource Planning, 3 units
   - GEOG 4350. Urban Geography, 3 units

2. Topical Physical Geography
   - GEOG 3100. Climatology, 3 units
   - GEOG 3120. Geomorphology, 3 units
   - GEOG 4140. Physiographic Regions of the United States, 3 units

B. Any combination of 6 or more units from the following:

Regional Geography
   - GEOG 3510. Geography of North America, 4 units
   - GEOG 3530. Geography of Mexico & Central America, 3 units
   - GEOG 3550. Geography of Europe, 3 units
   - GEOG 3570. Geography of the Soviet Union and its Satellites, 3 units
   - GEOG 3590. Geography of Asia, 4 units
   - GEOG 3650. Selected Topics in Regional Geography, 1-3 units
   - GEOG 4200. Geography of Developing Areas, 3 units
   - GEOG 4510. Geography of California, 3 units
   - GEOG 4610. Historical Geography of the United States, 3 units
   - GEOG 4650. Seminar in Regional Geography, 1-3 units

C. Six units from the following, of which one course must be selected from Group 1 and one course from Group 2. Students preparing for a career in teaching may take GEOG 4840 in lieu of courses in Group 1.

Methodology in Geography

1. Applied Methods
   - GEOG 3700. Cartographic Presentation, 3 units
   - GEOG 3710. Remote Sensing of the Environment, 2 units
2. Research and Writing

GEOG 4710. Field Studies, 3 units
GEOG 4960. Senior Seminar, 3 units
GEOG 4990. Senior Thesis, 3 units

3. Other Methodology

GEOG 4840. Geography & Earth Sciences for Teachers, 3 units

D. Upper division electives in geography to make a total of at least 27 units, including those upper division units listed above.

ELECTIVE CONCENTRATIONS IN THE MAJOR

If a student so desires, he or she may include a concentration in one of three areas as part of the major. Concentrations are offered in applied geography, human geography, and physical geography. Requirements for each are listed below.

CONCENTRATION IN APPLIED GEOGRAPHY

This concentration is designed to provide a core of geography courses which have a practical concern with current environmental, urban and regional problems or which provide tools for the study of such problems. The concentration is especially useful to students who plan on careers in planning, public administration, resource management, etc.

Complete the requirements for the major so as to include the following:

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3020. Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3700. Cartographic Presentation</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4300. Geography of Resource Planning</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4350. Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Elective Courses (A minimum of two courses from the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3300. Economic Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3710. Remote Sensing of the Environment</td>
<td>2</td>
</tr>
<tr>
<td>GEOG 4200. Geography of Developing Areas</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4710. Field Studies</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td><strong>17-18</strong></td>
</tr>
</tbody>
</table>

Appropriate Winter Term or special seminar courses may be substituted in the elective category upon prior approval by adviser. Qualified students are also encouraged to complete a period of internship with a public or private agency. GEOG 4940, Internship in Geography, is available only to students who have been admitted to the Internship Program of the Anthropology/Geography Department. Contact the secretary of the department for further details.
### Geography

**CONCENTRATION IN HUMAN GEOGRAPHY**

Complete the requirements for the major so as to include the following:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3020. Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3300. Economic Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses:** (A minimum of 9 units from the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3070. Agricultural Geography, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 4200. Geography of Developing Areas, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 4300. Geography of Resource Planning, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 4350. Urban Geography, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 4610. Historical Geography of the United States, 3 units</td>
<td></td>
</tr>
</tbody>
</table>

**Total** ............................................. 15

Appropriate Winter Term or special seminar courses may be substituted in the elective category by prior advisement.

**CONCENTRATION IN PHYSICAL GEOGRAPHY**

Complete the requirements for the major so as to include the following:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3100. Climatology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3120. Geomorphology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3700. Cartographic Presentation, 3 units</td>
<td></td>
</tr>
<tr>
<td>OR GEOG 3710. Remote Sensing of the Environment, 2 units</td>
<td>2-3</td>
</tr>
</tbody>
</table>

**Elective Courses:** (A minimum of two courses from the following) ................................ 2-3

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 4140. Physiographic Regions of the United States, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 4300. Geography of Resource Planning, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 4710. Field Studies, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 3700. Cartographic Presentation, 3 units</td>
<td></td>
</tr>
<tr>
<td>OR GEOG 3710. Remote Sensing of the Environment, 2 units</td>
<td>2 units</td>
</tr>
<tr>
<td>(Whichever one was not used as the required course above.)</td>
<td></td>
</tr>
</tbody>
</table>

**Total** ............................................. 14-15

Appropriate Winter Term or special seminar courses may be substituted in the elective category by prior advisement.
DEGREE MINOR IN GEOGRAPHY

Sixteen semester units approved by the minor adviser are required, including at least 12 units in upper division courses. These upper division units must include a minimum of one course from each of the following three categories:

1. Topical Human Geography
2. Topical Physical Geography
3. Regional Geography

(See the listing above for courses in each of these categories.)

LIBERAL STUDIES CONCENTRATION IN GEOGRAPHY

Liberal Studies majors who wish to take their concentration in geography are to complete a minimum of 20 units, including at least 15 units of upper division courses.

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Complete one of the following lower division courses:</td>
</tr>
<tr>
<td>GEOG 2000. Interaction: Man &amp; the Earth</td>
</tr>
<tr>
<td>GEOG 2010. Introduction to the Physical Environment</td>
</tr>
<tr>
<td>GEOG 2020. Introduction to Cultural Geography</td>
</tr>
<tr>
<td>GEOG 2400. World Regional Geography I</td>
</tr>
<tr>
<td>GEOG 2410. World Regional Geography II</td>
</tr>
<tr>
<td>2. Complete one of the following courses in the methodology of geography:</td>
</tr>
<tr>
<td>GEOG 3700. Cartographic Presentation</td>
</tr>
<tr>
<td>GEOG 4710. Field Studies</td>
</tr>
<tr>
<td>GEOG 4840. Geography &amp; Earth Science for Teachers</td>
</tr>
<tr>
<td>3. Complete the following regional course:</td>
</tr>
<tr>
<td>GEOG 3510. Geography of North America</td>
</tr>
<tr>
<td>4. Additional units in geography</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Course work selection should be based on student's interest and career goals.

It is recommended that students planning on a teaching career include GEOG 4840, Geography and the Earth Sciences for Teachers, in their electives.

REQUIREMENTS FOR GEOGRAPHY AS A FIELD OF INTEREST IN THE SOCIAL SCIENCES MAJOR

Students may choose to study geography as part of a Social Sciences major. See Social Sciences, Requirements for the Bachelor of Arts.
Geo1r
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TEACHING CREDENTIALS

Majors in Geography interested in a Social Sciences major for a single subject credential should review Plan II of the Social Sciences waiver described in the Social Sciences section of the catalog. Please refer to the Education section of the catalog for a description of other requirements to be completed for the single subject credential.

COURSE DESCRIPTIONS

Lower Division

GEOG 2000. Interaction: Man and the Earth (3)

A synthesis of basic concepts in human and physical geography. Analysis and description of spatial distributions; patterns of human population and cultures; man's role in changing earth environments.

GEOG 2010. Introduction to the Physical Environment (3)

Analysis of the distribution and character of the major elements of the physical environment, including landforms, climates, soils, vegetation, significance and meaning to man; man's impact on and use of these elements.

GEOG 2020. Introduction to Cultural Geography (3)

Study of the cultural elements of geography such as language, religion, land tenure systems, migrations of people, plants, and animals, dispersals of ideas and techniques, transformations of natural to cultural landscapes; consideration of how man interacts with and modifies his environment.

GEOG 2400. World Regional Geography I (3)

A survey of the major culture regions of the Old World, including Asia, Europe, and Africa, with an emphasis on environment and contemporary economic and cultural conditions. Key topics to be considered include location, population, political status, the natural environment, type of economy, potentialities, and current problems.

GEOG 2410. World Regional Geography II (3)

A survey of the major culture regions of the New World including North America, Latin America, and the Pacific, with emphasis on environment and contemporary economic and cultural conditions. Key topics to be considered include location, population, political status, the natural environment, type of economy, potentialities, and current problems.

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GEOG 2900. Library Resources and Bibliographical Control for Research in Geography (2)

Survey of abstracts, bibliographies, biographical directories, book review indexes, dictionaries, documents, encyclopedias, and indexes for research; and the application of footnote and bibliographical methods for geography majors. Prerequisite: None. (Same as HIST 2900 and PSCI 2900)

GEOG 2950. Selected Topics in Geography (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of geography. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

GEOG 2970. Selected Topics offered during Winter Term (4)

Upper Division

GEOG 3020. Human Ecology (3)

An analysis of the relationships between the natural environment and man's cultural achievements, with special problems relating to both primitive and modern man. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3070. Agricultural Geography (3)

An examination of agricultural systems in the world today and the environmental factors, both physical and cultural, which interact to produce them. Prerequisite: GEOG 2010 or equivalent.

GEOG 3100. Climatology (3)

The elements and controls of weather and climate; analysis of climatic regions of the world. Prerequisite: GEOG 2010 or consent of instructor.

GEOG 3120. Geomorphology (3)

Study and interpretation of the earth's landscapes; includes consideration of the processes acting on landforms under diverse climatic conditions. Prerequisite: An introductory course in physical geography or geology or equivalent.

GEOG 3300. Economic Geography (3)

Study of world economic activity from a geographic point of view; systematic analysis of agricultural, mining, and manufacturing patterns in the various regions of the world in relation to their natural and cultural settings. Considers locational determinants of human economic activities. Prerequisite: Any 2000-level geography course or consent of instructor.
GEOG 3510. Geography of North America (4)

A topical and regional survey and analysis of physical and cultural factors responsible for present patterns in land use and settlement in the United States and Canada; considers changes in regional patterns, including agriculture, industry, transportation, urbanization. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3530. Geography of Mexico & Central America (3)

A survey of geographic factors, both physical and cultural, which are basic to an understanding of Middle America; consideration of both historical patterns and contemporary conditions. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3550. Geography of Europe (3)

The regional geography of Europe, exclusive of the Soviet Union, with emphasis on the historical development of present-day patterns. Prerequisite: Any 2000-level geography course or consent of instructor. (Offered alternate years)

GEOG 3570. Geography of the Soviet Union & Its Satellites (3)

A survey of the physical, cultural, and economic landscapes of the Soviet Union and its satellites. Covers the physical features, resources, agriculture, industry, people, potential, and problems of this vast area. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3590. Geography of Asia (4)

A comprehensive survey of the physical, cultural, and economic geography of Asia excluding Asiatic Russia. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3650. Selected Topics in Regional Geography (1-3)

Analysis of a selected region of the world; topic or emphasis varies each semester; course may be repeated. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3700. Cartographic Presentation (3)

Introduction to thematic cartography; fundamentals of map reading and cartographic portrayal including map design, compilation, drafting, and reproduction. (Lecture, 2 hours; laboratory, 2 hours) Prerequisite: Six units of geography or consent of instructor.
GEOG 3710. Remote Sensing of the Environment (2)

A survey of the essentials of aerial photographic interpretation; the uses of aerial photography and other remote sensing imagery as tools in the comprehension of spatial phenomena. Prerequisite: Six units of geography or consent of instructor. (Offered alternate years)

GEOG 3940. A Self-Guided Field Trip of the Southern Mother Lode (1)

Historical geography of the Southern Mother Lode: self-guided field trip. Involves following a prepared itinerary and playing recorded tapes at designated sites. Takes about 2 1/2 days. Student arranges own departure and return dates. Must provide own transportation.

GEOG 4000. Current Trends in Geography (1-2)

A symposium on geography featuring speakers on their special areas of research, to include current theories and research approaches in geography. Topics differ each term. May be repeated for no more than 4 units of credit towards the major. Prerequisite: One lower division geography class or consent of instructor.

GEOG 4140. Physiographic Regions of the United States (3)

A detailed examination of the physiographic provinces of the U.S. with respect to (1) their structure, (2) the role of climate and vegetation in altering the landform surface, and (3) the resultant regional patterns. Prerequisite: GEOG 3120 or consent of instructor. (Offered alternate years)

GEOG 4200. Geography of Developing Areas (3)

Analysis of man-land relationships and physical and cultural distributions pertinent to development. Consideration of the role of geography in solution of development problems. Prerequisite: Six units in geography. (Offered alternate years)

GEOG 4300. Geography of Resource Planning (3)

A survey of the geography of resource management and regional planning; the development of planning regions; population elements in relation to management and planning; techniques of data collection for resource analysis; case studies from developed and underdeveloped countries. Prerequisite: GEOG 3020 or consent of instructor.

GEOG 4350. Urban Geography (3)

Study of the spatial aspects of the city. Emphasis on the relationship of cities to each other and to the countryside, as well as on the internal structure and spatial dynamics of urban centers. Special consideration given to problems of the urban
environment including urban sprawl, water and recreational needs, and controls on land use. Field trips may be required. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 4510. Geography of California (3)

An interpretive description of the natural environment of the State with an analysis of past and present settlement patterns and current utilization of natural resources. Prerequisite: Any 2000-level course in geography or consent of instructor.

GEOG 4610. Historical Geography of the United States (3)

A study of the evolution of cultural landscapes in the United States. Emphasis on initial and sequential settlement patterns, routes of diffusion and migration, and use of resources in light of cultural traditions. Comparative analysis of regional differences in material folk culture. Prerequisites: Junior standing and consent of instructor. (Offered alternate years)

GEOG 4650. Seminar in Regional Geography (1-3)

Topic or emphasis varies each semester; course may be repeated. Prerequisite: Six units of geography or consent of instructor.

GEOG 4710. Field Studies (3)

Methods of field observation; techniques of data collection and analysis; investigations of rural and urban land use in the San Joaquin Valley. Prerequisite: Six units of geography.

GEOG 4720. Local Field Excursions (1)

A one-unit course designed to provide students with an opportunity to participate in local directed field experiences. Involves travel to and study of areas of special geographic significance in the local area. Prerequisite: Consent of instructor.

GEOG 4800. Survey of Geographic Thought & Literature (3)

A proseminar designed to give majors and minors an awareness of the heritage of academic geography to acquaint them with the breadth of its literature, and to refine their skills in geographical research and writing. Prerequisite: Six upper division units in geography (may be concurrent). (Offered alternate years)

GEOG 4840. Geography & the Earth Sciences for Teachers (3)

For in-service teachers and teacher trainees who are or will be teaching geographic and earth science concepts at the elementary, high school, or college level; a survey of the concepts, tools, and methods of modern geography and related earth science. Prerequisite: Six units of geography.
*GEOG 4940. Internship in Geography (1-6)

This course is designed for students who are serving as Interns in public or private agencies. Students serve internship as arranged between the agency and the department. Prerequisites: Nine upper division units in geography and consent of instructor.

GEOG 4950. Selected Topics in Geography (Topics to be specified in Class Schedule) (1-5)

Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

GEOG 4960. Senior Seminar (3)

Problems on a particular aspect of the field of geography. Topic changes each year offered. Each student will be expected to report on an individual project. Different topics may be taken for a maximum of 6 units. Prerequisite: Consent of instructor.

GEOG 4970. Selected Topics offered during Winter Term (4)

GEOG 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

GEOG 4990. Senior Thesis (3)

Senior thesis (A research topic to be agreed upon by the student and major professor). Geographic research and writing incorporating primary sources of data and geographic methods. Prerequisites: Senior standing, advanced course work in geography, and consent of instructor.

GEOG 5900. Directed Field Research (1-5)

Field research conducted in a subdiscipline of geography under the direction of a specific faculty member. May be repeated for a total of 6 units. Prerequisite: Consent of instructor. Available only for postbaccalaureate credit.

*GEOG 4940. Internship in Geography, is available only to students who have been admitted to the Internship Program of the Anthropology/Geography Department. Contact the secretary of the department for further details.
GEOG 5950. Selected Topics in Geography (1-5)

Innovative course of study in seminar format. Topics vary. Different topics may be taken for credit. Prerequisite: Consent of instructor. Available only for postbaccalaureate credit.

GEOG 5980. Individual Study (1-4)

Individual study for qualified postbaccalaureate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

GEOG 5990. Thesis (3-6)

Thesis research. May be repeated for a total of 6 units. Prerequisite: Consent of graduate adviser.
Health Sciences

HEALTH SCIENCES ADVISORY COMMITTEE

James C. Hanson, Ph.D., Chair
Professor of Biological Sciences

John Almy, Ph.D.
Associate Professor of Chemistry

Tai-Low Chow, Ph.D., Professor of Physics

Students enrolled at California State College, Stanislaus may prepare themselves for admission to professional schools in medicine, veterinary medicine, dentistry, pharmacy, optometry, and other health professions such as physical therapy. With the appropriate selection of courses they may also qualify to apply for training in a medical laboratory and become certified medical laboratory technicians.

To aid students to organize a program of studies qualifying them for admission to these professional schools, a Health Sciences Advisory Committee has been established. Students should register with the committee as soon as possible by contacting the Chair of the Health Sciences Advisory Committee. A committee member will prepare a suggested basic course program to supplement the curriculum outlined by the major adviser.

The Health Sciences Advisory Committee will compile data on each student and prepare a letter of evaluation to be sent at the student's request in support of applications to professional schools. It is important that the Health Sciences Advisory Committee be contacted as soon as possible (preferably before interview with the major adviser) so that the student can be properly advised. Registration with the Health Sciences Advisory Committee does not commit the student to any particular program or career.

Students especially interested in the areas of medicine, pharmacy, optometry, dentistry, and veterinary medicine are advised to complete, as a minimum, one-year sequences in English Composition (ENGL 1000, 3000), Biological Sciences (ZOOL 1050 and BOTY 1050), Chemistry (CHEM 1100, 1110), and Physics (PHYS 1100, 1110), during their freshman and sophomore years. Mathematics to the level of precalculus (MATH 1050 or 1100) should be attained by this time. Normally dental and medical school admission tests are taken in the spring of the student's junior year with the following additional preparation completed or in progress: CHEM 3010, 3330; and either ZOOL 3130, 3150, or BIOL 3310. MATH 1410 or 1910 is encouraged as preparation for these examinations also.

Additional recommendations will be provided through advisement from this committee and the major adviser.

The College also offers preprofessional course work for areas such as laboratory technology, cytotechnology, nursing, and other paramedical and health related fields.

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History

Ronald J. VanderMolen, Ph.D., Professor, Chair
John E. Caswell, Ph.D., Professor
Britten Dean, Ph.D., Professor
Curtis R. Grant, Ph.D., Professor
Franklin B. Holder, Ph.D., Professor
John P. Rasmussen, Ph.D., Professor
J. W. Smurr, Ph.D., Professor
David Bentheim Stenzel, Ph.D., Professor
Austin Metumara Ahanotu, Ph.D., Associate Professor
Samuel A. Oppenheim, Ph.D., Associate Professor

History provides the general student with a background for studying the humanities or social sciences and understanding the contemporary world. Preparation in history is especially useful for careers which require careful judgment on the basis of limited evidence, such as the United States Foreign Service, journalism, and law, as well as teaching and a variety of civil service functions.

The Department of History offers the degrees Bachelor of Arts, History; Master of Arts, History; Master of Arts in History, with a concentration in International Relations; and Master of Arts in History, with a concentration for secondary school teachers. The College also offers the degree Bachelor of Arts, Liberal Studies, with a concentration in History for those seeking a Multiple Subject Credential.

REQUIREMENTS FOR BACHELOR OF ARTS, HISTORY

History majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of 30 upper division units.
   No CR units are counted, except for 8 taken in Winter Term.
   Completion of a minor is not required.

Reading knowledge of a foreign language is desirable for the Bachelor's degree, is required in the Honors Program, and is required for some in the Graduate History programs here and in most other schools.

Prerequisites to the major:

A one-year sequence in American, European, or non-Western history, 6 units

HIST 2900. Library Resources and Bibliographical Control for Historical Research, 2 units
### History

#### The Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. HIST 3000</td>
<td>Introductory Seminar in History</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>To be taken during the student's first semester as an upper division major</td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td>One course in upper division European history from the following list</td>
<td>3-4</td>
</tr>
<tr>
<td>*HIST 3120</td>
<td>Ancient Mediterranean World II, 4 units</td>
<td></td>
</tr>
<tr>
<td>*HIST 3140</td>
<td>Medieval Europe I, 3 units</td>
<td></td>
</tr>
<tr>
<td>*HIST 3150</td>
<td>Medieval Europe II, 3 units</td>
<td></td>
</tr>
<tr>
<td>*HIST 3210</td>
<td>Renaissance &amp; Reformation, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3220</td>
<td>Absolutism and Revolution, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3230</td>
<td>Nineteenth Century Europe, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3240</td>
<td>Twentieth Century Europe, 3 units</td>
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</tr>
<tr>
<td>C.</td>
<td>One course in upper division American history from the following list</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3610</td>
<td>Colonial America, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3620</td>
<td>Ante-Bellum America, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3630</td>
<td>America after the Civil War, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3640</td>
<td>Contemporary America, 3 units</td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>Two courses in upper division non-Western history from the following list</td>
<td>6-7</td>
</tr>
<tr>
<td>*HIST 3110</td>
<td>Ancient Mediterranean World I, 4 units</td>
<td></td>
</tr>
<tr>
<td>*HIST 3510</td>
<td>Latin America in Colonial Times, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3520</td>
<td>Latin America States since Independence, 3 units</td>
<td></td>
</tr>
<tr>
<td>*HIST 3800</td>
<td>East Asia in Traditional Times, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3810</td>
<td>East Asia in the Modern World, 3 units</td>
<td></td>
</tr>
<tr>
<td>*HIST 3860</td>
<td>Africa before 1800, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3870</td>
<td>Africa, 1800-1945, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3880</td>
<td>Contemporary Africa, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 4040</td>
<td>Rise and Fall of European Colonial Systems, 3 units</td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td><em>At least two courses from B, C, &amp; D, above, must be in a pre-modern era. Courses fulfilling this requirement are starred (</em>). Also fulfilling this requirement is HIST 4350, England to 1603, 3 units.</td>
<td></td>
</tr>
<tr>
<td>F.</td>
<td>Two sections of:</td>
<td></td>
</tr>
<tr>
<td>HIST 4960</td>
<td>Directed Reading Seminar, 3 units</td>
<td>6</td>
</tr>
<tr>
<td>G.</td>
<td>HIST 4990. Senior Thesis, 4 units</td>
<td>4</td>
</tr>
<tr>
<td>H.</td>
<td>Unstructured electives in History</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS IN HISTORY MAJOR** 30
History

DEGREE CONCENTRATION AND MINOR IN HISTORY OF RELIGIONS

The Bachelor of Arts degree in History with a concentration in History of Religions is designed for those who have an interest in the academic study of religions and for those who want to prepare to teach about religions in the schools. The transcripts of history majors completing the program will note the concentration in History of Religions, while those who have other majors will be credited with a minor in History of Religions. Courses taken in the program are divided among the following areas: history of predominantly religious cultures (when students choose to apply these courses to the minor or concentration, their outside reading will be done in religion); specialized courses in the history of world religions; and courses which analyze religion. Further, the religions of at least two different societies are to be studied. Complete requirements are listed below.

I. Recommended lower division work

These courses and competencies are not prerequisites, but will give the student adequate background for upper division study.

A. Recommended Courses, 12 units recommended

ANTH 2060. Introduction to Cultural Anthropology, 3 units
ENGL 1500. Perspectives in Literature, 3 units
HIST 1010, 1020. Western Civilization, 6 units
HIST 2050. Third World I, 4 units
SOC 1010. Introduction to Sociology, 3 units

B. Recommended Competencies

Library skills
Reading knowledge of a foreign language

II. Required Courses: Twenty-one units, distributed as below:

A. Analytical Studies, 6 units (must be taken in two different departments)

ANTH 3560. Old World Archaeology, 3 units
ANTH 4150. Religion in Anthropological Perspective, 4 units
PHIL 4450. Philosophy of Religion, 4 units
PSY 3200. Psychology of Religion, 3 units
SOC 4320. Sociology of Religion, 3 units

B. Historical Studies, 9 units

Religions in at least two different cultures must be studied, and at least one course must be taken which emphasizes non-Christian religion (HIST 3110, 3890, 4870,
or, when applicable, 4960. When research projects or analytical studies are required in the below courses, the student is to pursue topics which center on religious studies (copies of the results will be kept by the adviser) until the student has completed his minor or concentration.

HIST 3110. Ancient Mediterranean World I, 4 units
HIST 3120. Ancient Mediterranean World II, 4 units
HIST 3140. Medieval Europe I, 3 units
HIST 3150. Medieval Europe II, 3 units
HIST 3210. Renaissance and Reformation, 3 units
HIST 3300. History of Western Christianity, 3 units
HIST 3890. The Oriental Mind, 4 units
HIST 4660. American Religious History, 3 units
HIST 4870. History of Religion in Africa, 3 units
HIST 4960. Directed Reading Seminar in History, 3 units

C. Electives upon Advisement, 6 units

Courses listed above or courses approved by the adviser and meeting the following criterion: major emphasis is given to the history or analysis of man's religious experience. Such courses may be used to substitute for the above lists upon approval of the adviser.

HISTORY HONORS PROGRAM:
RECOMMENDED AND REQUIRED COURSES

The honors candidate must fulfill the following requirements in addition to the major described above:

Two additional courses in European and one additional course in non-Western history, with the following qualifications:

1. The European courses must include one course from each of the following groups: a) HIST 3110, 3120; and b) HIST 3140, 3150, 3210, 3220.
2. The non-Western courses must include at least one course from the following list: HIST 3510, 3800, 3860.
3. The courses taken to fulfill the non-Western requirement may be taken in two separate geographic areas, but not more than two.

Pass a senior examination covering course work and reading undertaken in the history major.

Three courses in liberal arts outside of history.

Reading knowledge of an appropriate foreign language.
History

DEGREE MINOR IN HISTORY

Eighteen units in history, of which 12 units must be upper division history courses. All but Winter Term courses are to be taken ABCDF.

The courses for the degree minor in history are to be selected in consultation with and are to be approved beforehand by the minor adviser.

TEACHING CREDENTIALS

The major requirements in History for students interested in obtaining a single subject teaching credential are the same as those listed for the History major. Please refer to the Education section of the Catalog for a description of other requirements to be completed in obtaining a single subject credential.

LIBERAL STUDIES CONCENTRATION IN HISTORY

The Liberal Studies concentration in History consists of 20 units, at least 17 of which must be upper division units, chosen from both Western (American and European) and non-Western courses, in approximately equal amounts, by advisement.

MASTER OF ARTS DEGREE PROGRAMS IN HISTORY

There are three choices within the Master of Arts degree:

1. MASTER OF ARTS

   This is the customary degree program. It is appropriate for persons interested in pursuing the study of history whether for college teaching or other purposes. Students may specialize in American or Modern European history.

2. MASTER OF ARTS: SECONDARY SCHOOL TEACHERS CONCENTRATION*

   This program is designed for persons credentialed for junior or senior high school teaching, and is considered a terminal degree.

3. MASTER OF ARTS: INTERNATIONAL RELATIONS CONCENTRATION

   This program is of particular interest to those in professional military careers, those wishing to supplement their professional training in certain civil service careers, and those desiring an interdisciplinary background for teaching.

*This program is pending approval. Students should consult the History Department for information.
Prerequisites for Admission:

ALL PROGRAMS:

1. A grade point average of 3.0 in the undergraduate major and in all subsequent course work. Due to the experience factor in admission to the Secondary School Teachers and the International Relations Concentrations, students applying for admission in those concentrations who lack the 3.0 GPA may petition for admission on Conditionally Classified Status.

2. Satisfactory performance in the General Aptitude section of the Graduate Record Examination.

MASTER OF ARTS:

Complete prerequisites for admission (#1 and #2) listed above, as well as the following:

3. Twenty-four units of upper division history, including a senior thesis or equivalent.

4. Satisfactory performance in the History section of the Graduate Record Examination.

5. Reading knowledge of an appropriate foreign language.

SECONDARY SCHOOL TEACHERS CONCENTRATION:*

Complete prerequisites for admission (#1 and #2) listed above, as well as the following:

3. The applicant must have a valid California single-subject teacher's credential. The credential shall be in Social Sciences, History, or Government, or the applicant shall have a teaching minor therein.

4. Adequate academic background as evaluated by the Graduate Committee.

INTERNATIONAL RELATIONS CONCENTRATION:

Complete prerequisites for admission (#1 and #2) listed above, as well as the following:

3. Adequate academic background, informal preparation, and/or job-related experience, as evaluated by the History/International Relations Graduate Committee.

REQUIREMENTS FOR THE DEGREE

Each student will be assigned an adviser immediately upon acceptance. The student and adviser will work out a program adapted to the specific goals of the student. On being promoted

*This program is pending approval. Students should consult the History Department for information.
History

to "candidate for the degree" following completion of a minimum of 10 units, an examining committee will be appointed for the candidate.

ALL PROGRAMS:

1. Twenty-four units are to be taken in courses offered by CSCS.
2. Fifteen of the 24 units are to be taken after admission to classified graduate standing.
3. No course work below "B" may be applied to any M.A. requirement, nor are CR-graded courses applicable.
4. When enrolled in a 4000-level (senior) course, the graduate student must do an appropriate paper or equivalent exercise above and beyond those required of undergraduates.
5. Each student's record will be reviewed after completing 10 units, and periodically thereafter by the appropriate graduate committee. The student must maintain satisfactory progress.
6. A student not doing a thesis is required to submit through his adviser at least two substantial papers. The thesis or papers will be read by his examining committee.
7. A comprehensive written examination is required of all candidates, and will cover all work taken in the program. In addition, an oral examination may be required at the discretion of the examining committee.
8. In the papers and examination the student is expected to demonstrate knowledge of subject matter, including working knowledge of the seminal works in the field, and competence in the following three skills:
   Ability to perform research operations
   Analytical skills
   Literary skills

MASTER OF ARTS:

Complete all of above requirements, as well as the following:

9. At least 15 graduate units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 5900. Graduate Studies (two four-unit sections required)</td>
<td>8</td>
</tr>
<tr>
<td>HIST 5930. History of Historical Writing (required)</td>
<td>4</td>
</tr>
<tr>
<td>HIST 5970. Selected Topics offered during Winter Term</td>
<td>2-4</td>
</tr>
<tr>
<td>HIST 5980. Individual Study</td>
<td>1-6</td>
</tr>
<tr>
<td>HIST 5990. Thesis</td>
<td>3-6</td>
</tr>
</tbody>
</table>
10. Additional units to complete a minimum of 30 selected from the 4000- and 5000-level courses listed in the catalog, except for HIST 4970, 4980, and 4990 for which parallel graduate numbers exist.

SECONDARY SCHOOL TEACHERS CONCENTRATION:

Complete all of above requirements, as well as the following:

9. HIST 4190. Introduction to the Graduate Study of History .................................. 4
   (required; may be waived by the Graduate Committee)

At least 15 graduate units from the following:

HIST 5900. Graduate Studies (1 section required) . 4
HIST 5930. History of Historical Writing (required) ................. 4
HIST 5970. Selected Topics offered during
   Winter Term .................. 2-4
HIST 5980. Individual Study ................. 1-6
HIST 5990. Thesis ......................... 3-6

10. Additional units to complete a minimum of 30 selected from the 4000- and 5000-level courses listed in the catalog, except for HIST 4970 and 4980. Up to 9 units of appropriate course work in a field other than history may be selected from senior and graduate courses in other departments, provided the student has completed the specified prerequisites.

INTERNATIONAL RELATIONS CONCENTRATION:

Complete all of above requirements as well as the following:

9. At least 15 graduate units from the following:

HIST/PSCI 5000. International Relations Seminar (required) ................. 4
HIST 5930. History of Historical Writing (required) ................. 4
HIST 5900. Graduate Studies (may be repeated) ........ 4
HIST 5950. Selected Topics in History (may be repeated) ................. 4
HIST 5970. Selected Topics during Winter Term .. 2-4
HIST 5980. Individual Study ................. 1-6
HIST 5990. Thesis ......................... 3-6

*This program is pending approval. Students should consult the History Department for information.
History

10. Additional units to complete a minimum of 30, selected from the following:

a. Up to 6 units of appropriate postgraduate work from other institutions of higher learning may apply toward this requirement.

b. 5000-level course listed above, or appropriate Winter Term courses numbered HIST 5970, PSCI 5970, or ECON 5970.

c. Any of the following courses, or others as offered:

HIST 4040. Rise and Fall of European Colonial Systems; 3 units
HIST 4330. Modern France, 3 units
HIST 4340. Modern Germany, 3 units
HIST 4360. Modern Britain, 1603 to the Present, 3 units
HIST 4430. Soviet Russia, 3 units
HIST 4600. American Diplomatic History, 3 units
HIST 4800. Modern China, 3 units
HIST 4840. Modern Japan, 3 units
HIST 4950. Selected Topics (when an international relations topic is taught), 1-5 units
HIST 4960. Directed Readings Seminar in History, 3 units
PSCI 4450. Political Elites, 3 units
PSCI 4610. National Security Administration and Policy Making, 3 units
PSCI 4620. International Dimensions of National Security Policy, 3 units
PSCI 4630. Inter-American Affairs, 3 units
ECON 4050. Comparative Economic Systems, 3 units
ECON 4410. International Trade, 3 units
ECON 4420. Soviet Economics, 3 units
ECON 4430. International Economic Policies, 3 units
GEOG 4200. Geography of Developing Areas, 3 units

COURSE DESCRIPTIONS

Lower Division

HIST 1010. Western Civilization I (3)

Intellectual, political, and social history of Western man from the earliest civilizations to 1500. Examination of man's past efforts to organize his society, to understand the nature of his universe, and to interpret the riddle of human destiny.

HIST 1020. Western Civilization II (3)

Continuation of HIST 1010. The modern world since 1500.
HIST 2050. Third World I (4)

An integrated history of the premodern civilizations of Africa, the Americas, East Asia, and the Middle East, stressing comparisons of socio-economic patterns, governmental theory and practice, and intellectual traditions.

HIST 2060. Third World II (4)

An integrated history of the civilizations of Africa, the Americas, East Asia, and the Middle East, focusing on a comparative analysis of their struggles for liberation and independence.

HIST 2600. Problems in U.S. History (3)

Review of American history from 1609: American, historical, political and economic concepts, main trends, and recurring issues. Open only to freshmen and sophomores.

HIST 2900. Library Resources and Bibliographical Control for Historical Research (2)

Survey of abstracts, bibliographies, biographical directories, book review indexes, dictionaries, documents, encyclopedias, and indexes for historical research; and the application of footnote and bibliographical methods for history majors. Same as GEOG 2900 and PSCI 2900.

HIST 2950. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of history. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

HIST 2980. Selected Topics offered during Winter Term (4)

Upper Division

HIST 3000. Introductory Seminar in History (3)

Introduction to the study of history as a discipline, with focus on a major historical work. The circumstances under which the work was produced will be examined through reading, class discussion, and individual work with the instructor.

HIST 3090. Contemporary World History (3)

Integrated global history of mankind since 1945. The aftermath of World War II, the Cold War, the collapse of colonial empires, the impact of the death of Stalin, the youth revolution, Sino-Soviet rivalry, and U.S.-Soviet détente. Prerequisite: Sophomore standing.
History

3110. Ancient Mediterranean World I (4)

From early Sumer to Alexander the Great. Prerequisite: Sophomore standing. HIST 1010 or 2050 or equivalent.

HIST 3120. Ancient Mediterranean World II (4)

The Hellenistic Age, Roman Republic and Empire, and the triumph of Christianity. Prerequisite: Sophomore standing. HIST 3110 recommended.

HIST 3140. Medieval Europe I (3)

Western Europe as an underdeveloped area from the fading of Roman rule to 1100. Prerequisite: Sophomore standing. HIST 1010 recommended.

HIST 3150. Medieval Europe II (3)

Western Europe from 1100 to 1500. Prerequisite: Sophomore standing. HIST 1010 recommended. HIST 3140 should precede HIST 3150 when possible.

HIST 3210. Renaissance and Reformation (3)

European social, political, economic, and intellectual changes from the late middle ages to 1598: the Renaissance state; Renaissance humanism; the Reformation; social impact of the Reformation. Prerequisite: Sophomore standing.

HIST 3220. Absolutism and Revolution, 1598-1799 (3)

European social, political, economic, and intellectual changes: royal absolutism; the scientific revolution; seventeenth-century revolutions; the Enlightenment; the French Revolution. Prerequisite: Sophomore standing.

HIST 3230. Nineteenth Century Europe (3)

Democratization in the age of nationalism; Napoleon to Sarajevo. Prerequisite: Sophomore standing.

HIST 3240. Twentieth Century Europe (3)

Origins of World War I, the War, the uneasy peace, the democracies and the dictators between the wars, World War II and the Cold War. Prerequisite: Sophomore standing.

HIST 3300. History of Western Christianity (3)

A survey of the development of Christianity from the age of Constantine to the present. Emphasis will be placed on Christian
thought, Christian institutions, and the relationship between Christianity and society in Western history. Prerequisite: Sophomore standing.

HIST 3510. Latin America in Colonial Times (3)

A survey of Latin American history: native Indian cultures, European conquests and resulting cultural conflict, Spanish and Portuguese rule, and trends in colonial society. Prerequisite: Sophomore standing.

HIST 3520. Latin American States Since Independence (3)

From the struggle for independence to the mid-twentieth century. Prerequisite: Sophomore standing.

HIST 3610. Colonial America (3)

The Anglo-American colonies of the North American mainland; from their foundation through their maturation and struggle for independence to their emergence as the United States of America. Prerequisite: Sophomore standing.

HIST 3620. Ante-Bellum America (3)

United States, 1789-1865. Founding of the Union through the Civil War; quest for cultural independence; interaction of popular democracy and economic growth; slavery, sectionalism, and nationalism. Prerequisite: Sophomore standing.

HIST 3630. America After the Civil War (3)

United States, 1865-1914. Reconstruction through Progressivism: development of a complex urban-industrial society; coming of world power. Prerequisite: Sophomore standing.

HIST 3640. Contemporary America (3)

United States since 1914. World War I to the present: America's role as a great power; problems of welfare capitalism. Prerequisite: Sophomore standing.

HIST 3710. Mexican-American History (3)

The role of the Mexican-American in the 19th and 20th centuries with emphasis on the modern period. Prerequisite: Sophomore standing.

HIST 3800. East Asia in Traditional Times (3)

Origins and development of the principal institutions and cultural patterns of China, Japan, and Korea from earliest times to the nineteenth century. Prerequisite: Sophomore standing.
HIST 3810. East Asia in the Modern World (3)

Disintegration of the traditional civilizations of China, Japan, and Korea under the impact of the West, and the subsequent quest for reintegration and adjustment to the West since the nineteenth century. Prerequisite: Sophomore standing.

HIST 3860. Africa Before 1800 (3)

Historical development of social, political and economic institutions of traditional African societies and relations with classical antiquity, Asia, Europe from America. Prerequisite: Sophomore standing.

HIST 3870. Africa, 1800-1945 (3)

Establishment of 19th century state systems, the economic, cultural, and ideological context of African resistance movements and their later reactions to the colonial situation. Prerequisite: Sophomore standing.

HIST 3880. Contemporary Africa, 1945 to the Present (3)

The interplay of historical forces leading to the decolonization of Africa, the reorganization of African state systems and Africa's participation in world affairs. Prerequisite: Sophomore standing.

HIST 3890. The Oriental Mind (4)

Historical survey of the major works of Chinese and Japanese thought illustrating the main tenets and evolution of Confucianism, Taoism, Buddhism, Shintoism, and Maoism. Prerequisite: Sophomore standing.

HIST 4030. Age of Exploration (3)

Exploration since Henry the Navigator; search for gold and spices. Establishment of trading factories and mercantilist colonies in Asia and Africa. Fall of the old colonial empires. Prerequisite: One year of college-level history or consent of instructor.

HIST 4041. Colonialism & Nationalism in Africa and Asia, 1800-1965 (3)

19th century colonialism and 20th century revolutions in Africa, South and Southeast Asia. Prerequisite: One year of college-level history or consent of instructor.
HIST 4210. European Intellectual History: Renaissance to the Present (3)

A study of the major ideologies in modern Europe and the means by which these ideologies were institutionalized. (Formerly 4300) Prerequisite: One year of college-level history or consent of instructor.

HIST 4310. Modern Spain (3)

A broad political, economic, and social survey: expansiveness of Castile; economic and social consequences of world role; Bourbon reformers, responses to Napoleonic interference; 19th and 20th century struggles to define a modern identity. Prerequisite: One year of college-level history or consent of instructor.

HIST 4330. Modern France (3)

Development of the French nation, with emphasis on the period since 1870. Prerequisite: One year of college-level history or consent of instructor.

HIST 4340. Modern Germany (3)

The problem of German disunity since the Reformation. The rise of Prussia, romanticism and German nationalism, World War I, Hitler and World War II, the partition of Germany since 1945. Prerequisite: One year of college-level history or consent of instructor.

HIST 4350. England to 1603 (3)

Political and constitutional history from the Anglo-Saxon invasion to the creation of a modern nation state. Prerequisite: One year of college-level history or consent of instructor.

HIST 4360. Modern Britain, 1603 to the Present (3)

Political, social, and intellectual developments from the Stuart era to the present. Prerequisite: One year of college-level history or consent of instructor.

HIST 4420. Russia to 1917 (3)

Russia from earliest times to the revolutions of 1917. Prerequisite: One year of college-level history or consent of instructor.

HIST 4430. Soviet Russia (3)

Russia and the Soviet Union from the revolution of 1917 to the end of the Brezhnev era. Prerequisite: One year of college-level history or consent of instructor.
HIST 4500. History of Mexico (3)

From independence to the mid-twentieth century. Prerequisite: One year of college-level history or consent of instructor.

HIST 4600. American Diplomatic History (3)

U.S. foreign relations from the colonial period to the present. Prerequisite: One year of college-level history or consent of instructor.

HIST 4640. Constitutional History of the United States (3)

The theory of limited government, and how the American people have applied it. Prerequisite: One year of college-level history or consent of instructor.

HIST 4660. American Religious History (3)

American religious institutions and thought from colonial origins to the present; importance of European backgrounds and American environment in producing a unique American religious tradition; impact upon social and cultural development. Prerequisites: Junior standing and two courses in American history.

HIST 4670. California History (3)

Indian culture; Spanish exploration and settlement; environment; political, economic, and social factors which give California its unique character. (Formerly 3670) Prerequisite: One year of college-level history or consent of instructor.

HIST 4680. American Intellectual and Social History (3)

Impact of European experience and American environment; impact on the cultural milieu of industrialism, urbanism, and U.S. world involvement. Prerequisite: One year of college-level history or consent of instructor.

HIST 4800. Modern China (3)

Analysis of the main trends of nineteenth and twentieth century imperialism in China and the consequent rise of Chinese anti-imperialism; main features of China's socio-economic system and the gradual development of reform movements culminating under the People's Republic. Prerequisites: Junior standing and one year of college-level history.

HIST 4840. Modern Japan (3)

Development of Japan from a feudal society of the early nineteenth century to a major world power in the present day. Emphasis
History

will be on the conflicting themes of authoritarianism and liberalism. Prerequisites: Junior standing and one year of college-level history.

HIST 4850. China and the United States (3)

A comprehensive survey of the economic, political, and cultural relations between China and the United States from the 18th century to the present. (Formerly 3850) Prerequisite: One year of college-level history or consent of instructor.

HIST 4870. History of Religion in Africa (3)

Historical study of African religious systems, their impact on African political theory, their socio-economic dimensions, and their interaction with Islam and Christianity. Prerequisite: One year of college-level history or consent of instructor.

HIST 4910. Introduction to Graduate Studies in History (4)

Graduate level introduction to (1) the techniques of historical research: bibliography, sources, methodology, and (2) theories of the nature of history or historical investigation. Prerequisite: Graduate status in the MA/SST program.

HIST 4950. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

HIST 4960. Directed Reading Seminar in History (3)

Reading on a theme or period of the student's choice. Prerequisite: Consent of instructor.

HIST 4970. Selected Topics offered during Winter Term (4)

HIST 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

HIST.4990. Senior Thesis (Topics to be specified in Class Schedule) (4)

Methodology of history. Research techniques applied to investigation of original source material. May be repeated for a maximum of 8 units. Prerequisites: Senior standing, advanced course work in history, and consent of instructor. Under exceptional circumstances, juniors may be admitted.
History

Graduate

HIST 5000. International Relations Seminar (4)

Research on an international relations topic, using history and political science methodology. (Topics to be specified in the Class Schedule) To be taken concurrently with PSCI 5000 International Relations Seminar. This course is primarily for the International Relations/History M.A. concentration, but is open to all qualified students.

HIST 5900. Graduate Studies (4)

Reading of major secondary works or intensive original research in American or European history. Prerequisites: Advanced course work in American or European history as appropriate, and consent of instructor.

HIST 5930. The History of Historical Writing (4)

The problem of reproducing and analyzing the past as seen through the eyes of major historians and philosophers of history from earliest times to the present. Prerequisite: Advanced course work in history.

HIST 5950. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

HIST 5970. Selected Topics offered during Winter Term (4)

HIST 5980. Individual Study (1-4)

For qualified graduate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

HIST 5990. Thesis (3-6)

Thesis research. Prerequisite: Consent of instructor.
International Studies

A Concentration Within the Social Sciences Major

Steven W. Hughes, Ph.D., Director

The International Studies program provides a framework of study for those students interested in the interrelations of nations and peoples. Because these interrelations are complex and operate at different levels (economic, political, military, cultural, etc.), a student must be selective with regard to the areas to be investigated. Thus the focus of a student's coursework in this concentration may be on a particular area (Europe, Africa, the Middle East, Latin America, etc.), or on international problems (economic, political, diplomatic, etc.), or on international organizations and their functions, or aspects of intercultural communication, etc. To identify the most appropriate pattern of courses, the student will prepare his program in close consultation with the program director. The director should also be consulted regarding career opportunities.

Requirements for the Bachelor of Arts, Social Sciences, with a Concentration in International Studies

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the lower division breadth requirements, as specified below.
3. Complete the major of not less than 35 upper division units, as approved by the adviser, and distributed as follows:

   SSCI 3000. Library Resources for the Social Sciences, 2 units
   SSCI 4960. Social Sciences Interdisciplinary Seminar, 3 units
   4 courses in the discipline of student's major interest
   3 courses in a second discipline
   3 courses in a third discipline

12 courses of not less than 35 upper division units; of these no more than 8 units of CR-graded Winter Term course work may apply toward the major.

A student on entering the International Studies concentration should work out with the Director a tentative program for the remainder of his or her undergraduate course work. Henceforth, the student should work out a trial study list prior to each advising appointment. In such a broad major, close cooperation between adviser and advisee is necessary if mistakes are to be avoided.
A. Lower division breadth requirements:
Students will take courses to satisfy all areas.

1. Environment: (one of the following)
   GEOG 2010. Introduction to the Physical Environment, 3 units
   GEOG 2400. World Regional Geography I, 3 units
   GEOG 2410. World Regional Geography II, 3 units

2. Culture: (either of the following)
   ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World, 3 units
   ANTH 2060. Introduction to Cultural Anthropology, 3 units

3. Social Organization: (either of the following)
   SOCL 1010. Introduction to Sociology, 3 units
   SOCL 2240. Social Problems, 3 units

4. Personality: (either of the following)
   PSYC 2010. Introduction to Psychology, 3 units
   PSYC 3200. Psychology of Religion, 3 units

5. Social Control: (either of the following)
   SPCH 2011. Approaches to Human Communication, 4 units
   SPCH 2102. Group Discussion Processes, 3 units

6. Economic Organization: (either of the following)
   ECON 2500. Principles of Economics I, 4 units
   ECON 2510. Principles of Economics II, 4 units

7. The Social Sciences as science: (one of the following)
   HIST 3000. Introductory Seminar in History, 3 units
   PSCI 2000. Introduction to Political Science, 3 units
   PSYC 2020. Introduction to Psychological Methods, 3 units
   SOCL 2030. Research Methods, 4 units

B. Upper division major.
Complete 4 courses in one of the following disciplines and 3 courses each in two others, as approved by the adviser.
Note: Some of these disciplines require additional lower division introductory course work not already specified in Section A above. Students will select courses from the 3 preferred disciplines according to the following rules:
International Studies

1. **ANTHROPOLOGY**, Prerequisite: ANTH 2060, Introduction to Cultural Anthropology, 3 units

   Upper Division Courses:
   - ANTH 3050. Cultures of the Middle East, 3 units
   - ANTH 3060. Australia and Oceania, 3 units
   - ANTH 3070. Peoples of Africa, 3 units
   - ANTH 3100. East and South Asia, 3 units
   - ANTH 3110. Peoples of the Soviet Union, 3 units
   - ANTH 3370. Native Peoples of Mexico, 3 units
   - ANTH 3400. Modern Ethnographic Studies, 1-4 units
   - ANTH 3580. Origins of Old World Civilizations, 3 units
   - ANTH 4010. Culture and Personality, 3 units
   - ANTH 4860. Anthropological Linguistics, 4 units
   - ANTH 4100. Studies in Social Anthropology, 1-4 units
   - ANTH 4200. Applied Anthropology & Social Change, 4 units
   - ANTH 4210. Cultural Dynamics, 3 units
   - ANTH 4220. Folk Literature & Arts in Anthropological Perspective, 4 units
   - ANTH 4640. Archaeological Expedition, 1-8 units
   - ANTH 4980. Individual Study, 1-4 units

2. **ECONOMICS**, Prerequisite: ECON 2500, Principles of ECON I, or equivalent, 4 units

   Upper Division Courses:
   - ECON 4000. Intermediate Theory (Macroeconomics), 3 units
   - ECON 4010. Economic Thought, 3 units
   - ECON 4050. Comparative Economic Systems, 3 units
   - ECON 4160. Economic History of Europe, 3 units
   - ECON 4200. Intermediate Theory (Microeconomics), 3 units
   - ECON 4401. Third World Economics, 3 units
   - ECON 4410. International Trade, 3 units
   - ECON 4420. Soviet Economics, 3 units
   - ECON 4430. International Economic Policies, 3 units
   - ECON 4450. Economic Planning, 3 units
   - ECON 4540. Public Finance & Fiscal Policy, 3 units
   - ECON 4980. Individual Study, 1-4 units

3. **GEOGRAPHY**, Prerequisite: One of the following:
   - GEOG 2010. Introduction to the Physical Environment, 3 units
   - GEOG 2020. Introduction to Cultural Geography, 3 units
   - GEOG 2400. World Regional Geography I, 3 units
   - GEOG 2410. World Regional Geography II, 3 units

   Upper Division Courses:
   - GEOG 3020. Human Ecology, 3 units
   - GEOG 3070. Agricultural Geography, 3 units
   - GEOG 3300. Economic Geography, 3 units
   - GEOG 3550. Geography of Europe, 3 units
International Studies

GEOG 3570. Geography of the Soviet Union and Its Satellites, 3 units
GEOG 3590. Geography of Asia, 4 units
GEOG 4200. Geography of Developing Areas, 3 units
GEOG 4300. Geography of Resource Planning, 3 units
GEOG 4980. Individual Study, 1-4 units

4. HISTORY. Prerequisite: One year of lower division history, United States History, Western Civilization, or non-Western History.

Upper Division Courses:
HIST 3000. Introductory Seminar in History, 3 units
HIST 3090. Contemporary World History, 3 units
HIST 3230. 19th Century Europe, 3 units
HIST 3240. 20th Century Europe, 3 units
HIST 4040. Rise & Fall of European Colonial Systems, 1830-1965, 3 units
HIST 4210. European Intellectual History: Renaissance to the Present, 3 units
HIST 4310. Modern Spain, 3 units
HIST 4330. Modern France, 3 units
HIST 4340. Modern Germany, 3 units
HIST 4360. Modern Britain, 1603 to the Present, 3 units
HIST 4420. Russia to 1917, 3 units
HIST 4430. Soviet Russia, 3 units
HIST 4600. American Diplomatic History, 3 units
HIST 4960. Directed Reading Seminar in History, 3 units

Non-Western:
HIST 3510. Latin America in Colonial Times, 3 units
HIST 3520. Latin American States Since Independence, 3 units
HIST 3800. East Asia in Traditional Times, 3 units
HIST 3810. East Asia in the Modern World, 3 units
HIST 3860. Africa Before 1800, 3 units
HIST 3870. Africa 1800-1945, 3 units
HIST 3880. Contemporary Africa, 1945 to the Present, 3 units
HIST 3890. The Oriental Mind, 4 units
HIST 4800. Modern China, 3 units
HIST 4840. Modern Japan, 3 units
HIST 4870. History of Religion in Africa, 3 units
HIST 4980. Individual Study, 1-4 units

5. POLITICAL SCIENCE. Prerequisite: PSCI 1201, American Government, 3 units
PSCI 3400. Comparative Politics: Europe, 4 units
PSCI 3410. Comparative Politics: Latin America, 4 units
PSCI 3420. Comparative Politics: East Asia, 4 units
PSCI 3450. Comparative Politics: USSR & Eastern Europe, 3 units
PSCI 3600. International Relations, 4 units

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International Studies

PSCI 3620. Soviet Foreign Policy, 3 units
PSCI 4420. Comparative Bureaucracies, 3 units
PSCI 4450. Political Elites, 3 units
PSCI 4610. National Security Administration and Policy Making, 3 units
PSCI 4620. International Dimensions of National Security Policy, 3 units
PSCI 4630. Inter-American Affairs, 3 units
PSCI 4980. Individual Study, 1-4 units

6. SOCIOLOGY. Prerequisite: SOCL 1010, Introduction to Sociology, 3 units

Upper Division Courses:
SOCL 3200. Social Change, 3 units
SOCL 3430. Population, Resources, and the American Future, 3 units
SOCL 4320. Sociology of Religion, 3 units
SOCL 4400. Political Sociology, 3 units
SOCL 4520. Personality and Society, 3 units
SOCL 4600. Industrial Sociology, 3 units
SOCL 4980. Individual Study, 1-4 units
Liberal Studies

Charles C. Hanna, Ed.D., Professor of Education
Coordinator

Liberal Studies is a multidisciplinary major which is designed to provide the student with the opportunity to pursue a liberal education in the following academic areas: Social Sciences, Mathematics-Science, Arts-Humanities, and English-Speech.

The Liberal Studies major fulfills the following career objectives:

1. It provides the subject matter waiver program prerequisite for students who are planning to pursue a multiple subject credential.
2. It provides an interdisciplinary-based degree program for students who are pursuing professional careers and occupations requiring an interdisciplinary background in the liberal arts. In addition to providing a strong interdisciplinary background, it provides the student the opportunity to develop a program concentration in a single academic discipline.

REQUIREMENTS FOR THE BACHELOR OF ARTS, LIBERAL STUDIES

I. Basic Liberal Studies Area Requirements

<table>
<thead>
<tr>
<th>Units</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Social Sciences (see list below)</td>
<td>18</td>
</tr>
<tr>
<td>B. Mathematics-Science (see list below)</td>
<td>18</td>
</tr>
<tr>
<td>C. Arts-Humanities (see list below)</td>
<td>18</td>
</tr>
<tr>
<td>D. English-Speech (see list below)</td>
<td>18</td>
</tr>
</tbody>
</table>

This pattern of courses satisfies the general education requirements for the degree. No minor is required. For other requirements see "General Requirements for Degrees."

II. Completion of a Concentration | 20 |

A concentration shall include 20 units, at least 15 of which must be in the upper division. The concentration must be selected from the following list.

* Students wishing to pursue a Liberal Studies program with a Bilingual/Cross-Cultural emphasis and concentration are referred to Bilingual/Cross-Cultural Studies section of the catalog.
III. Completion of six additional units from disciplines of the Areas A, B, C, and D, excluding the area which contains the concentration ........................................... 6

IV. Upper Division Electives ........................................... 25

Students may utilize these units to complete one of the other academic majors offered by the College, as a second major, or may choose to distribute them as broadly as they choose. Students electing to complete a Preliminary Multiple Subject Credential within four years must use these units for professional education, including student teaching. Students electing to complete a Clear Multiple Subject Credential within five years may use the upper division electives to complete a minor or a second major.*

Application to the credential program requires meeting credential requirements outlined in the catalog current at the time of application, and admission to the credential program.

V. Physical Education ........................................... 1

Minimum Total Units Required .................................... 124

OPTIONS AVAILABLE

1. A Bachelor of Arts in Liberal Studies with a concentration as outlined.

2. A candidate for a Multiple Subject Credential may obtain the Bachelor of Arts in Liberal Studies with a concentration as outlined, and also complete the professional education prerequisites and student teaching within four years, obtaining a Preliminary Credential. The Clear Credential is awarded

* Students seeking a Multiple Subject Credential should consult the Education section of this Catalog for professional education requirements.
upon completion of a fifth year of studies. (See the catalog section on Education.) Under this option, no more than 15 semester units of the fifth year may be required in professional education. Since the remaining units must be in academic subjects, the students may also complete a second bachelor's degree in any other major offered by the College. (See "Requirements for an Additional Baccalaureate Degree" in the Catalog.)

3. A Multiple Subject Credential candidate may complete a major in Liberal Studies with a second academic major rather than a concentration by postponing the completion of one's professional education courses until the fifth year. This option should be considered by students pursuing advanced degrees in academic areas.

**BASIC LIBERAL STUDIES AREA REQUIREMENTS**

**AREA A: SOCIAL SCIENCES**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PSCI 1201. American Government</td>
<td>3</td>
</tr>
<tr>
<td>2. History: One of the following</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2600. Problems in U.S. History, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3610. Colonial America, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3620. Ante-Bellum America, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3630. America After Civil War, 3 units</td>
<td></td>
</tr>
<tr>
<td>HIST 3640. Contemporary America, 3 units</td>
<td></td>
</tr>
<tr>
<td>3. PSYC 2010. Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>4. One of the following Anthropology or Geography Courses:</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World, 3 units</td>
<td></td>
</tr>
<tr>
<td>ANTH 2060. Introduction to Cultural Anthropology, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 2000. Interaction: Man &amp; the Earth, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 2400. World Regional Geography I, 3 units</td>
<td></td>
</tr>
<tr>
<td>GEOG 2410. World Regional Geography II, 3 units</td>
<td></td>
</tr>
<tr>
<td>5. *Additional work selected from the social sciences upon advisement</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
</tr>
</tbody>
</table>

* Courses in ETHS are appropriate electives to apply to Area A-5.
## Liberal Studies

**AREA B: MATHEMATICS-SCIENCE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1030</td>
<td>Elementary Foundations of MATH I, and</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1040</td>
<td>Elementary Foundations of MATH II</td>
<td>3</td>
</tr>
<tr>
<td><strong>BIOL 1010</strong></td>
<td>Principles of Biology, Lec &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td><strong>CHEM 1000</strong></td>
<td>Chemistry in the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1500</td>
<td>Energy &amp; Matter, Lec &amp; Lab</td>
<td>3</td>
</tr>
<tr>
<td>One course from the following</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ASTR 2100</td>
<td>Descriptive Astronomy, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>BIOL 2650</strong></td>
<td>Environmental Biology, 2 units</td>
<td></td>
</tr>
<tr>
<td>GEOL 2100</td>
<td>Principles of Geology, Lec &amp; Lab, 4 units</td>
<td></td>
</tr>
<tr>
<td><strong>PHSC 1000</strong></td>
<td>Solar Energy Today, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>PHSC 1300</strong></td>
<td>Environmental Pollution, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

**AREA C: ARTS-HUMANITIES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1000</td>
<td>Introduction to Drawing, 3 units</td>
<td>3</td>
</tr>
<tr>
<td>ART 1010</td>
<td>Drawing I, 3 units</td>
<td></td>
</tr>
<tr>
<td>ART 2100</td>
<td>Art History Survey I, 3 units</td>
<td></td>
</tr>
<tr>
<td>ART 2110</td>
<td>Art History Survey II, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>Drama</strong></td>
<td>One of the following</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 1010</td>
<td>Introduction to Theatre, 3 units</td>
<td></td>
</tr>
<tr>
<td>DRAM 3020</td>
<td>Children's Theatre, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
<td>One of the following</td>
<td>3</td>
</tr>
<tr>
<td>FREN 3930</td>
<td>Literature in Translation, 3 units</td>
<td></td>
</tr>
<tr>
<td>GERM 3930</td>
<td>Literature in Translation, 3 units</td>
<td></td>
</tr>
<tr>
<td>SPAN 3930</td>
<td>Literature in Translation, 3 units</td>
<td></td>
</tr>
<tr>
<td><strong>MUS 1190</strong></td>
<td>Music Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td><strong>Three units elected from one of the following</strong></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ART 1010</td>
<td>Drawing I, 3 units</td>
<td></td>
</tr>
<tr>
<td>ART 2100</td>
<td>Art History Survey I, 3 units</td>
<td></td>
</tr>
<tr>
<td>ART 2110</td>
<td>Art History Survey II, 3 units</td>
<td></td>
</tr>
</tbody>
</table>

**These courses meet the College requirement that students complete a course which includes the scientific aspect of environmental topics.**

322
**Liberal Studies**

**Units Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 3420</td>
<td>Art Appreciation &amp; Criticism for the Non-Art Major</td>
<td>3</td>
</tr>
<tr>
<td>*DRAM 1000</td>
<td>Theatre Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 2600</td>
<td>Reader's Theatre</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3020</td>
<td>Children's Theatre</td>
<td>3</td>
</tr>
<tr>
<td>FOR LANG:</td>
<td>An additional 3930 course</td>
<td>3</td>
</tr>
<tr>
<td>MUS 1000</td>
<td>Introduction to Music</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1000</td>
<td>Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1010</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1100</td>
<td>Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2400</td>
<td>Contemporary Moral Problems</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3010</td>
<td>Classics of Western Civilization</td>
<td>3</td>
</tr>
</tbody>
</table>

6. PHIL 3000. Humanistic Inquiry .................................. 3

Total ............................................... 18

**AREA D: ENGLISH-SPEECH**

1. ENGL 1000. English Composition .................................. 3

2. Select one of the following ..................................... 3
   - ENGL 1010. Introduction to Literature, 3 units
   - ENGL 1500. Perspectives in Literature, 3 units
   - ENGL 1501. Perspectives in American Literature, 3 units

3. Select one of the following ..................................... 3 or 4
   - SPCH 2002. Public Speaking, 3 units
   - SPCH 2011. Approaches to Human Communication, 4 units
   - SPCH 2102. Group Discussion Processes, 3 units

4. ENGL 3001. Advanced Composition .................................. 3

5. SPCH 3010. Language & Speech Development ........................ 3

6. Additional units to be selected from the following courses upon advisement ..................... 2 or 3
   - ENGL 2010. Critical Approaches to Literature, 3 units
   - ENGL 3800. Introduction to Linguistics, 3 units
   - ENGL 3810. Introduction to Historical Linguistics, 3 units

*Enrollment in DRAM 1000 is limited to 1 enrollment for Liberal Studies credit.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3815</td>
<td>Introduction to Bilingualism</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4602</td>
<td>Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4603</td>
<td>Adolescent Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 2400</td>
<td>Oral Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 2911 &amp; 3911</td>
<td>Communication Projects, 2 units</td>
<td>2</td>
</tr>
<tr>
<td>SPCH 3000</td>
<td>Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3020</td>
<td>Structural and Psycholinguistics</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 3050</td>
<td>General Semantics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3400</td>
<td>Oral Interpretation of Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3410</td>
<td>Oral Interpretation of Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 18

**AREA E: PHYSICAL EDUCATION**

1. PHED 1000. Any 1000-level activity class. 1
Marine Sciences

MOSS LANDING LABORATORIES

The California State University and Colleges operate the Moss Landing Marine Laboratories at Moss Landing, California. This marine facility functions as a seaside extension of the campuses of six cooperating State University and Colleges (Stanislaus, Fresno, Hayward, Sacramento, San Francisco, and San Jose) and offers course work in marine biology, geology, meteorology, oceanography, and other marine sciences. The curriculum is designed to fulfill major requirements for qualified upper division and graduate students. Such students can plan their academic schedules to provide for one or more terms at the Moss Landing Marine Laboratories and will be considered as in-residence at California State College, Stanislaus.

Interested students should make early application because enrollment is limited. Consult advisers in the Department of Biological Sciences or Department of Physical Sciences for further details or write to the Director, Moss Landing Marine Laboratories, P. O. Box 223, Moss Landing, California 95039.

COURSE DESCRIPTIONS

MSCI 3010. General Oceanography (4)

An interdisciplinary examination of physical and chemical characteristics of seawater, distribution and effects of ocean currents, waves and tides, geology of the ocean floor and relations of organisms to the marine environment. (Lecture, 3 hours; lab or field, 3 hours) Prerequisites: College chemistry and mathematics, concurrent registration in MSCI 3020. (MLML 101)

MSCI 3020. Marine Science Techniques (4)

Introductory field and laboratory practice in the techniques for collection, analysis, and interpretation of data on the marine environment. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: College chemistry and mathematics, concurrent registration in MSCI 3010. (MLML 102)

MSCI 3030. Marine Ecology (4)

A field-oriented introduction to the interrelationships between marine and estuarine organisms and their environment with emphasis on quantitative data collection and analysis. (Lecture, 2 hours, lab or field, 6 hours) Prerequisites: Ecology, statistics (or concurrent registration in MSCI 3040), or consent of instructor. (MLML 103)
MSCI 3040. Quantitative Marine Science (3)

The mathematical methods for the analysis of biological, chemical and physical data from the marine environment; experimental design, parametric and non-parametric statistics. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: College mathematics. (MLML 104)

MSCI 3050. Marine Science Diving (3)

Skin and scuba diving course; pool training culminates in five ocean dives. Thorough background in diving physics and physiology. Successful completion gives NAUI, YMCA, L.A. County or MLML certification. (No credit toward science major) (Lecture, 1 hour; lab or field, 6 hours) Prerequisites: Upper division science major status, thorough physical examination, ability to pass swimming test. (MLML 105)

MSCI 3060. Subtidal Ecology (4)

Studies of communities in the sublittoral zone, stressing application of ecological research techniques by the diver. Field exercises in sampling, community analysis, and ecological surveys in space and time will be carried out. Students will present a seminar and plan, execute, and report the results of a research project. (Lec/discussion, 2 hours; lab/field, 6 hours) Prerequisites: MLML Diver Certification, MSCI 3030, and MSCI 3210 or 3310. (MLML 106)

MSCI 3110. Zoology of Marine Vertebrates (4)

A field-oriented study of natural history, ethology, physiology, identification, and systematics of vertebrates living in or associated with marine, estuarine, and shore communities; emphasis upon interrelationships of organisms within these environments. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: College zoology or equivalent. MSCI 3030 recommended. (MLML 111)

MSCI 3120. Marine Birds and Mammals (4)

Systematics, morphology, ecology, and biology of marine birds and mammals. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: Upper division college vertebrate zoology, MSCI 3110, or consent of instructor. MSCI 3030 recommended. (MLML 112)

MSCI 3130. Marine Ichthyology (4)

A description of the taxonomy, morphology, and ecology of marine fishes. Both field and laboratory work concentrate on the structure, function and habits of marine fishes and the ecological interaction of these fishes with their biotic and abiotic surroundings. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: College zoology or equivalent; MSCI 3110 or consent of instructor. MSCI 3030 recommended. (MLML 113)
MSCI 3220. Marine Invertebrate Embryology (4)

Survey of principles of developmental biology, concentrating on experimental evidence obtained using invertebrate material. Laboratory observations will cover the embryology of lower invertebrates, molluscs, crustacea, echinoderms, and protochordates. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3240, cell biology or biochemistry strongly recommended, or consent of instructor. (MLML 122)

MSCI 3230. Marine Invertebrate Physiology (4)

Comparative physiology of the invertebrates; laboratory problems on nutrition, respiration, osmotic regulation, coordination, and other physiological functions. General principles of physiology will be discussed using examples from the invertebrate phyla. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCL 3210, general physiology, or consent of instructor. (MLML 123)

MSCI 3240. Marine Invertebrate Zoology I (4)

A field-oriented introduction to the structure, systematics, evolution, and life histories of the major marine invertebrate phyla. (Lecture, 2 hours; lab or field, 6 hours) (Formerly 3210) Prerequisites: College zoology or consent of instructor; MSCI 3030 recommended.

MSCI 3250. Marine Invertebrate Zoology II (3)

Field-oriented introduction to the structure, systematics, evolution, and life histories of the minor marine invertebrate phyla. (Lecture, 1 hour; lab or field, 6 hours). Prerequisites: College zoology or consent of instructor; MSCI 3030 and 3240 recommended.

MSCI 3310. Marine Phycology (4)

Introduction to the plants of the sea, with emphasis on taxonomy, natural history, ecology and economic significance of the larger marine algae. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: College botany. MSCI 3030 recommended. (MLML 131)

MSCI 3320. Introduction to Marine Plankton (4)

Identification, distribution, and ecology of phytoplankton and zooplankton. Introduction to sampling and analytical procedures. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3010. 3030 recommended. (MLML 132)
MSCI 3410. Geological Oceanography (3)

A study of the structures, physiography, and sediments of the sea bottom and shoreline. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010 and 3020 (concurrent registration satisfactory). (MLML 141)

MSCI 3420. Marine Biogenic Sedimentation (3)

Interdisciplinary studies of the provenance, biologic, and geologic composition of marine sediments and of the organisms contributing to their formation; sedimentary processes affecting these sediments. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010 and college geology and biology or consent of instructor. (MLML 142)

MSCI 3430. Coastal Geomorphology (3)

Study of the world oceans' shoreline resulting from the supply of materials and energy to the coast. Consideration is given to modification due to eustatic and tectonic sea level changes. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: Physical geology or physical geography. (MLML 143)

MSCI 3510. Marine Meteorology (3)

Introductory discussion of the interaction between ocean and atmosphere including exchange of heat, momentum and particles and their influence on waves and currents and on weather and climate. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: MSCI 3010. (MLML 151)

MSCI 3610. Marine Fisheries (4)

An introduction to fishery biology, including the concepts stock, recruitment, and yield, emphasizing the parameters abundance, age, growth, and mortality. Discussion of hydrography and fishery ecology, management problems, world fisheries and mariculture, and collection and analysis of fishery data. (Lecture, 2 hours; lab, 6 hours) Prerequisites: College mathematics, MSCI 3040, 3110, or consent of instructor. MSCI 3030 recommended.

MSCI 3710. Oceanographic Summer Cruise (4)

Oceanographic shipboard research in California coastal waters; preliminary selection of research topic, cruise logistics, shipboard instrumentation. Following the one-week cruise, samples will be analyzed and data interpretation will be presented as written reports. (Lecture, 2 hours; lab and field, 6 hours) Prerequisites: MSCI 3010, 3020, 3030, 3040. (MLML 171)
MSCI 3720. Marine Environmental Group Research (3)

Student involvement in scientific investigations; employment of scientific methodology and principles; literature surveys, experience in writing and presenting research findings on specific projects. (Lecture, 1 hour; lab and field, 6 hours) Prerequisites: MSCI 3010, 3020, 3030, 3040. (MLML 172)

MSCI 3750. Topics in Marine Sciences (3-4)

The study of a selected area in the marine sciences. The subjects vary from one offering to the next depending on demand and availability of instructors. Prerequisite: Consent of instructor. Offered only on demand. (MLML 175)

MSCI 3770. Microscopic Techniques (3)

Principles and techniques of light and electron microscopy. Consideration of brightfield, darkfield, phase contrast, and interference contrast light microscopy; episcopic and diascopic illumination systems; photomicrography; preparation of materials for and operation of the scanning electron microscope. (Lecture, 2 hours; lab, 3 hours) Prerequisites: One semester college physics and consent of instructor.

MSCI 4980. Individual Study (1-4)

Faculty-directed study of selected research problems; open to undergraduate students with adequate preparation. Prerequisite: Consent of instructor. (MLML 180)

Graduate

MSCI 5010. Concepts of Marine Science (3)

Study of the major principles and concepts of the marine sciences; analysis of outstanding researches from recent scientific literature. Development of laboratory exercises. The course is designed for updating knowledge of school teachers or for students working on teaching credentials. Not open to marine science majors. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010 and 3030 or consent of instructor. (MLML 201)

MSCI 5020. Marine Instrumental Analysis (4)

Theory and use of advanced instrumentation; advanced field and laboratory techniques for the interpretation of data collected in marine science research. (Lecture, 2 hours; lab, or field, 6 hours) Prerequisites: MSCI 3010, 3020, and quantitative analysis. (MLML 202)
Marine Sciences

MSCI 5030. Advanced Marine Ecology (3)
Advanced considerations of marine populations, communities and ecosystems with emphasis on current literature. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3030 and consent of instructor; MSCI 3040 recommended. (MLML 203)

MSCI 5110. Behavior of Marine Animals (3)
The causation, development, and evolution of the behavior of marine animals. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: MSCI 3040 or statistics or consent of instructor. (MLML 211)

MSCI 5120. Topics in Marine Vertebrates (4)
Advanced consideration of the ecology, physiology, and phylogeny of fishes, birds, or mammals, emphasizing current literature and research. Topics and emphasis will vary with term and instructor. May be repeated once for credit. (Lecture, 2 hours; lab and field, 6 hours) Prerequisites: MSCI 3110, 3120, or 3130 and consent of instructor. (MLML 212)

MSCI 5210. Topics in Marine Invertebrates (4)
Advanced considerations of the ecology, physiology, and phylogeny of the various invertebrate phyla emphasizing current literature and research. Topics and emphasis will vary from term to term. May be repeated once for credit. (Lecture, 2 hours; lab and field, 6 hours) Prerequisites: MSCI 3210 and consent of instructor. (MLML 221)

MSCI 5220. Biology of the Mollusca (4)
Systematics, functional morphology, ecology, and physiology of the mollusca with emphasis on the marine forms. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3210 or consent of instructor. (MLML 222)

MSCI 5310. Advanced Marine Phycology (4)
Lecture-discussions in algal development, reproduction, and ecology. Extensive reading of original literature. Ecologically oriented individual research projects involving laboratory culture and field experimentation. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3310 or consent of instructor. (MLML 231)

MSCI 5320. Advanced Marine Plankton (4)
Course emphasis on the physiology of phytoplankton and zooplankton. Students undertake individual research projects that include literature review, laboratory work, and oral and written reports. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3320 or consent of instructor. (MLML 232)
MSCI 5410. Marine Microorganisms (3)

A study of living and fossil microorganisms with emphasis on environmental significance. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3210 and college geology or consent of instructor. (MLML 241)

MSCI 5420. Plate Tectonics (3)

Historical background, modern theory and geophysical evidence of continental drift, sea floor spreading and plate tectonics. Examinations of the impact of the recent revolution in historical geology. (Lecture, 3 hours) Prerequisite: MSCI 3410 or consent of instructor. (MLML 242)

MSCI 5510. Marine Geochemistry (4)

Geochemical processes in the oceans: thermodynamics of low-temperature aqueous reactions, weathering, oxidation-reduction and biologically mediated reactions, processes occurring at the sea floor and air-sea interface. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3010, quantitative analysis, one year calculus, or consent of instructor. (MLML 251)

MSCI 5520. Topics in Marine Chemistry (4)

Selected topics dealing with the biochemistry or geochemistry of the oceans. May be repeated for credit. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3010 and consent of instructor. (MLML 252)

MSCI 5610. Descriptive Physical Oceanography (4)

The mathematical description of the distribution of properties (density, dissolved oxygen, etc.) in the oceans relating to physical and biochemical processes. Theory of distribution of variables, geostrophic method. (Lecture, 3 hours; lab or field, 3 hours) Prerequisites: MSCI 3010, one year calculus or consent of instructor. (MLML 261)

MSCI 5710. Population Biology (3)

Principles of the interaction among marine organisms which result in the alteration of population structures; techniques for assessment and management of animal populations. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3030, 3040, or consent of instructor. (MLML 271)

MSCI 5730. Environmental Studies of Monterey Bay (3)

A research course in the advanced aspects of marine sciences, topics determined by consultation with faculty and dependent on facilities available. Laboratory and field studies will be
Marine Sciences

carried out by individuals or as joint research projects by several individuals. Research topics to be concerned with local marine problems. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3030, 3040, or consent of instructor. (MLML 273)

MSCI 5750. Advanced Topics in Marine Sciences (3-4)

The study of a selected area in the marine sciences. The subjects vary from one offering to the next depending on demand and availability of instructors. Prerequisite: Consent of instructor. Offered only on demand. (MLML 275)

MSCI 5770. Human Ecology of Monterey Bay (3)

Investigation and analysis of changes produced by human impacts on the coastal environment with emphasis on physiographic alterations and ecological implications. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010, 3030, or consent of instructor. (MLML 277)

MSCI 5850. Graduate Seminar in Marine Biology (2)

Seminar will be held on topics changing each semester. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 285)

MSCI 5860. Graduate Seminar in Marine Geology (2)

Seminar will be held on topics changing each semester. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 286)

MSCI 5870. Graduate Seminar in Oceanography (2)

Seminar will be held on topics changing each semester. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 287)

MSCI 5980. Research in the Marine Sciences (1-4)

Independent investigations of an advanced character for the graduate student with adequate preparation. Prerequisite: Consent of instructor. (MLML 298)
Mathematics

Narendra L. Maria, Ph.D., Professor, Chair
Louis A. Feldman, Ph.D., Professor
James N. Javaher, Doctorat d'Université, Professor
Chester W. Dyche, M.A., Professor
Shang-Wang Chang, Ph.D., Associate Professor
Ralph L. James, Ph.D., Associate Professor
Sadrudin S. Fazal, Ph.D., Assistant Professor
Allan W. Ristow, Ph.D., Assistant Professor
Kent E. Wooldridge, Ph.D., Assistant Professor

The Department of Mathematics offers courses in computer science, mathematics, operations research, and statistics. Courses are designed to provide quality undergraduate training in the mathematical sciences and to serve the needs of majors in mathematics, the natural and social sciences, and other fields. The degree programs of the Department of Mathematics provide preparation for various careers in the mathematical sciences.

The department offers the degrees Bachelor of Arts, and Bachelor of Science, Mathematics. Both degree programs can be used to acquire preparation for various careers in business, education, government, and industry. Both degree programs can be used to acquire preparation for advanced study in mathematics and/or its applications. The Bachelor of Science degree program is oriented more towards the various applications of mathematics. The department offers concentrations in Computer Science, Operations Research, and Statistics within the Bachelor of Science degree program. A student may focus on a specific career objective in the applications of mathematics by completing one of the concentrations in the Bachelor of Science degree program. The department also offers a concentration in Mathematics for the Bachelor of Arts degree in Liberal Studies.

The degree programs presuppose seven semesters of high school level mathematics: algebra (2 years), plane geometry (1 year), and trigonometry (½ year); solid geometry and physics are desirable. Deficiencies may be made up by proper selection of courses in the lower division. Recommended courses in lower division supporting fields are one year of economic theory or one year of general physics.
Mathematics

REQUIREMENTS FOR THE BACHELOR OF ARTS OR THE Bachelor of Science MATHEMATICS

Mathematics majors are to:

1. Complete the college requirements for a bachelor's degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units as specified for the Bachelor of Arts degree. No more than 8 units of Winter Term or CR graded course work may apply toward the major.

Completion of a minor is not required.

DEGREE MAJOR FOR THE BACHELOR OF ARTS, MATHEMATICS

Prerequisites to the major:

- MATH 1410, 1420. Calculus I, II, 8 units
- MATH 1600. Statistics, 4 units
- MATH 2000. FORTRAN Programming, 3 units
- MATH 2410. Multivariate Calculus, 4 units
- MATH 2500. Elementary Linear Algebra, 3 units

The Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3060. Modern Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3500, 3501. Modern Algebra I, II</td>
<td>6</td>
</tr>
<tr>
<td>MATH 4100, 4101. Analysis I, II</td>
<td>6</td>
</tr>
</tbody>
</table>

Upper division courses in mathematics as approved by the major adviser 9

Total 24

DEGREE MAJOR FOR THE BACHELOR OF SCIENCE, MATHEMATICS

Prerequisites to the major:

- MATH 1410, 1420. Calculus I, II, 8 units
- MATH 2000. FORTRAN Programming, 3 units
- MATH 2010. Computer Programming, 2 units
- MATH 2410. Multivariate Calculus, 4 units
- MATH 2500. Elementary Linear Algebra, 3 units

Additional recommended prerequisites to the major with an elective concentration in Computer Science:

- MATH 1150. Conversational BASIC Programming, 2 units
- BUS 2000. Introduction to Computers, 3 units
- BUS 2010. Computer Programming, 3 units

Additional prerequisite to the major with an elective concentration in Operations Research:

- MATH 1610. Statistics for Decision Making, 3 units

Additional prerequisite to the major with an elective concentration in Statistics:

- MATH 1600. Statistics, 4 units
Mathematics

The Major

Two of the following year sequences of courses as approved by the major adviser ....... 16

MATH 3250, 3260. Ordinary Differential Equations, Partial Differential Equations, 8 units
MATH 3650, 3660. Probability & Statistics I, II, 8 units
MATH 4350, 4360. Numerical Analysis I, II, 8 units
MATH 4450, 4460. Introduction to Operations Research I, II, 8 units

Upper division courses in mathematics as approved by the major adviser .......... 8

Total ................. 24

ELECTIVE CONCENTRATIONS WITHIN THE DEGREE MAJOR FOR THE BACHELOR OF SCIENCES, MATHEMATICS

A student who elects to have a concentration in Computer Science, Operations Research or Statistics may do so by completing the prerequisites to the major, the additional prerequisite to his elective concentration, the requirements for the major, and the requirements for this concentration.

COMPUTER SCIENCE CONCENTRATION

Complete the requirements for the major so as to include:

MATH 3100. Assembly Language Programming ........ 3
MATH 3200. Computer Simulation Techniques ........ 3
MATH 4000. Computability and Logic ............... 3
MATH 4200. Programming Languages and Data Structures .......... 3
MATH 4350, 4360. Numerical Analysis I, II .......... 8

Additional year sequence of courses from the requirements for the major .......... 8

Total ................. 28
## Mathematics

### Operations Research Concentration

Complete the requirements for the major so as to include:

- MATH 3200. Computer Simulation Techniques ........ 3
- MATH 3500, 3501. Modern Algebra I, II .................. 6
- MATH 4450, 4460. Introduction to Operations Research I, II .................. 8

Additional year sequence of courses from the requirements for the major .................. 8

Complementary study in operations research oriented, upper division courses as approved by the major adviser .................. 3

Total ........................................ 28

### Statistics Concentration

Complete the requirements for the major so as to include:

- MATH 3200. Computer Simulation Techniques ........ 3
- MATH 3650, 3660. Probability and Statistics I, II .................. 8
- MATH 4100, 4101. Analysis I, II .................. 6
- MATH 4650. Applied Statistics .................. 3

Additional year sequence of courses from the requirements for the major .................. 8

Total ........................................ 28

### Degree Minor in Mathematics

Eighteen units, including at least 10 units in upper division.

MATH 1410, 1420. Calculus I, II, 8 units

Upper division courses in mathematics as approved by the minor adviser, 10 units.
**Mathematics**

**LIBERAL STUDIES CONCENTRATION IN MATHEMATICS***

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>MATH 3060</td>
<td>Modern Geometry</td>
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</tr>
<tr>
<td>MATH 3500</td>
<td>Modern Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>Upper division courses in mathematics as approved by the major adviser</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

**TEACHING CREDENTIALS**

Majors in mathematics interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

The major requirements in Mathematics for students interested in obtaining a single subject teaching credential are the same as those listed for the Bachelor of Arts degree, Mathematics major. Please refer to the Education section of the catalog for a description of other requirements to be completed in obtaining a single subject credential.

**MATHEMATICS SUB-AREAS**

**COMPUTER SCIENCE**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH 1150</td>
<td>Conversational BASIC Programming</td>
<td>2</td>
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<tr>
<td>MATH 1200</td>
<td>Computers and Society</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1411</td>
<td>Computer Calculus Lab I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1421</td>
<td>Computer Calculus Lab II</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2000</td>
<td>FORTRAN Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2010</td>
<td>Computer Programming</td>
<td>2</td>
</tr>
<tr>
<td>MATH 3100</td>
<td>Assembly Language Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3200</td>
<td>Computer Simulation Techniques</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4000</td>
<td>Computability and Logic</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4200</td>
<td>Programming Languages and Data</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Structures</td>
<td></td>
</tr>
<tr>
<td>MATH 4350</td>
<td>Numerical Analysis I</td>
<td>4</td>
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<tr>
<td>MATH 4360</td>
<td>Numerical Analysis II</td>
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</table>

**OPERATIONS RESEARCH**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH 4450</td>
<td>Introduction to Operations Research I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 4460</td>
<td>Introduction to Operations Research II</td>
<td>4</td>
</tr>
</tbody>
</table>

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*MATH 1410, 1420. Calculus I, II, may substitute for MATH 1030, 1040 to fulfill Liberal Studies Area "B" requirements in mathematics.*
STATISTICS

MATH 1600. Statistics, 4 units
MATH 1610. Statistics for Decision Making, 3 units
MATH 3650. Probability and Statistics I, 4 units
MATH 3660. Probability and Statistics II, 4 units
MATH 3650. Applied Statistics, 3 units

COURSE DESCRIPTIONS

Lower Division

MATH 1000. Math for Liberal Arts Students (3)

Sets, numeration systems, the systems of natural numbers, integers, rational numbers, and real numbers; selected topics from elementary number theory, probability, geometry, logic, and other areas of mathematics. Recommended for general students seeking an understanding of the nature of mathematics. Not open to students who have received credit for MATH 1410, 1500, or their equivalent. Not applicable to the major or minor in Mathematics.

MATH 1030. Elementary Foundations of Mathematics I (3)

Elementary set theory, number systems, properties of real numbers, solutions of equations and inequalities. Recommended for students seeking an elementary teaching credential.

MATH 1040. Elementary Foundations of Mathematics II (3)

Continuation of MATH 1030. Functions and graphs, elementary probability and statistics, Euclidean geometry, measure, introduction to analytic geometry. Recommended for students seeking an elementary teaching credential. Prerequisite: MATH 1000 or 1030.

MATH 1050. Basic College Algebra (3)

Exponents, fractions, radicals, elementary inequalities, polynomials, logarithmic and exponential equations, arithmetic and geometric series, binomial theorem. Prerequisite: One year of high school algebra or MATH 1000 or 1050.

MATH 1100. Precalculus (3)

Coordinate systems, relations, functions, composite and inverse functions, introduction to analytic geometry, mathematical induction, circular and trigonometric functions, complex numbers, fundamental theorem of algebra. Prerequisite: Two years of high school algebra or MATH 1050.
Mathematics

MATH 1150. Conversational BASIC Programming (2)

An introduction to time-shared BASIC programming for all students. It will introduce BASIC programming concepts, acquaint the student with interactive terminal usage, the RSTS/E operating system and the use of predefined processes.

MATH 1200. Computers and Society (3)

To give a basic knowledge of computers and their present use, and to explore implications for our society. Topics covered will include an introduction to computers and the BASIC programming language with emphasis on social, political, and philosophical implications. (Lecture, 2 hours; laboratory, 2 hours)

MATH 1410. Calculus I (4)

Inequalities, functions and graphs, limits and continuity, the derivative, differentiation of algebraic functions, applications of differentiation, the definite integral, conic sections. Prerequisite: MATH 1100 or equivalent.

MATH 1411. Computer Calculus Lab I (1)

The lab will use the BASIC language on the campus timesharing computer to provide illustrations of the concepts being taught in the course. Numerical methods for dealing with calculus will be developed. Topics include: functions, limits, derivatives, Newton's method, numerical integration. Prerequisite: Concurrent enrollment in MATH 1410.

MATH 1420. Calculus II (4)

Trigonometric and exponential functions, parametric equations, thorough techniques of integration, applications of the definite integral, L'Hopital's rule, infinite series. Prerequisite: MATH 1410.

MATH 1421. Computer Calculus Lab II (1)

The lab will use the BASIC language on the campus timesharing computer to provide illustrations of the concepts being taught in the course. Numerical methods for dealing with calculus will be developed. Topics include: Logarithmic and exponential functions, trig functions and their inverses, polar coordinates, parametric equations, hyperbolic functions, sequences, series, approximations for transcendental functions, limits in indeterminate cases. Prerequisite: Concurrent enrollment in MATH 1420.

MATH 1500. Finite Mathematics (3)

Algebra of sets, theory of partitions and counting, elementary probability theory, vectors and matrices, Markov chains. Prerequisite: Two years of high school algebra or MATH 1050.
MATH 1600. Statistics (4)

Introductory course designed for students in the behavioral, biological, and social sciences. The description of sample data, probability and probability distributions, sampling and estimation, testing hypotheses, correlation and regression, introduction to analysis of variance. (Lecture, 3 hours; laboratory, 2 hours) Prerequisite: One year of high school algebra or MATH 1000 or 1030.

MATH 1610. Statistics for Decision Making (3)

Introductory course for students in business administration. Organization and analysis of data, index numbers, elementary probability, distributions, sampling and estimation, correlation and regression, time series. Prerequisite: Two years of high school algebra or MATH 1050.

MATH 1910. Calculus with Applications I (3)

The fundamental concepts of calculus and their applications to problems in the behavioral, biological, chemical, decision, and social sciences will be introduced. Functions, graphs, limits, the derivative, applications of the derivative, definite integral. This course is not open to students who are seeking a Bachelor of Arts degree in mathematics, physical sciences, or physics; nor is it open to students seeking a Bachelor of Science degree in chemistry or mathematics. Prerequisite: MATH 1050.

MATH 1920. Calculus with Applications II (3)

Fundamental concepts of calculus and their applications to the behavioral, biological, chemical, decision, and social sciences will be introduced. Logarithmic and exponential functions, trigonometric functions, techniques of integrations, applications of the definite integral, introduction to calculus in higher dimensions. This course is not open to students seeking a Bachelor of Arts degree in mathematics, physical sciences, or physics; nor is it open to students seeking a Bachelor of Science degree in chemistry or mathematics. Prerequisite: MATH 1910 or 1410.

MATH 2000. FORTRAN Programming (3)

Design and construction of FORTRAN programs to solve problems in various computer applications. The principles of operation and history of computers are briefly covered. (Lecture, 2 hours; laboratory, 2 hours) Prerequisite: MATH 1050 or two years of high school algebra.

MATH 2010. Computer Programming (2)

A continuation of MATH 2000 with emphasis on more sophisticated applications of programming and use of the capabilities of the
Mathematics

Laboratory projects will involve the student's area of interest when possible. (Lecture, 1 hour; laboratory, 2 hours). Prerequisite: MATH 2000 or equivalent.

MATH 2410. Multivariate Calculus (4)

Vectors in three dimensions, solid analytic geometry, partial differentiation, multiple integration, differentiation under the integral sign, vector field theory. Prerequisite: MATH 1420.

MATH 2500. Elementary Linear Algebra (3)

Vector spaces, matrices, linear transformations, determinants, systems of linear equations, selected applications. (Formerly 2420) Prerequisite: MATH 1420.

MATH 2950. Selected Topics in Mathematics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of mathematics. Topics vary each term. Different topics may be taken for credit. Prerequisites: Sophomore standing and consent of instructor.

MATH 2970. Selected Topics offered during Winter Term (4)

Upper Division

MATH 3060. Modern Geometry (3)

Axiom systems for Euclidean and non-Euclidean geometries, construction of geometries from fields, isometries in the Euclidean plane, geometric constructions. Prerequisite: MATH 1420.

MATH 3100. Assembly Language Programming (3)

Computer programming at the machine level. Machine language and basic machine architecture, addressing modes, sub-program linkage, program sectioning, and overlays, I/O programming, macros, and interrupts. Prerequisite: MATH 2010 or equivalent.

MATH 3200. Computer Simulation Techniques (3)

Introduction to simulation, planning computer simulation experiments, simulation models. Simulation methodology, design of experiments, analysis of data, validation of models and results. Programming selected applications. (Lecture, 2 hours; laboratory, 2 hours) Prerequisites: MATH 1600 or 1610 or ECON 3200, and MATH 2000.

MATH 3250. Ordinary Differential Equations (4)

Linear ordinary differential equations, existence and uniqueness, series solutions, special functions, Laplace transforms, systems of linear equations. Prerequisite: MATH 1420.
MATH 3260. Partial Differential Equations (4)

Basic concepts, first order partial differential equations, classification of second order equations, initial value problems for wave equation, boundary value problems for Laplace and heat equations, maximum principle, existence and uniqueness theorems, applications. Prerequisite: MATH 2410 or 3250.

MATH 3300. Introduction to General Topology (3)

Naive set theory, metric spaces, separation properties, continuous functions, connectedness, compactness, completeness, general topological spaces, selected applications. Prerequisite: MATH 2410.

MATH 3500. Modern Algebra I (3)

Naive set theory, real and complex numbers, groups, rings, integral domains, fields, polynomials, solvability, selected applications from automata theory. (Formerly 3550) Prerequisite: MATH 1420.

MATH 3501. Modern Algebra II (3)

Continuation of MATH 3500. (Formerly 3560) Prerequisite: MATH 3500.

MATH 3502. Linear Algebra (3)

Vector spaces, linear transformations, canonical forms, inner-product spaces, spectral theorem, selected applications. Prerequisite: MATH 3500.

MATH 3650. Probability and Statistics I (4)

Concept of probability; concepts of random variables, expected values, variance and covariance; continuous probability distributions, binomial distribution and its limiting cases, normal distribution and Poisson distribution, Markov chains. Prerequisite: MATH 1420 or consent of instructor.

MATH 3660. Probability and Statistics II (4)

Sampling distributions, point and interval estimations, decision theory, goodness of fit tests, simple nonparametric tests. Prerequisite: MATH 3650.

MATH 4000. Computability and Logic (3)

An introduction to the theory of computability including Turing machines, recursive functions, the halting problem, Post's correspondence problem, and Gōdel's incompleteness theorems along
with an introduction to 1st order logic, Gödel's completeness theorem and nonstandard models. Prerequisites: MATH 1420 and 2000.

MATH 4100. Analysis I (3)

Sequences, limit theorems, continuity, differentiation, Riemann-Stieltjes integral. (Formerly 4150) Prerequisite: MATH 2410.

MATH 4101. Analysis II (3)

Multiple integration, uniform convergence, vector analysis, inverse and implicit function theorems. (Formerly 4160) Prerequisite: MATH 4100.

MATH 4102. Lebesgue Integral (3)

Lebesgue measure on the real line and \( \mathbb{R}^n \). The Lebesgue integral, convergence theorems, \( L^p \) spaces. Prerequisite: MATH 4101.

MATH 4200. Programming Languages and Data Structures (3)

Formal definition of grammar and language symbols and strings. Syntax and semantics of simple statements and expressions, precedence operators and grammars, syntactic analysis of precedence grammars, structure of algorithmic languages, basic concepts of data, lists, arrays, trees, and graphs. Storage systems and structures, storage allocation and collection. Symbol tables, searching and sorting techniques. Prerequisite: MATH 2010. MATH 3200 recommended.

MATH 4350. Numerical Analysis I (4)

Floating point arithmetic, errors, the solution of nonlinear equations, matrices and systems of linear equations, nonlinear systems, interpolation. Prerequisites: MATH 1420 and 2000.

MATH 4360. Numerical Analysis II (4)

Numerical differentiation and integration, numerical solution of differential equations and boundary value problems, approximation. Prerequisite: MATH 4350.

MATH 4450. Introduction to Operations Research I (4)

Vectors and matrices, classical optimization methods, theory of the simplex method, duality, post-optimal analysis. Prerequisites: MATH 1420 and 2000, or consent of instructor.
MATH 4460. Introduction to Operations Research II (4)
Special types of linear programming, network analysis, dynamic programming, game theory, advanced topics in linear programming. Prerequisite: MATH 4450.

MATH 4500. Theory of Numbers (3)
Euclid's algorithm and fundamental theorems on divisibility, prime numbers, congruence of numbers, theorems of Fermat, Euler, and Wilson, congruence of first and higher degrees, Lagrange's theorem and its applications, quadratic residues. Prerequisite: MATH 1420.

MATH 4600. Complex Variables (3)
Complex numbers, analytic functions. Cauchy-Riemann equations, Cauchy theorem, Laurent series, calculus of residues, selected applications. Prerequisite: MATH 2410.

MATH 4650. Applied Statistics (3)

MATH 4840. Mathematics for Business (3)
Selected topics in mathematics which have special applications in business administration. Topics include: elementary set theory, limits, differentiation, integration, maxima-minima, linear systems, matrices. The course does not count towards major or minor in Mathematics. Prerequisite: High school algebra or consent of instructor.

MATH 4950. Selected Topics in Mathematics (Topics to be specified in Class Schedule) (1-5)
Development of a selected branch of mathematics. Topics vary each term. Different topics may be taken for credit. Prerequisites: Senior standing and consent of instructor.

MATH 4960. Seminar in Mathematics (2)
Presentation and discussions of selected topics in mathematics from the current literature. Prerequisite: Consent of instructor.

MATH 4970. Selected Topics offered during Winter Term (4)
MATH 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Senior standing and consent of instructor.

MATH 5950. Selected Topics in Mathematics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of mathematics. Topics vary each term. Different topics may be taken for credit. Prerequisites: Postbaccalaureate standing and consent of instructor.

MATH 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Postbaccalaureate standing and consent of instructor.

Professional Postgraduate

MATH 6030. Foundations of Mathematics I (3)

Elementary set theory, mappings, elementary number theory, structure of the real number system, equations, and inequalities. Recommended for elementary teachers who hold the bachelor degree and who wish to qualify for the Standard Teaching Credential.

MATH 6040. Foundations of Mathematics II (3)

Metric and nonmetric geometry, introduction to analytic geometry, functions and graphs, mathematical systems, probability. Recommended for elementary and junior high school teachers seeking an advanced course in mathematics.

MATH 6980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Postbaccalaureate standing and consent of instructor.
Multidisciplinary Studies

The College offers multidisciplinary courses outside the departmental and school structure. These courses are given the MDIS prefix.

COURSE DESCRIPTIONS

MDIS 2000. Library Resources (2)

To provide students with the essential background for effective use of libraries, the basic college library reference materials, and the fundamental library resources or their subject majors.

MDIS 2970. Selected Topics offered during Winter Term (4)

MDIS 3100. Women in America (3)

An overview of the role of women in contemporary American society. An interdisciplinary approach to the study of women is stressed. Topics to be examined include perspectives and images of women in society, the role of women in society and the issue of sex role innovation. No prerequisites.

MDIS 3500. The Technological Society (3)

An interdisciplinary analysis of the social and ecological crises caused by the exponential growth of science and technology. The issues—population, energy, alienation, pollution, etc.—are examined on the global, national, and local levels.

MDIS 4000. Women's Studies Colloquium (2)

This course covers a range of areas and issues concerning women in contemporary American society. Selected topics are presented by guest speakers who are experts in various areas of women's studies. Class discussion follows presentations by guest speakers. Prerequisite: Junior or senior standing.

MDIS 4960. Seminar in Technology and Society (3)

Reading, papers, and discussion on the societal, ecological, and philosophical issues raised by contemporary science and technology. Prerequisite: MDIS 3500 or consent of instructor.

MDIS 4970. Selected Topics offered during Winter Term (4)
Music

Donald A. Williams, D.M.A., Assistant Professor, Chair
Joseph E. Bruggman, Ed.D., Professor
Paul O. Harder, Ph.D., Professor
Gene C. Wisler, Ed.D., Professor
Sylvia M. Ghiglieri, M.M., Professor
R. Scott Coulter, Ph.D., Associate Professor
Gary L. Unruh, D.M.A., Associate Professor
Glenn A. Muegel, D.M.A., Visiting Lecturer

The Department of Music offers the degree Bachelor of Arts, Music. Completion of the major in music prepares a student to apply for admission to the teaching credential program, to apply for graduate level study, or to pursue a career in professional performance, dependent upon specific area of specialization and student interest. Emphasis is placed on the cultivation of individual student potential through study and experience in analysis, performance, theory, history, literature, and composition. Courses in music also provide cultural and aesthetic enrichment for the student in liberal arts.

Requirements for the Bachelor of Arts, Music

Music majors are to:

1. Complete requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 30 upper division semester units; of these no more than 10 units of CR graded course work may apply toward the major.

Completion of a minor is not required.

General Requirements for Music Major and Minor

1. All students contemplating a major or minor in music are required to declare a major performing medium (voice, keyboard, or orchestral instrument) upon entering the program, and will take studio instruction in their major performing medium in accordance with the Degree Major in Music and the Degree Minor in Music. Fifth year credential students are eligible for studio instruction in their major performing medium providing they participate in at least one major performing group in which their major performing medium is utilized.

2. Proficiency tests in piano, singing, sightreading, ear training, theory, and major instrument are required of all transfer students contemplating a major or minor in music. These tests will be taken during the first week of the first term in residence. Students whose scores indicate a degree of inadequacy will be required to enroll in appropriate lower division courses until minimum standards are achieved.

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3. Lower division students will be evaluated during the final semester of the sophomore year for admission to the upper division music major program. Upper division transfer students will be evaluated during the latter part of the first semester in which they enroll in music courses in the College. Evaluation will be based upon lower division course work completed in music, and auditions in the major performing mediums by a committee of the music faculty. Unless standards of performance acceptable to the music faculty have been attained, students may not enroll for upper division courses in music.

4. Students are required to perform in recital each semester as part of a course in applied music as determined by the instructor.

5. Music majors are expected to attend departmental recitals and concerts.

6. All music majors are required to demonstrate an acceptable level of performance skill in both piano and voice. Lower division students must fulfill these requirements by the end of the sophomore year. Students transferring in at the upper division level must complete these requirements by the end of the junior year. Class instruction is offered at the beginning level in both piano and voice. Students must consult their advisers for specific requirements.

7. The music major is required to participate in at least one major performing group (chorale, symphonic wind ensemble, or orchestra) each term, utilizing his major performing medium. Keyboard majors must consult their adviser regarding this requirement.

8. All music majors and minors will demonstrate proficiency on their instrument or voice before a panel of faculty members at the conclusion of each term of applied study.

9. All music majors are required to present themselves in solo or chamber ensemble recital during the senior year.

**DEGREE MAJOR IN MUSIC**

Prerequisites to the Major

MUS 1020. Freshman Music Seminar, 1 unit
MUS 1220, 1230. Theory I, II, 6 units
MUS 1320, 1330. Musicianship Lab I, II, 2 units
MUS 2220, 2230. Theory III, IV, 6 units
MUS 2320, 2330. Musicianship Lab III, IV, 2 units
MUS 2400, 2410, 2440. Major Group Performance, 4 units
MUS 2610, 2640, 2670. Applied Music, 4 units
MUS 2900. Music History & Literature I, 3 units

Demonstration of functional proficiency in basic voice and basic piano (see No. 6 under "General Requirements for Music Majors and Minors").
Music

The Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 3100, 3200</td>
<td>Music History &amp; Literature II, III</td>
<td>6</td>
</tr>
<tr>
<td>MUS 3250.</td>
<td>18th Century Counterpoint</td>
<td>2</td>
</tr>
<tr>
<td>MUS 3260.</td>
<td>Form and Analysis</td>
<td>2</td>
</tr>
<tr>
<td>MUS 3270.</td>
<td>Basic Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 4400, 4410, 4440.</td>
<td>Major Group Performance</td>
<td>4</td>
</tr>
<tr>
<td>MUS 4610, 4640, 4670.</td>
<td>Applied Music</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete one of the following emphases:
(a music major pursuing work toward a teaching credential must complete an emphasis in either vocal or instrumental) ...............• 10

Choral/Vocal Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 3280.</td>
<td>Choral Conducting, 2 units</td>
<td></td>
</tr>
<tr>
<td>MUS 4570.</td>
<td>Vocal/Choral Literature Seminar, 3 units</td>
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</tr>
<tr>
<td>Electives as approved by major adviser, 5 units</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(The single subject credential student in music is required to complete MUS 3670, Instrumental Techniques, 3 units; and MUS 3650, String Techniques I, 1 unit; and a one-unit elective in place of the five units of electives.)

Instrumental Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 3240.</td>
<td>Orchestration, 2 units</td>
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</tr>
<tr>
<td>MUS 3290.</td>
<td>Instrumental Conducting, 2 units</td>
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</tr>
<tr>
<td>Electives as approved by major adviser, 6 units</td>
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<td></td>
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</tbody>
</table>

(The single subject credential student in music is required to complete MUS 3650, 3660, String Techniques I, II, 2 units; and MUS 3670, Instrumental Techniques, 4 units, in place of the 6 units of electives.)

Keyboard Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 3450.</td>
<td>Piano Literature, 2 units</td>
<td></td>
</tr>
<tr>
<td>MUS 3460.</td>
<td>Harpsichord Literature, 2 units</td>
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</tr>
<tr>
<td>MUS 3620.</td>
<td>Accompanying, 2 units</td>
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</tr>
<tr>
<td>Electives as approved by major adviser, 4 units</td>
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<td></td>
</tr>
</tbody>
</table>

(The single subject credential student in music must consult an adviser for details regarding specific music education courses.)

Total .................................... 30

DEGREE MINOR IN MUSIC

Thirty units, of which 8 units must be in upper division.

Lower Division

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 1000.</td>
<td>Introduction to Music, 3 units</td>
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</tr>
<tr>
<td>MUS 1220, 1230.</td>
<td>Theory I, II, 6 units</td>
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</tbody>
</table>
**Music**

MUS 1320, 1330. Musicianship Lab I, II, 2 units
MUS 2900. Music History & Literature I, 3 units
MUS 2400, 2410, 2420, 2440. Major Group Performance, 4 units
MUS 2620, 2630, 2670. Applied Music, 4 units
(Applied Music may be fulfilled at upper division level by students who qualify at that level.)

**Upper Division**

MUS 3100, 3200. Music History & Literature II-III, 6 units
Electives as approved by the minor adviser, 2 units

**LIBERAL STUDIES CONCENTRATION IN MUSIC**

Twenty units, of which 15 units must be upper division.

**Lower Division**

Five units selected from the following and approved by the concentration adviser ........ 5

*MUS 1000. Introduction to Music, 3 units
MUS 1610. Basic Class Piano, 1 unit
MUS 1620. Basic Class Guitar, 1 unit
MUS 1630. Basic Class Voice, 1 unit
MUS 2400, 2410, 2420, 2440. Major Group Performance, 1 unit each
Electives in music.

**Upper Division**

Fifteen units selected from the following and approved by the concentration adviser ........ 15

MUS 3270. Basic Conducting, 2 units
MUS 3340. Music in Elementary School, 3 units
MUS 3400. American Music, 2 units
MUS 3650, 3660. String Technique I, II, 1 unit each
MUS 3670. Instrumental Techniques, 1 unit
MUS 4400, 4410, 4420, 4440. Major Group Performance, 1 unit each
Electives in music

Total ................ 20

**TEACHING CREDENTIAL**

The major requirements in Music for students interested in obtaining a single subject teaching credential are the same as

*MUS 1000 may not apply toward the twenty units of the concentration if used to satisfy Liberal Studies Area C requirements.

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those listed for the Music major. Please refer to the Education section of the catalog for a description of other requirements to be completed in obtaining a single subject credential.

It is possible to complete the credential program (preliminary credential) in four years by following the general program listed below.

### Units

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
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<tr>
<td>General Education</td>
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<tr>
<td>Music Major</td>
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<tr>
<td>Education (includes student teaching &amp; course work)</td>
<td>24</td>
</tr>
<tr>
<td>Music Education:</td>
<td></td>
</tr>
<tr>
<td>MUS 3340. Music in Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>MUS 3370. Curriculum &amp; Instruction: Music</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>128</strong></td>
</tr>
</tbody>
</table>

(Note: The single subject credential student in instrumental music is also required to complete MUS 4550, Instrumental Literature Seminar, 3 units)

**MUSIC COURSES FOR NON-MAJORS**

For the student not majoring in music, the Music Department offers courses for cultural and aesthetic enrichment:

- MUS 1000. Introduction to Music
- MUS 1190. Music Fundamentals
- MUS 1610. Basic Class Piano
- MUS 1620. Basic Class Guitar
- MUS 1630. Basic Class Voice
- MUS 3400. American Music
- MUS 3410. History of Jazz

The general student is welcome to participate in the various performance courses (chorale, college choir, symphonic wind ensemble, jazz ensemble, orchestra and small ensembles).

**COURSE DESCRIPTIONS**

**Lower Division**

**MUS 1000. Introduction to Music (3)**

A course for the general student, tracing the growth and development of music through history from early times to the present. Emphasis is placed on becoming acquainted through listening and analysis with representative forms, styles, and techniques of the various historical periods in music. No prerequisite.

**MUS 1020. Freshman Music Seminar (1)**

Introducing the freshman music student to standard concert repertoire. Prerequisite: Music major or minor.
**Music**

MUS 1190. Music Fundamentals (3)

A beginning course in music reading, notation, intervals, scales, and theory. Designed primarily for the student pursuing the liberal studies major, the general student, and the music student who does not qualify for enrollment in MUS 1220. No prerequisite.

MUS 1220. Theory I (3)

Review and study of rudiments of music notation, scales, key signatures, intervals, triads, and inversion of triads. Emphasis is placed on analysis and creation of melodies based upon techniques of the various musical periods. To be taken concurrently with MUS 1320. Prerequisite: Ability to read treble and bass clefs.

MUS 1230. Theory II (3)

Continuation of MUS 1220; beginning with construction of an underlying tonal harmonic (triadic) continuum. Emphasis will be on chord connection, employment of triadic inversions, and study of basic harmonic rhythm leading to the creation of two-, three-, and four-part textures within a harmonic fabric. To be taken concurrently with MUS 1330. Prerequisite: MUS 1220.

MUS 1320. Musicianship Laboratory I (1)

Diatonic melodic dictation, four-part choral-style dictation, sightsinging and rhythmic studies. To be taken concurrently with MUS 1220.

MUS 1330. Musicianship Laboratory II (1)

Continuation of MUS 1320. Diatonic melodic dictation, four-part chorale-style dictation, sightsinging in clefs and rhythmic studies. To be taken concurrently with MUS 1230. Prerequisite: MUS 1320 or equivalent.

MUS 1610. Basic Class Piano (1)

Basic keyboard experience in reading and playing music from beginning to intermediate level with emphasis on the fundamentals of music theory and structure. May be repeated for a total of 4 units. No prerequisite.

MUS 1620. Basic Class Guitar (1)

A basic course in simple guitar skills designed for those who may or may not have any previous musical training. May be repeated for a total of 2 units. No prerequisite.
MUS 1630. Basic Class Voice (1)

Introduction to singing and vocal technique, posture, breathing, and tone production. Problems of tension and relaxation. May be repeated for a total of 4 units. No prerequisite.

MUS 2220. Theory III (3)

Continuation of MUS 1230. Emphasis will be on an understanding of 19th century harmonic practice; i.e., utilization of varied seventh and ninth chords, work in advanced modulation procedures, and more sophisticated harmonic progressions. Writing for the keyboard and for other instrumental and vocal combinations will be encouraged. Works from Beethoven through Franck will be analyzed and extensive time will be spent creating original works in conscious imitation of various 19th century styles. To be taken concurrently with MUS 2320. (Formerly 3220) Prerequisite: MUS 1230.

MUS 2230. Theory IV (3)

Continuation of MUS 2220. Completed exploration of tertial harmony; ninth, eleventh, and thirteenth chords. Examination of impressionistic devices, quartal harmony, nontonal and atonal compositional processes. Emphasis upon 20th century Western music. Numerous original compositions required. To be taken concurrently with MUS 2330. (Formerly 3230) Prerequisite: MUS 2220.

MUS 2320. Musicianship Laboratory III (1)

Continuation of MUS 1330. Diatonic and chromatic melodic dictation, four-part choral-style dictation, sightsinging easier standard choral literature, sightsinging in clefs and more advanced rhythmic studies. To be taken concurrently with MUS 2220. Prerequisite: MUS 1330 or equivalent.

MUS 2330. Musicianship Laboratory IV (1)

Continuation of MUS 2320. Two- and three-part contrapuntal dictation; advanced four-part choral-style dictation; sightsinging more advanced choral literature and advanced rhythmic studies. To be taken concurrently with MUS 2230. Prerequisite: MUS 2320 or equivalent.

MUS 2400. Orchestra (1)

The study and performance of standard orchestra music. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.
Music

MUS 2410. Chorale (1)

Study and performance of choral masterworks. Open to all students. A voice test will be given. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisites: Ability to read music and an acceptable singing voice.

MUS 2420. College Choir (1)

A general chorus open to all students. Study of standard choral literature: classical, semi-classical, popular. Field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. No prerequisite.

MUS 2430. Chamber Singers (1)

Study and performance of choral works for small chamber ensemble, including the motets and madrigals of Renaissance and early Baroque composers. Selected works from other musical periods will also be studied and performed; field trips and off-campus performances may be required by the instructor. Student conducting will be encouraged. May be repeated for a total of 8 units. Prerequisites: Ability to read music and consent of instructor.

MUS 2440. Symphonic Wind Ensemble (1)

Study and performance of materials for the wind band, and for various combinations of wind and percussion instruments. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 2480. Jazz Ensemble (1)

Study and performance of materials for the jazz ensemble. Students will participate in jazz concerts and study improvisation; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 2490. Vocal Ensemble (1)

Study and performance of small ensemble literature for two or more voices. This course will from time to time undertake the performance of chamber operas; field trips and off-campus performances may be required by the instructor. Prerequisite: Consent of instructor.
MUS 2500. Brass/Woodwind Chamber Ensemble (1)

Study and performance of materials for small brass and woodwind ensembles. Students will participate in public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. (Formerly 2460 and 2470) Prerequisites: An acceptable degree of performance skill and consent of instructor.

MUS 2610. Intermediate Keyboard (1)

For music majors whose performance medium is a keyboard instrument. Study and performance of representative literature from Baroque to Contemporary. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 2620. Intermediate Class Piano (1)

For general students, music minors, and music majors whose performance area is not piano. Keyboard experience in reading and playing music of intermediate level, such as the Bach inventions, sonatinas, and easier sonatas. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 2630. Intermediate Class Voice (1)

Continuation of MUS 1630. Study of the easier song literature of such composers as Brahms, Schumann, Barber, and others. For general students, music minors, and music majors whose performance medium is not voice. May be repeated for a total of 4 units. Prerequisite: MUS 1630 or consent of instructor.

MUS 2640. Intermediate Voice (1)

Development of expressive singing for solo and ensemble performance. For music majors whose performance medium is voice. May be repeated for a maximum of 6 units. Prerequisite: Consent of instructor.

MUS 2650. Intermediate Class Guitar (1)

A course for the student with a fundamental background in guitar playing. Prerequisite: MUS 1620 or equivalent or consent of instructor.

MUS 2670. Intermediate Orchestral Instruments (1)

Instruction in orchestral instruments: strings, woodwinds, brasses, and percussion. For music majors and minors whose performing medium is in one of these categories. May be repeated for a total of 8 units. Prerequisite: Consent of instructor.

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Music

MUS 2900. Music History and Literature I (3)
A survey of music history and literature spanning antiquity through the Renaissance. Designed primarily for music majors and minors. Prerequisite: Consent of instructor.

MUS 2950. Selected Topics in Music (Topics to be specified in Class Schedule) (1-5)
Development of a selected branch of music. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

MUS 2970. Selected Topics during Winter Term (4)

Upper Division

MUS 3100. Music History and Literature II (3)
A survey of music history and literature spanning the Baroque and Classical periods. (Formerly 2910) Prerequisite: Consent of instructor.

MUS 3200. Music History and Literature III (3)
A survey of music history and literature spanning the Romantic period and the twentieth century. (Formerly 3380) Prerequisite: Consent of instructor.

MUS 3240. Orchestration (2)
The study and application of scoring techniques for small and large ensembles with particular attention to tone colors and combinations of instruments. Prerequisite: MUS 2230 or consent of instructor.

MUS 3250. 18th Century Counterpoint (2)
Counterpoint, based on the harmonic practice of J. S. Bach. Harmonic and formal analysis of Bach's Inventions and selected fugues from the Well-Tempered Clavichord, emphasis on creative writing in contrapuntal two- and three-part forms. Prerequisite: MUS 2230.

MUS 3260. Form and Analysis (2)
Analysis of various types of musical structure including large forms; emphasis on the comparison of styles and the development of an ability to write in various forms. Prerequisite: MUS 2230.

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MUS 3270. Basic Conducting (2)

The study and development of basic elements of conducting and fundamental score reading applicable to both vocal and instrumental ensembles. Prerequisites: Ability to read music and consent of instructor.

MUS 3280. Choral Conducting (2)

A continuation of MUS 3270 with emphasis on performance of standard choral literature. Study and application of the interpretive aspect of conducting. Prerequisites: MUS 3270 and consent of instructor.

MUS 3290. Instrumental Conducting (2)

A continuation of MUS 3270 with emphasis on performance of standard instrumental literature. Study and application of the interpretive aspect of conducting. Prerequisites: MUS 3270 and consent of instructor.

MUS 3340. Music in Elementary School (3)

A study of music experience for children, preschool through sixth grade. (Formerly 3350 and 3360) Prerequisite: MUS 1190 or ability to read music.

MUS 3370. Curriculum and Instruction: Music (3)

Contemporary trends in music education in the secondary school. Curriculum development, selection and organization of materials, and teaching techniques. Prerequisites: Consent of credential adviser and instructor.

MUS 3400. American Music (2)

A comprehensive survey and study of the music of the United States and the contributions of American composers from the American Revolution to the present. Prerequisites: MUS 1000 or equivalent, junior standing.

MUS 3410. History of Jazz (2)

An introduction to jazz with concentration on its evolution and its development in the United States. Prerequisites: MUS 1000 or equivalent, junior standing.

MUS 3450. Piano Literature (2)

Study of selected major piano works of representative master composers from Bach to the present. Discussion of the practical procedures for teaching piano in the smaller works of piano repertoire. Prerequisites: Junior standing and consent of instructor.
Music

MUS 3620. Accompanying (1)

Techniques of accompanying for various performance media. Reading skills are stressed. Students are assigned to work with other student performers or classes. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 3650. String Technique I (1)

Development of basic technique of playing violin and viola. Prerequisite: Consent of instructor.

MUS 3660. String Technique II (1)

Continuation of MUS 3650; emphasis will be on technique of playing cello and double bass. Prerequisite: MUS 3650 or consent of instructor.

MUS 3670. Instrumental Techniques (1)

A four-term sequence covering basic brass, woodwind, and percussion instruments for students planning to enter the teaching credential program and for the music student who wishes to study a secondary musical instrument. May be repeated for a total of 4 units. Prerequisite: Consent of instructor.

MUS 4200. Composition (2)

Composition in various styles, textures, and instrumental and vocal combinations. The nature and scope of projects will be determined by discussion between instructor and student and will be compatible with the student's needs and abilities. Public performance of original works will be encouraged. May be repeated for a total of 8 units. (Formerly 4210 and 4220) Prerequisite: Consent of instructor.

MUS 4400. Orchestra (1)

The study and performance of standard orchestra music. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.
MUS 4410. Chorale (1)

Study and performance of choral masterworks. Open to all students. A voice test will be given. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisites: Ability to read music and an acceptable singing voice.

MUS 4420. College Choir (1)

A general chorus open to all students. Study of standard choral literature: classical, semi-classical, popular. Field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. No prerequisite.

MUS 4430. Chamber Singers (1)

Study and performance of choral works for small chamber ensemble including the motets and madrigals of Renaissance and early Baroque composers. Selected works from other musical periods will also be studied and performed; field trips and off-campus performances may be required by the instructor. Student conducting will be encouraged. May be repeated for a total of 8 units. Prerequisites: Ability to read music and consent of instructor.

MUS 4440. Symphonic Wind Ensemble (1)

Study and performance of materials for the wind band, and for various combinations of wind and percussion instruments. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4480. Jazz Ensemble (1)

Study and performance of materials for the jazz ensemble. Students will participate in jazz concerts and study improvisation; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4490. Vocal Ensemble (1)

Study and performance of small ensemble literature for two or more voices. This course will from time to time undertake the performance of chamber operas; field trips and off-campus performances may be required by the instructor. Prerequisite: Consent of instructor.
Music

MUS 4500. Brass/Woodwind Chamber Ensemble (1)

Study and performance of materials for small brass and woodwind ensembles. Students will participate in all public performances; field trips and off-campus performances may be required by the instructor. May be repeated for a total of 8 units. (Formerly 4460 and 4470) Prerequisites: An acceptable degree of performance skill and consent of instructor.

MUS 4550. Instrumental Literature Seminar (3)

Study of literature for orchestra, band, chamber groups, and solo playing, elementary through advanced levels. Attention given to both class and private instructional needs. Prerequisite: Consent of instructor.

MUS 4570. Vocal/Choral Literature Seminar (3)

A comprehensive survey of vocal music suitable for large and small choral organizations; music for madrigal groups and glee clubs, plus solo material for various vocal categories. Prerequisite: Consent of instructor.

MUS 4610. Advanced Keyboard (1)

For music majors whose performance medium is a keyboard instrument. Study and performance of advanced repertoire with emphasis upon development of style and interpretation as well as technique. May be repeated for a total of 8 units. Prerequisite: Successful completion of junior-level performance examination and consent of instructor.

MUS 4640. Advanced Voice (1)

Vocal technique for the advanced student; study of German lieder, French and Italian repertoire, and solo material in cantata, oratorio, and opera. For music majors whose performance medium is voice. May be repeated for a total of 8 units. Prerequisite: Successful completion of junior-level performance examination.

MUS 4670. Advanced Orchestral Instruments (1)

Advanced instruction in orchestral instruments: strings, woodwinds, brasses, and percussion. For music majors whose performance medium is in one of these categories. May be repeated for a total of 8 units. Prerequisite: Successful completion of junior-level performance examination.

MUS 4950. Selected Topics in Music (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of music. Topics may vary.
each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

MUS 4960. Senior Seminar (4)

Individual research in specific problems; emphasis on introduction to musicology. A comprehensive examination and research paper are part of completion of the course. Prerequisites: Senior standing and consent of instructor.

MUS 4970. Selected Topics during Winter Term (4)

MUS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
Nursing
Jacqueline B. Johnson, M.S., Professor, Chair
Mary Ellen Simmons, M.S., Associate Professor
June Boffman, M.S., Assistant Professor

The Department of Nursing offers the Bachelor of Science, Nursing. The purpose of the upper division nursing major is to provide diploma and associate degree graduates with the broadened educational base necessary for professional practice and for pursuing graduate education in nursing. The program is designed to enable nurses to expand their scope of practice, to function both independently and interdependently with other health care professionals in a wide variety of settings, and to assume greater responsibility in meeting present and future health care needs of society.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE, NURSING

Nursing majors are to:

1. Complete requirements for the Bachelor of Science degree.
2. Complete the major of 34 upper division units. No CR-graded nursing course work will be accepted.
3. Complete 9 units of upper division electives in related fields on advisement (determined by student's professional goals).

Completion of a minor is not required.

MINIMUM ADMISSION REQUIREMENTS TO THE UPPER DIVISION NURSING MAJOR:

1. Have completed 60 semester units of baccalaureate-level transferable college credit.
2. Have completed 30 semester units of basic registered nursing course work.
3. Have completed at least half of the College's 40 unit General Education breadth requirement, including completion of ENGL 1000 or equivalent.
4. Have completed an acceptable college level Chemistry course of at least 3 semester units with a grade of "C" or better.
5. Have completed an acceptable college-level Human Anatomy and Physiology course(s) of at least 5 semester units with a grade of "C" or better.
6. Have a current license as a Registered Nurse in California.
7. Have a minimum of one year's experience working as a Registered Nurse.
8. Achieve at least the 45th percentile on National League for Nursing Achievement Tests in Maternal-Child, Medical-Surgical and Psychiatric nursing.
9. File an application to the College.
10. File an application to the Department of Nursing.

By the time classes begin in the Fall semester, students who are admitted to the nursing major must have individual professional
Nursing malpractice insurance in force. The minimum coverages must be at least $200,000 each claim and $500,000 aggregate per year.

The College reserves the right to limit the enrollment of students in the nursing major to available space and clinical facilities. All nursing courses except those with a clinical component are open to Registered Nurses not admitted to the nursing major, subject to availability of space and consent of instructor.

CONTINUANCE IN THE NURSING MAJOR

Students must maintain a minimum grade of "C" in courses constituting the nursing major. No CR-graded nursing course work will be accepted.

With Department approval, a student may repeat a nursing course. However, if class enrollment is limited, priority will be given to those students in regular progression in the program. When a student is allowed to repeat a nursing course, a grade of "C" or better must be earned to remain in the program.

DEGREE MAJOR IN NURSING

<table>
<thead>
<tr>
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<td>NURS 3000</td>
<td>Health Assessment</td>
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<tr>
<td>NURS 3100</td>
<td>Health Teaching</td>
<td>2</td>
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<tr>
<td>NURS 3200</td>
<td>Science Applied to Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3300, 3310</td>
<td>Dynamics of Nursing Leadership I, II</td>
<td>6</td>
</tr>
<tr>
<td>NURS 3400</td>
<td>Community Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3410</td>
<td>Community Health Nursing Practicum</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4000</td>
<td>Issues Facing the Profession</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4100</td>
<td>Introduction to Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4200, 4300</td>
<td>Advanced Clinical Nursing I, II</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4210, 4310</td>
<td>Advanced Clinical Nursing Practicum I, II</td>
<td>6</td>
</tr>
</tbody>
</table>

Total: 34 units

To complete major requirements, a student must fulfill 9 units of upper division electives in a related field on advisement (determined by student's professional goals).

Those students expecting to pursue graduate education in nursing should take Statistics as one of their electives, since it is required for admission.

TYPICAL STUDENT PROGRAM

<table>
<thead>
<tr>
<th>Junior Year</th>
<th>Winter Term</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
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<tr>
<td>NURS 3000</td>
<td>(3)</td>
<td>NURS 3310 (3)</td>
</tr>
<tr>
<td>NURS 3100</td>
<td>(2)</td>
<td>NURS 3400 (3)</td>
</tr>
<tr>
<td>NURS 3200</td>
<td>(3)</td>
<td>NURS 3410 (4)</td>
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<tr>
<td>NURS 3300</td>
<td>(3)</td>
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366
Professor: Nursing

<table>
<thead>
<tr>
<th>Senior Year</th>
<th>Winter Term</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURS 4000 (2)</td>
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<td>NURS 4100 (3)</td>
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<tr>
<td>NURS 4200 (1)</td>
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<td>NURS 4300 (1)</td>
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<td>NURS 4210 (3)</td>
<td>Electives</td>
<td>NURS 4310 (3)</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>Electives</td>
</tr>
</tbody>
</table>

**COURSE DESCRIPTIONS**

**Upper Division**

**NURS 3000. Health Assessment (3)**

Assists the student in assuming new responsibilities for determining health status of individuals. Focus is on history taking and physical examination. (Lecture, 2 hours; laboratory, 3 hours)

**NURS 3100. Health Teaching (2)**

Basic principles of teaching, learning, and measurement. Includes theories of learning, behavioral objectives, teaching strategies relevant to nursing and test construction. (Lecture, 2 hours)

**NURS 3200. Science Applied to Nursing (3)**

Advanced and updated concepts of physiology and pathophysiology applied to nursing. Focus is upon scientific principles and physiological interpretation of signs and symptoms. (Lecture, 3 hours)

**NURS 3300. Dynamics of Nursing Leadership I (3)**

Identification and practice of communication skills and theories of group dynamics applied to nursing. Small groups are used as a basis for increasing self awareness and understanding of others in one-to-one and small group interaction. Identification and discussion of nursing leadership role, styles and qualities. (Lecture, 3 hours)

**NURS 3310. Dynamics of Nursing Leadership II (3)**

Continuation of NURS 3300. Focus shifts to broader leadership role of nursing. Identification of problems of administration in institutions and agencies. (Lecture, 3 hours) Prerequisite: NURS 3300.
Nursing

NURS 3400. Community Health Nursing (3)

Theory and principles applied to the nursing role in promotion of health and prevention of disease. Beginning focus is on the family unit and then shifts to broader community-based problems of delivery of health care services. (Lecture, 3 hours) Concurrent registration in NURS 3410 is required.

NURS 3410. Community Health Nursing Practicum (4)

Clinical experience in a variety of community health agencies under the leadership of nursing faculty. (Laboratory, 12 hours) Concurrent registration in NURS 3400 is required. Prerequisites: Completion of or concurrent enrollment in NURS 3000, 3100, 3200, 3300, 3310, nursing liability insurance, current California driver's license, consent of instructor.

NURS 4000. Issues Facing the Profession (2)

Examines issues central to the profession of nursing. Students will study historical perspectives and make proposals for future direction of nursing. Advocacy and socio-political awareness for nurses is stressed. (Lecture, 2 hours) Prerequisite: Senior standing in the nursing major or consent of instructor.

NURS 4100. Introduction to Nursing Research (3)

Introduction to basic concepts of nursing research. Emphasis on evaluating research and application of findings in nursing practice. (Lecture, 3 hours) Prerequisite: Senior standing in the nursing major or consent of instructor.

NURS 4200. Advanced Clinical Nursing I (1)

Theory and principles of change applied to nursing. Includes factors that assist or inhibit efforts to effect change. Problems encountered in trying to bring about change in nursing will be discussed and alternative solutions explored. (Seminar, 1 hour) Concurrent registration in NURS 4210 is required.

NURS 4210. Advanced Clinical Nursing Practicum I (3)

Student-designed study focusing on an area of clinical practice of their choice. This is an opportunity for students to explore new areas of practice under the guidance of nursing faculty and community-based preceptors. (Laboratory, 9 hours) Concurrent registration in NURS 4200 is required. Prerequisites: Nursing liability insurance, current California driver's license, senior standing in nursing program or consent of instructor.
NURS 4300. Advanced Clinical Nursing II (1)

Continuation of NURS 4200. (Seminar, 1 hour) Concurrent registration in NURS 4310 is required.

NURS 4310. Advanced Clinical Nursing Practicum II (3)

Continuation of NURS 4210. (Laboratory, 9 hours) Concurrent registration in NURS 4300 is required. Prerequisites: Nursing liability insurance, current California driver's license, senior standing in nursing program or consent of instructor.

NURS 4950. Selected Topics in Nursing (1-5) (Topics to be specified in Class Schedule)

Development of a selected topic or a set of related topics in nursing. Topics vary each term, thus different topics may be taken for credit to a maximum of 12 units. Prerequisite: Consent of instructor.

NURS 4960. Senior Seminar (1-4)

Seminar for seniors in nursing. Review and discussion of selected topics in nursing. Each student is expected to report on an individual project. Prerequisite: Consent of instructor.

NURS 4970. Selected Topics during Winter Term (4)

NURS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

NURS 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
Philosophy

William H. Hayes, Ph.D., Professor

Philosophy's subject matter is the critical analysis of, and rational reflection on, persistent human problems of knowledge, of existence, of conduct, of art, and of religion. Courses offered present both the analytical and speculative aspects of philosophy, including as they do study of outstanding historical and contemporary philosophical statements, as well as practice of the analytical and argumentative techniques needed to discern, formulate, and defend philosophical principles of one's own.

The curriculum in philosophy is conceived as contributing to broad, general education in the liberal arts. It can provide for any student an adequate component of philosophy whether pursued as a supplement to major studies, undergraduate or graduate, or for the values of philosophy itself.

**DEGREE MINOR IN PHILOSOPHY**

Fifteen units, including nine in upper division courses, distributed as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1010. Introduction to Philosophy, 3 units</td>
<td></td>
</tr>
<tr>
<td>or PHIL 1100. Logic, 3 units</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2200. Ancient Greek Philosophy, 3 units</td>
<td></td>
</tr>
<tr>
<td>or PHIL 2230. Seventeenth &amp; Eighteenth Century Philosophy, 3 units</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3300. Theory of Knowledge, 4 units</td>
<td></td>
</tr>
<tr>
<td>or PHIL 3400. Ethics, 4 units</td>
<td></td>
</tr>
<tr>
<td>or HIST 3890. The Oriental Mind, 4 units</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 4250. Recent &amp; Contemporary Philosophy, 4 units</td>
<td></td>
</tr>
<tr>
<td>or PHIL 4450. Philosophy of Religion, 4 units</td>
<td></td>
</tr>
<tr>
<td>or PHIL 4500. Aesthetics, 4 units</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 4980. Individual Study</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
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</tbody>
</table>

**LIBERAL STUDIES CONCENTRATION IN PHILOSOPHY**

Twenty-two units distributed as follows:

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>*PHIL 1010. Introduction to Philosophy, 3 units</td>
<td>3</td>
</tr>
<tr>
<td>or *PHIL 1100. Logic, 3 units</td>
<td></td>
</tr>
</tbody>
</table>

* May not apply toward the concentration if used to satisfy Liberal Studies Area C requirements.
### Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>PHIL 2200</td>
<td>Ancient Greek Philosophy, 3 units</td>
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</tr>
<tr>
<td>OR PHIL 2230</td>
<td>Seventeenth &amp; Eighteenth Century Philosophy, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHIL 3300</td>
<td>Theory of Knowledge, 4 units</td>
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</tr>
<tr>
<td>OR PHIL 3400</td>
<td>Ethics, 4 units</td>
<td></td>
</tr>
<tr>
<td>OR HIST 3890</td>
<td>The Oriental Mind, 4 units</td>
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</tr>
<tr>
<td>PHIL 4250</td>
<td>Recent &amp; Contemporary Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 4450</td>
<td>Philosophy of Religion</td>
<td></td>
</tr>
<tr>
<td>PHIL 4500</td>
<td>Aesthetics</td>
<td></td>
</tr>
</tbody>
</table>

Total: 22 units

### Course Description

#### Lower Division

**PHIL 1000. Reasoning (3)**

A study of reasoning with emphasis on the natural language. Course aims to develop and improve skills and critical attitudes needed to analyze and evaluate the kinds of arguments and persuasive techniques encountered in everyday life. Course orientation is practical, not theoretical.

**PHIL 1010. Introduction to Philosophy (3)**

Introduction to philosophical method by examining traditional and contemporary philosophical problems.

**PHIL 1100. Logic (3)**

Analysis of the methods and principles of deductive reasoning, including traditional logic; introduction to symbolic logic and to inductive argument.

**PHIL 2200. Ancient Greek Philosophy (3)**

A general survey of the history of Western philosophy from the pre-Socratic to the end of the Classical Period.

**PHIL 2230. Seventeenth & Eighteenth Century Philosophy (3)**

A general survey of the history of Western philosophy from the Renaissance through the Eighteenth Century.

**PHIL 2400. Contemporary Moral Problems (3)**

An examination of social issues such as, racial and sexual discrimination, civil disobedience, war, abortion, law and morals, business and professional ethics, morals and the environment, and ethical problems that result from recent advances in medicine and
Philosophy

biology. An effort will be made to discern the way in which fundamental ethical problems are manifested in these contemporary, practical problems.

PHIL 2950. Selected Topics in Philosophy (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in philosophy. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHIL 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHIL 3000. Humanistic Inquiry (3)

Nature and interrelationships of the humanistic disciplines, including the performing and creative arts, and their relations with the natural and social sciences. Prerequisite: At least one course in each of three of the following fields: art, drama, foreign languages and literature, music, philosophy.

PHIL 3010. Classics of Western Philosophy (3)

Introduction to the history, methods, and problems of philosophy. Not open to lower division students nor to students with previous coursework in philosophy. A student who wishes to begin a minor or concentration in philosophy at the upper division level may substitute this course for lower division coursework in philosophy.

PHIL 3100. Philosophical Analysis (4)

The purpose of this course is to develop students' abilities to read perceptively and to write clearly. Students will develop familiarity with the language and techniques of analytic philosophy and with techniques which they can use to reach defensible conclusions about concepts and beliefs that are basic to science, religion and ethics. The emphasis in this class will be on intellectual tools, developing and improving "the instruments of the mind." Prerequisites: 3 units of philosophy and upper division standing.

PHIL 3300. Theory of Knowledge (4)

Analysis of the concepts of knowledge, truth, belief, evidence, certainty; readings in classical and contemporary theories. Prerequisites: 3 units in philosophy and upper division standing.
PHIL 3400. Ethics (4)

Analysis of the concepts of right and wrong, good and bad, utility and duty, freedom, obligation, responsibility; readings in classical and contemporary theories. Prerequisites: 3 units in philosophy and upper division standing.

PHIL 3410. Philosophy of Law (4)

A study of problems and controversies in connection with the nature of law and its bearing on human conduct.

PHIL 4250. Recent and Contemporary Philosophy (4)

A general survey of the history of Western philosophy from the end of the Enlightenment to the present day. Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4410. Punishment and Responsibility (4)

An examination of problems relevant to the practice of punishment and determinations of responsibility: the aim and justification of punishment, the specific conditions of responsibility. The analysis of the concepts of "punishment," "responsibility," "retribution," "guilt," "shame," etc.

PHIL 4450. Philosophy of Religion (4)

Analysis of religious concepts with emphasis on the logic of religious discourse. Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4500. Aesthetics (4)

Philosophy of art; analysis of aesthetic experience; principles of criticism. Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4950. Selected Topics in Philosophy

(Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in philosophy. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHIL 4970. Selected Topics offered during Winter Term (4)
PHIL 4980. Individual Study (1-4)

For undergraduate students prepared for independent study to supplement regular course offerings. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHIL 5980. Individual Study (1-4)

For postbaccalaureate students prepared for independent work, and in need of advanced and specialized study in philosophy. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
Physical Education and Health

James K. Hanný, Ed.D., Professor, Chair
Richard D. Conant, Ph.D., Professor
Zaki I. Habashi, Ed.D., Professor
James C. Bowen, Ph.D., Associate Professor
William M. Morris, Ed.D., Associate Professor
Wayne E. Nelson, Ed.D., Associate Professor
Martha M. Seban, M.S., Associate Professor
Patricia Childress, M.A., Instructor
Albert W. Biancani, Ed.D., Coach

The Department of Physical Education and Health offers the degree Bachelor of Arts, Physical Education; the Bachelor of Arts degree, Physical Education, with a concentration in Recreation; and a Single Subject Waiver program in Physical Education. Courses are designed to provide a background in physical education for those planning to enter the teaching field, an educational foundation for those planning to undertake graduate work or a program for preprofessional work.

REQUIREMENTS FOR THE BACHELOR OF ARTS, PHYSICAL EDUCATION

Physical education majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the prerequisites to the major including required courses in related fields.
3. Complete the major of not less than 38 upper division units; of these no more than 8 units of Winter Term CR-graded course work may apply toward the major.
4. Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.

Completion of a minor is not required.

DEGREE MAJOR IN PHYSICAL EDUCATION

Prerequisites to the Major:

The following courses, which are among the choices applicable to the general education requirements, are required for physical education majors.

Biol 1010. Principles of Biology (lec & Lab), 4 units
or Zool 1050. Introduction to Zoology, 4 units
Hlth 1000. Health in Today's Society, 1 unit
Phed 1000. Physical Education Activity, 1 unit
Physical Education and Health

Required courses in related fields:
- ZOOL 2230. Physiology (Lec), 3 units
- ZOOL 2240. Physiology (Lab), 1 unit
- ZOOL 2250. Human Anatomy (Lec & Lab), 3 units

The Major

Required courses in major field:

Group One: All courses required
- PHED 3100. Foundations, History, & Philosophy of Physical Education, 3 units
- PHED 4100. Curriculum Organization & Administration of Physical Education, 3 units
- PHED 4200. Motor Learning, 3 units
- PHED 4300. Measurement & Evaluation in Physical Education, 3 units
- PHED 4400. Kinesiology, 3 units
- PHED 4500. Physiology of Exercise, 3 units

Group Two: Eight units from the following—not more than two units chosen from PHED 2100-2130...
- PHED 2100-2130. Sports Officiating, 1 unit each
- PHED 3400. Elementary Physical Education, 3 units
- PHED 3600. Intramural Programs, 2 units
- PHED 3700. Sport in Society, 3 units
- PHED 3800. Adapted Physical Education, 3 units
- HLTH 2200. School Health & Safety, 2 units
- HLTH 3000. Prevention & Care of Athletic Injuries, 2 units
- REC 3200. Community Recreation, 2 units

Group Three: Four units from the following...
- PHED 3200. Theory of Coaching Football, 2 units
- PHED 3210. Theory of Coaching Basketball, 2 units
- PHED 3220. Theory of Coaching Baseball, 2 units
- PHED 3230. Theory of Coaching Track & Field, 2 units
- PHED 3240. Theory of Coaching Volleyball, 2 units

Group Four: Eight units from the following...
- PHED 3300. Theory & Analysis of Aquatic Sports, 2 units
- PHED 3310. Theory & Analysis of Combative Activities, 2 units
- PHED 3320. Theory & Analysis of Dance, 2 units
- PHED 3330. Theory & Analysis of Golf & Archery, 2 units
- PHED 3340. Theory & Analysis of Gymnastics, 2 units
- PHED 3350. Theory & Analysis of Racquet Sports, 2 units
- PHED 3360. Theory & Analysis of Team Sports, 2 units

Total: 38 units
Physical Education and Health

REQUIREMENTS FOR THE BACHELOR OF ARTS, PHYSICAL EDUCATION, WITH A CONCENTRATION IN RECREATION

Physical education majors are to:

1. Complete the requirements for the Bachelor Arts degree.
2. Complete the prerequisites to the major including required courses in related fields.
3. Complete the major of not less than 38 upper division units; of these no more than 8 units of Winter Term CR-graded course work may apply toward the major.
4. Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.

Completion of a minor is not required.

DEGREE MAJOR IN PHYSICAL EDUCATION WITH A CONCENTRATION IN RECREATION

Prerequisites to the Major:

The following courses, which are among the choices applicable to the general education requirement, are required for physical education majors:

**BiOL 1010. Principles of Biology, 4 units**
**or ZOOL 1050. Introduction to Zoology, 4 units**
**HLTH 1000. Health in Today's Society, 1 unit**
**PHED 1000. Physical Education Activity, 1 unit**

Required courses in related fields:

**PSYC 2010. Introduction to Psychology, 3 units**
**SOCL 1010. Introduction to Sociology, 3 units**

Required Courses:

<table>
<thead>
<tr>
<th>Group One:</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PHED 3100. Foundations, History, and Philosophy of Physical Education, 3 units</td>
<td>15</td>
</tr>
<tr>
<td>PHED 3700. Sport in Society, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHED 4100. Curriculum, Organization, and Administration of Physical Education, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHED 4200. Motor Learning, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHED 4300. Measurement and Evaluation of Physical Education, 3 units</td>
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</table>

<table>
<thead>
<tr>
<th>Group Two:</th>
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</thead>
<tbody>
<tr>
<td>REC 2100. Introduction to Recreation, 1 unit</td>
<td>10</td>
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<tr>
<td>REC 3100. Recreation Leadership Analysis, 3 units</td>
<td></td>
</tr>
<tr>
<td>REC 3200. Community Recreation, 3 units</td>
<td></td>
</tr>
<tr>
<td>REC 3300. Recreation Administration, 3 units</td>
<td></td>
</tr>
</tbody>
</table>
Physical Education and Health

Group Three: ........................................... 8

EDUC 4210. Outdoor Education, 2 units
PHED 2100-2130. Sports Officiating, 1 unit
PHED 3400. Elementary Physical Education, 3 units
PHED 3600. Intramural Programs, 2 units
PHED 3800. Adapted Physical Education, 3 units
PHED 4400. Kinesiology, 3 units
PHED 4500. Physiology of Exercise, 3 units

Group Four: ............................................. 5

REC 4900. Field Work:
  Pre-School, 1 unit
  Youth, 1 unit
  Teens, 1 unit
  Special Events, 1 unit
  Sports Directing, 1 unit
  Aquatics, 1 unit
  Therapeutic, 2 units
    Mentally Handicapped, 1 unit
    Physically Handicapped, 1 unit
  Administrative Internship, 3 units

Total .................................................. 38

NOTE: This major does not qualify the candidate for admittance to the Credential Program in Physical Education.

TEACHING CREDENTIALS

REQUIREMENTS FOR THE SINGLE SUBJECT WAIVER PROGRAM, PHYSICAL EDUCATION (Teacher Preparation & Licensing Law of 1970, Ryan Bill)

The course requirements needed to meet the Physical Education Single Subject Waiver program are presented below. Please refer to the Education section of the catalog for a description of other requirements.

Prerequisites to the waiver:

  BIOL 1010. Principles of Biology, 4 units
  or ZOOL 1050. Introduction to Zoology, 4 units
  HLTH 1000. Health in Today's Society, 1 unit
  PHED 1000. Physical Education Activity, 1 unit

THE WAIVER:

Required courses in related fields:

  ZOOL 2230. Physiology (Lec), 3 units
  ZOOL 2240. Physiology (Lab), 1 unit
  ZOOL 2250. Human Anatomy, 3 units

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**Physical Education and Health**

Required courses in physical education and health:

<table>
<thead>
<tr>
<th>Group One: All courses required</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED 3100. Foundations, History, &amp; Philosophy of Physical Education, 3 units</td>
<td>18</td>
</tr>
<tr>
<td>PHED 4100. Curriculum, Organization, and Administration of Physical Education, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHED 4200. Motor Learning, 3 units</td>
<td></td>
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<tr>
<td>PHED 4300. Measurement and Evaluation in Physical Education, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHED 4400. Kinesiology, 3 units</td>
<td></td>
</tr>
<tr>
<td>PHED 4500. Physiology of Exercise, 3 units</td>
<td></td>
</tr>
</tbody>
</table>

| Group Two: | |
| HLTH 3000. Prevention and Care of Athletic Injuries, 2 units | 8 |
| PHED 3400. Elementary Physical Education, 3 units | |
| PHED 3700. Sociology of Sport, 3 units | |

| Group Three: |
| No coaching classes are required for the waiver, but four units are required for the major. |

| Group Four: Twelve units from the following: | 12 |
| PHED 3300. Theory and Analysis of Aquatic Sports, 2 units | |
| PHED 3310. Theory and Analysis of Combative Activities, 2 units | |
| PHED 3320. Theory and Analysis of Dance, 3 units | |
| PHED 3330. Theory and Analysis of Golf/Archery, 2 units | |
| OR PHED 3350. Theory and Analysis of Racquet Sports, 2 units | |
| PHED 3340. Theory and Analysis of Gymnastics, 2 units | |
| PHED 3360. Theory and Analysis of Team Sports, 2 units | |
| Total | 38 |
Physical Education and Health

DEGREE MINOR IN PHYSICAL EDUCATION

Twenty units approved by the minor adviser, 16 of which must be upper division units.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 3000. Prevention &amp; Care of Athletic Injuries</td>
<td>2</td>
</tr>
<tr>
<td>Courses from Group One of Major Program</td>
<td>6</td>
</tr>
<tr>
<td>Courses from Group Two of Major Program</td>
<td>4</td>
</tr>
<tr>
<td>Courses from Group Three of Major Program</td>
<td>4</td>
</tr>
<tr>
<td>Courses from Group Four of Major Program</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

DEGREE MINOR IN RECREATION

Twenty-three units, to include at least 21 units in upper division.

Group one: Introduction to Recreation, 1 unit

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>REC 2100. Introduction to Recreation</td>
<td>1</td>
</tr>
<tr>
<td>REC 3100. Recreation Leadership Analysis</td>
<td>3</td>
</tr>
<tr>
<td>REC 3200. Community Recreation</td>
<td>3</td>
</tr>
<tr>
<td>REC 3300. Recreation Administration</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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Group Two: Outdoor Education, 2 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 4210. Outdoor Education</td>
<td>2</td>
</tr>
<tr>
<td>PHED 2100. Sports Officiating</td>
<td>1</td>
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<tr>
<td>PHED 3460. Elementary Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PHED 3600. Intramural Programs</td>
<td>2</td>
</tr>
<tr>
<td>PHED 3800. Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PHED 4400. Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>PHED 4500. Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
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Group Three: Field Work

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>REC 4900. Field Work</td>
<td>1</td>
</tr>
<tr>
<td>Pre-school, 1 unit</td>
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</tr>
<tr>
<td>Youth, 1 unit</td>
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<tr>
<td>Teens, 1 unit</td>
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<tr>
<td>Special Events, 1 unit</td>
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<tr>
<td>Sports Directing, 1 unit</td>
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</tr>
<tr>
<td>Aquatics, 1 unit</td>
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</tr>
<tr>
<td>Therapeutic, 1 unit</td>
<td></td>
</tr>
<tr>
<td>Mentally Handicapped, 1 unit</td>
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<tr>
<td>Physically Handicapped, 1 unit</td>
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</tr>
<tr>
<td>Administrative Internship, 3 units</td>
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<tr>
<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>REC 4900. Field Work</td>
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<tr>
<td>Mentally Handicapped, 1 unit</td>
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<tr>
<td>Physically Handicapped, 1 unit</td>
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<tr>
<td>Administrative Internship, 3 units</td>
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<td><strong>Total</strong></td>
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LIBERAL STUDIES CONCENTRATION IN PHYSICAL EDUCATION

Twenty units, including at least 15 upper division units.

Required courses:

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<tr>
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED 3700</td>
<td>Sport in Society</td>
<td>3</td>
</tr>
<tr>
<td>PHED 4200</td>
<td>Motor Learning</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Courses from Group One</td>
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<td></td>
<td>and Group Two of Major</td>
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<tr>
<td></td>
<td>Program, minimum</td>
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<td></td>
<td>Courses from Group Three</td>
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<td></td>
<td>of Major Program, minimum</td>
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<td></td>
<td>Courses from Group Four</td>
<td>6</td>
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<tr>
<td></td>
<td>of Major Program, minimum</td>
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<tr>
<td></td>
<td>Elective units from any</td>
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<tr>
<td></td>
<td>of the four areas</td>
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</table>

Total 20

TEACHING CREDENTIALS

Majors in Physical Education interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

ACTIVITY COURSES

All activity courses meet 2 hours per week, have no prerequisites, may not be repeated for credit, and are graded on a CR/NC basis.

CREDIT BY EXAMINATION:

Activity courses may be challenged by passing a proficiency test and written examination.

FITNESS & CONDITIONING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHED 1010</td>
<td>Backpacking</td>
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<tr>
<td>PHED 1020</td>
<td>Yoga</td>
</tr>
<tr>
<td>PHED 1030</td>
<td>Cycling</td>
</tr>
<tr>
<td>PHED 1050</td>
<td>Jogging/Aerobics</td>
</tr>
<tr>
<td>PHED 1060</td>
<td>Ski Conditioning</td>
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<tr>
<td>PHED 1070</td>
<td>Judo</td>
</tr>
<tr>
<td>PHED 1080</td>
<td>Karate</td>
</tr>
<tr>
<td>PHED 1090</td>
<td>Intermediate Karate</td>
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<tr>
<td>PHED 1110</td>
<td>Personal Defense</td>
</tr>
<tr>
<td>PHED 1120</td>
<td>Individualized Fitness</td>
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<tr>
<td>PHED 1130</td>
<td>Weight Training</td>
</tr>
<tr>
<td>PHED 1150</td>
<td>Wrestling</td>
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INDIVIDUAL & DUAL SPORTS

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<tbody>
<tr>
<td>PHED 1200</td>
<td>Archery</td>
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<td>Advanced Archery</td>
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<tr>
<td>PHED 1230</td>
<td>Badminton</td>
</tr>
<tr>
<td>PHED 1250</td>
<td>Advanced Badminton</td>
</tr>
<tr>
<td>PHED 1260</td>
<td>Bowling</td>
</tr>
<tr>
<td>PHED 1280</td>
<td>Advanced Bowling</td>
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<tr>
<td>PHED 1290</td>
<td>Canoeing</td>
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<tr>
<td>PHED 1300</td>
<td>Fencing</td>
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<td>PHED 1320</td>
<td>Advanced Fencing</td>
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<td>PHED 1330</td>
<td>Golf</td>
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<td>PHED 1350</td>
<td>Advanced Golf</td>
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<tr>
<td>PHED 1360</td>
<td>Gymnastics</td>
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<tr>
<td>PHED 1380</td>
<td>Advanced Gymnastics</td>
</tr>
<tr>
<td>PHED 1400</td>
<td>Handball</td>
</tr>
<tr>
<td>PHED 1420</td>
<td>Racquet Ball</td>
</tr>
<tr>
<td>PHED 1450</td>
<td>Skiing</td>
</tr>
<tr>
<td>PHED 1480</td>
<td>Tennis</td>
</tr>
<tr>
<td>PHED 1490</td>
<td>Intermediate Tennis</td>
</tr>
</tbody>
</table>
Physical Education and Health

ACTIVITY COURSES - Continued

TEAM SPORTS

PHED 1700. Baseball  PHED 1700. Advanced Baseball  PHED 1500. Advanced Tennis
PHED 1720. Advanced Baseball  PHED 1510. Casting & Angling
PHED 1740. Basketball (M)  AQUATICS
PHED 1770. Basketball (W)  PHED 1620. Intermediate Swimming
PHED 1780. Field Hockey  PHED 1630. Advanced Swimming
PHED 1790. Adv. Basketball (W)  PHED 1640. Life Saving
PHED 1800. Adv. Field Hockey
PHED 1810. Team Handball
PHED 1820. Soccer
PHED 1840. Advanced Soccer
PHED 1850. Softball  PHED 1900. Ballet
PHED 1860. Track  PHED 1920. Modern Dance
PHED 1870. Volleyball  PHED 1930. Intermediate Modern Dance
PHED 1880. Intermediate Volleyball  PHED 1940. Advanced Modern Dance
PHED 1890. Advanced Volleyball  PHED 1950. Social Dance
PHED 1500. Advanced Tennis

PHED 1800. Field Hockey
PHED 1810. Team Handball
PHED 1820. Soccer
PHED 1840. Advanced Soccer
PHED 1850. Softball
PHED 1860. Track
PHED 1870. Volleyball
PHED 1880. Intermediate Volleyball
PHED 1890. Advanced Volleyball

COURSE DESCRIPTIONS

Lower Division

PHED 2100-2130. Sports Officiating (1)

The study and interpretation of rules for various sports; procedures, mechanics, and practice in officiating. PHED 2100, Football; PHED 2110, Basketball; PHED 2120, Baseball; PHED 2130, Track and Field.

PHED 2500-2590. Intercollegiate Athletics (1)

Theory, practice, and game performance of competitive intercollegiate athletics. Limited to students trying out for the varsity or freshman-junior varsity teams. May be repeated for credit. PHED 2500, Baseball; PHED 2510, Basketball (M); PHED 2520, Cross Country; PHED 2530, Golf; PHED 2540, Tennis (M); PHED 2550, Tennis (W); PHED 2560, Track and Field; PHED 2570, Volleyball; PHED 2580, Basketball (W); PHED 2590, Wrestling. Prerequisite: Consent of instructor.

PHED 2950. Selected Topics in Physical Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical education. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHED 2970. Selected Topics offered during Winter Term (4)
PHED 3100. Foundations, History, and Philosophy of Physical Education (3)

Historical factors and forces guiding the development of physical education; objectives of current physical education and its contribution to the full development of man; development of professional understanding and attitude. Philosophical thoughts guiding the development of physical education from ancient time to modern time.

PHED 3200-3240. Theory of Coaching (2)

Principle and coaching techniques underlying participation in competitive interscholastic athletics. (Lecture, 1 hour; laboratory, 2 hours) PHED 3200, Football; PHED 3210, Basketball; PHED 3220, Baseball; PHED 3230, Track and Field; PHED 3240, Volleyball. Prerequisite: Limited to physical education majors and minors, or consent of instructor.

PHED 3300-3360. Theory and Analysis of Physical Education Activities (2)

Development of fundamental skills and special abilities applicable to specific areas. A study of competencies and knowledge needed for teaching and organization. Rules and field experience in game strategy, tactics, and evaluation techniques. (Two 2-hour laboratories) PHED 3300, Aquatic Sports; PHED 3310, Combative Activities; PHED 3320, Dance; PHED 3330, Golf/Athletics; PHED 3340, Gymnastics; PHED 3350, Racquet Sports; PHED 3360, Team Sports. Prerequisite: Limited to physical education majors and minors or consent of instructor.

PHED 3400. Elementary School Physical Education (3)

The scope and values of physical education and movement education in the elementary school. Program development, methods, materials, and practice in teaching activities for primary, intermediate, and upper grades. (Lecture, 2 hours; laboratory, 3 hours)

PHED 3600. Intramural Programs (2)

The organization, administration, and motivation of intramural activities for schools including practical field experience.

PHED 3700. Sport in Society (3)

Introduction to the theoretical study of sport and its relationship to culture and society; investigation and analysis of literature that is concerned with the individual and his involvement in play, game, and sport.
PHED 3800. Adapted Physical Education (3)

The nature of specific handicaps which occur in students, the ways in which physical education activities are modified to meet the movement needs of handicapped students, and the laws of the State of California which have implications for the physical education program for handicapped students. ZOOL 2250 is recommended. (Lecture, 2 hours; laboratory, 3 hours)

PHED 4100. Curriculum Organization, Administration and Instruction of Physical Education (3)


PHED 4200. Motor Learning (3)

The application of psychological factors relating to the acquisition or performance of perceptual-motor skills. Emphasis upon the structure and function of the nervous system with specific reference to adaptive motor control. Includes an examination of the neurological integration involved in the maintenance of posture, orientation in space, and patterning of voluntary movement.

PHED 4300. Measurement and Evaluation in Physical Education (3)

A study of practical measurements for evaluation in physical education with emphasis on fitness and sports skills. Prerequisite: Junior standing.

PHED 4400. Kinesiology (3)

A study of anatomical structure and mechanical principles applied to human movement. Analysis of motor skills related to physical education activities. (Lecture, 2 hours; laboratory, 3 hours) Prerequisites: ZOOL 2250 and junior standing. PHYS 1500 is recommended.

PHED 4500. Physiology of Exercise (3)

Study of different body systems and the effects of exercise on each system and physical performance. (Lecture, 2 hours; laboratory, 3 hours) Prerequisites: ZOOL 2230, 2240, and junior standing. CHEM 1000 is recommended.
PHED 4900. Field Work or Practicum in Physical Education (1)

Field work is designed for students interested in gaining experience in a teaching or coaching situation off campus. Practicum is designed for students interested in gaining experience in a teaching or coaching situation on campus. May be repeated for a total of 6 units. Prerequisite: Consent of department chair.

PHED 4950. Selected Topics in Physical Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical education. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHED 4970. Selected Topics offered during Winter Term (4)

PHED 4980. Individual Study (1-4)

For students capable of independent work in need of advanced or specialized study. May be repeated for 6 units. Prerequisite: Consent of department chair.

HEALTH

HLTH 1000. Health in Today's Society (1)

Attention is focused on contemporary health problems and concerns. Typical topics covered are mental health, nutrition, family planning, and the physiological and sociological effects of alcohol, narcotics, and tobacco.

HLTH 2200. School Health and Safety (2)

Investigation and analysis of school health problems and services. The school environment as it relates to accidents and safety.

HLTH 3000. Prevention and Care of Athletic Injuries (2)

Principles and practices of conditioning athletes, with emphasis on the prevention and care of athletic injuries, bandaging, therapy, health habits, and protective equipment. Prerequisites: ZOOL 2250 and junior standing or consent of instructor.

RECREATION

REC 2100. Introduction to Recreation (1)

Provides a perspective of job opportunities in public and private recreation agencies, and the necessary academic preparation. Philosophy and implications of leisure in contemporary
Physical Education and Health

society and issues facing the profession. Professional organizations, and their function, and certification procedures and options. (Formerly PHED 2200)

REC 3100. Recreational Leadership Analysis (3)

Leadership techniques and presentations for games, arts and crafts, music, drama, rhythms, nature activities, special events, sports, and camp fires. Mechanics of program planning for special groups and methods and materials used. Discussion of common and potential problems, and various alternative solutions. (Formerly PHED 3510)

REC 3200. Community Recreation (3)

The role of private and public recreation agencies in the community. Organizational pyramid and structure of community recreation agencies. Legal implications of policies and procedures in the recreational agencies. Facility utilization and the school-community concept. Politics involved in municipal (or public) recreation agencies. (Formerly PHED 3500)

REC 3300. Recreation Administration (3)

Principles of budget and finance. Demographic analysis for program planning. Program evaluation, function and method of statistical reporting. Innovative ideas in programming and organization. (Formerly PHED 3300)

REC 3400. Commercial Recreation (3)

A study of the leisure economy as it is developing in commercial businesses. Examination of the current supply and demand of various commercialized leisure activities. Special emphasis on the development and operational techniques employed in conducting the business.

REC 3500. Community Programming/Planning in Parks & Recreation (3)

Analysis of community data influencing the planning and programming of recreational facilities and activities. Emphasis will be on developing a wide variety of activities and programs based on needs as determined by specific observation/evaluation procedures. Prerequisites: REC 3100, 3200.

REC 4940. Internships in Recreation (1-3)

Provides training and education of the organizational and implementation procedures at the administrative levels within local leisure service agencies. Students will be assigned to an agency for 18 hours per week. Seminars will be held four times during the semester to discuss assignments, etc. Prerequisite: Consent of department chair.
Physics and Physical Sciences
Tai-Low Chow, Ph.D., Professor, Chair
James M. Goodwin, Ph.D., Professor
Ervin H. Schwarcz, Ph.D., Professor
Vladimir S. Tuman, Ph.D., Professor

The Department of Physics and Physical Sciences offers the degrees of Bachelor of Arts and Bachelor of Science, Physics, and Bachelor of Arts, Physical Sciences. A student may pursue a physical sciences major by electing one of the following three concentrations: Applied Physics, Earth and Space Sciences, Environmental Sciences. A student may also pursue a physical sciences major without a concentration by completing sufficient upper division units.

The department also offers degree minors in the following areas: Earth Science, Physical Sciences, and Physics.

A concentration in Physical Sciences and in Physics for the Bachelor of Arts degree in Liberal Studies is available. An approved single subject waiver is also available for students who wish to declare Physical Sciences as their subject matter teaching area.

BACHELOR OF ARTS AND BACHELOR OF SCIENCES, PHYSICS

The curriculum in physics is designed to give the student a thorough understanding of the fundamentals and modern applications of physics. The Bachelor of Science program prepares the student for graduate school, a career in scientific research and development, or industrial work. It is also intended for those students who wish to prepare for interdisciplinary studies on the graduate level in fields such as astronomy and astrophysics, atmospheric science, biophysics, engineering, environmental science, geophysics, or physical oceanography. The Bachelor of Arts degree program is designed for students seeking to enter professions requiring a moderate training in physics.

The lower division requirements of both degree programs can also be used to acquire preparation for study in engineering. After completion, the student can transfer to engineering programs for upper division course work and study in engineering.

REQUIREMENTS FOR THE BACHELOR OF ARTS OR BACHELOR OF SCIENCE, PHYSICS

Physics majors are to:

1. Complete the college requirements for the bachelor's degree.
2. Complete prerequisites to the major.
3. Complete a major of not less than 25 upper division units as specified for the Bachelor of Arts degree, or 34 upper division units as specified for the Bachelor of Science degree; of these, no more than 8 units of CR-graded course work may apply toward the major.

Completion of a minor is not required.
Physics and Physical Sciences

BACHELOR OF ARTS, PHYSICS

Prerequisites to the Major:

Required courses in major field:

PHYS 2250, 2260. General Physics I, II, 8 units
PHYS 2350, 2360. General Physics Laboratory I, II, 2 units

Required courses in supporting field:
(These courses may also apply toward a minor in mathematics or chemistry)

MATH 1910, 1920. Calculus with Applications I, II, 6 units
AND MATH 2500. Elementary Linear Algebra, 3 units
OR MATH 2000. FORTRAN Programming, 3 units

OR

MATH 1410, 1420. Calculus I, II, 8 units
AND MATH 2410. Multivariate Calculus, 4 units

CHEM 1100, 1110. Principles of Chemistry I, II, 10 units

The Major

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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHYS 3010</td>
<td>Introduction to Mathematical Physics I</td>
<td>3</td>
</tr>
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<td>PHYS 3100</td>
<td>Classical Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 3320, 3330</td>
<td>Electricity &amp; Magnetism I, II</td>
<td>6</td>
</tr>
<tr>
<td>PHYS 3520</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3530</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4100</td>
<td>Advanced Physics Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 4530</td>
<td>Thermal &amp; Statistical Physics I</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 25

BACHELOR OF SCIENCE, PHYSICS

Prerequisites to the Major:

Required courses in major field:

PHYS 2250, 2260. General Physics I, II, 8 units
PHYS 2350, 2360. General Physics Laboratory I, II, 2 units

Required courses in supporting field:
(These courses may also apply toward a minor in mathematics or chemistry.)

MATH 1410, 1420. Calculus I, II, 8 units
MATH 2410. Multivariate Calculus, 4 units
CHEM 1100, 1110. Principles of Chemistry I, II, 10 units

388
The Major

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>PHYS 3010</td>
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<td>PHYS 3100</td>
<td>Classical Mechanics</td>
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<td>PHYS 3320, 3330</td>
<td>Electricity &amp; Magnetism I, II</td>
<td>6</td>
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<td>PHYS 3520</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3530</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3540</td>
<td>Quantum Mechanics II</td>
<td>3</td>
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<tr>
<td>PHYS 4100</td>
<td>Advanced Physics Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 4200</td>
<td>Electronics Instrumentation</td>
<td>3</td>
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<tr>
<td>PHYS 4530</td>
<td>Thermal &amp; Statistical Physics I</td>
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Upper division electives in physics & physical sciences 3

Total 34

The recommended electives are:

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<tr>
<td>PHYS 3020</td>
<td>Introduction to Mathematical Physics II, 3 units</td>
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<td>PHYS 3370</td>
<td>Relativity and Cosmology, 3 units</td>
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<tr>
<td>PHYS 4450</td>
<td>Nuclear Physics, 3 units</td>
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<td>PHYS 4540</td>
<td>Thermal &amp; Statistical Physics II, 2 units</td>
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<td>PHYS 4560</td>
<td>Solid State Physics, 3 units</td>
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<td>PHYS 4900</td>
<td>Modern Optics, 3 units</td>
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<tr>
<td>PHYS 4930</td>
<td>Lasers and Holography, 4 units</td>
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<td>ASTR 3000</td>
<td>Contemporary Astronomy, 3 units</td>
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</tr>
<tr>
<td>GEOL 4200, 4210</td>
<td>Earth Science I, II, 6 units</td>
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</table>

DEGREE MINOR IN PHYSICS

Consists of 18 units in physics as approved by the minor adviser, to include at least 8 units in upper division.

LIBERAL STUDIES CONCENTRATION IN PHYSICS

Twenty units, including at least 15 upper division units.

Lower Division

<table>
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<tr>
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<tbody>
<tr>
<td>PHYS 2260</td>
<td>General Physics II, 4 units</td>
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<tr>
<td>AND PHYS 2360</td>
<td>General Physics II Lab, 1 unit</td>
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Note: (a) PHYS 2250. General Physics I, 4 units and
PHYS 2350. General Physics I Lab, 1 unit, must be taken to substitute for PHYS 1500, Energy and Matter, required under Liberal Studies Area B.

(b) MATH 1410. Calculus I, 4 units, and
MATH 1420. Calculus II, 4 units, must be taken to substitute for MATH 1030 and MATH 1040, Elementary Foundations of Mathematics I and II, 6 units, required under Liberal Studies Area B.
Upper Division

At least 15 units chosen from upper division courses in physics. Since many of these courses draw on previous material, scheduling should be done after consultation and with the approval of a physics adviser.

BACHELOR OF ARTS, PHYSICAL SCIENCES

The Bachelor of Arts, Physical Sciences, is an interdisciplinary degree designed to prepare students for a greater diversity of professions requiring an understanding of the fundamentals of the physical sciences which is defined to include courses in the following areas: astronomy, chemistry, environmental sciences, geology, marine sciences, and physics.

A student may pursue a physical sciences major by electing one of the following three concentrations: Applied Physics, Earth and Space Sciences, or Environmental Sciences.

A student may also pursue a physical sciences major without a concentration by completing sufficient upper division units in two areas of interest chosen from astronomy, chemistry, environmental sciences, geology, marine science, and physics. The student should consult with a department adviser as to the areas of interest and to the proper selection of courses to suit his or her aims.

Students interested in seeking entrance to medical school, dental school, and other health professions such as pharmacy, physical therapy, optometry, teaching science in secondary school, environmental design, technical administration in government and industry, laboratory technology, legal work pertaining to patents, or scientific librarianship and journalism, may elect this major as an opportunity to acquire an education tailored to their individual needs.

The physical sciences major whose interest is in marine geology and physical oceanography will be required to enroll in upper division course work at the Moss Landing Marine Laboratories for fulfillment of major requirements. Refer to the Marine Science section of the catalog for description of Moss Landing course offerings.

Physical sciences majors interested in medical professions should work out a plan of study as soon as possible with their major adviser and health sciences committee. Refer to the health sciences section of this catalog.

REQUIREMENTS FOR BACHELOR OF ARTS, PHYSICAL SCIENCES

Physical Science majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units of physical sciences. Up to 8 units of CR-graded work may apply toward the major.

No minor is required.
DEGREE MAJOR IN PHYSICAL SCIENCES

Prerequisites to the Major:

PHYS 2250, 2260. General Physics I, II, 8 units
and PHYS 2350, 2360. General Physics Lab I, II, 2 units
OR
PHYS 1100, 1110. Basic Physics I, II, 10 units
CHEM 1100, 1110. Principles of Chemistry I, II, 10 units
MATH 1910, 1920. Calculus with Applications I, II, 6 units

Students interested in earth science and astronomy may substitute:

MATH 1600. Statistics, 4 units
and MATH 2000. FORTRAN Programming, 3 units

The Major

Complete upper division courses of not less than 24 units by satisfying either 1 or 2 below:

1. The student who pursues a physical sciences major without a concentration must select two areas of interest in physical sciences and complete upper division courses of not less than 12 units from these areas. He or she may, in consultation with the adviser, complete any other courses in physical sciences or mathematics to meet the total required for the major of 24 upper division units.

2. The student may also pursue a physical sciences major by completing one of the following concentrations and other appropriate upper division courses to satisfy the total required units for the major of 24 upper division units.

ENVIRONMENTAL SCIENCES CONCENTRATION

Complete all requirements of the environmental science concentration (13 upper division units). Select an additional 11 upper division units of appropriate courses in consultation with the adviser.

SPACE AND EARTH SCIENCES CONCENTRATION

Twelve units to be selected from the following:

ASTR 3000. Contemporary Astronomy, 3 units
ASTR 3200. Planetary and Space Science, 3 units
ASTR 3500. Observational Astronomy, 3 units
GEOL 3000. Physical & Environmental Geology, 3 units
GEOL 4200, 4210. Earth Science I, II, 6 units
GEOL 4300. Minerals and Crystals, 2 units
MSCI 3430. Coastal Geomorphology, 3 units
MSCI 3510. Marine Meteorology, 3 units
Physics and Physical Sciences.

Electives, 12 upper division units in physical sciences or mathematics, in consultation with the adviser. One elective course may be chosen from the following:

- GEOG 3100. Climatology, 3 units
- GEOG 3120. Geomorphology, 3 units
- GEOG 3700. Cartographic Presentation, 3 units
- GEOG 3710. Remote Sensing of the Environment, 2 units

APPLIED PHYSICS CONCENTRATION

Required courses:

- PHYS 3520. Modern Physics, 3 units
- PHYS 4100. Advanced Physics Lab, 2 units
- PHYS 4200. Electronics Instrumentation, 3 units
- PHYS 4930. Lasers and Holography, 4 units

Electives, 12 upper division units in physical sciences or mathematics, in consultation with the adviser.

DEGREE MINOR IN PHYSICAL SCIENCES

Consists of 18 units in physical sciences as approved by the minor adviser, to include at least 8 units in upper division.

DEGREE MINOR IN EARTH SCIENCES

Lower Division

- GEOL 2100. Principles of Geology, 4 units
- PHSC 2100. Atmosphere, Weather, and Climate, 3 units
  or GEOG 3100. Climatology, 3 units

Upper Division

Required:

- GEOL 4200, 4210. Earth Sciences I, II, 6 units

Electives, 6 units, selected from the following:

- GEOL 3000. Physical & Environmental Geology, 3 units
- GEOL 4500. Field Geology, 4 units
- GEOG 3120. Geomorphology, 3 units
- GEOG 3700. Cartographic Presentation, 3 units
- GEOG 3710. Remote Sensing of the Environment, 2 units
LIBERAL STUDIES CONCENTRATION IN PHYSICAL SCIENCES

Twenty units, including at least 15 upper division units.

Lower Division

PHYS 2260. General Physics II, 4 units,
and PHYS 2360. General Physics II Lab, 1 unit
OR
PHYS 1110. Basic Physics II, 5 units, with consent of adviser.

Note: (a) PHYS 2250. General Physics I, 4 units,
and PHYS 2350. General Physics I Lab, 1 unit
OR
PHYS 1100. Basic Physics I, 5 units, with consent of adviser, must be taken to substitute for PHYS 1500, Energy and Matter, 3 units, required under Liberal Studies Area B:

(b) MATH 1410. Calculus I, 4 units,
and MATH 1420. Calculus II, 4 units, must be taken to substitute for MATH 1030 and MATH 1040. Elementary Foundations of Mathematics I and II, 6 units, required under Liberal Studies Area B, unless the PHYS 1110 option is approved by the physics adviser.

Upper Division

At least 15 units chosen from upper division courses in physical science, astronomy, geology, or physics, with consent of the physical science adviser, to include at least 3 of the following courses:

PHSC 3000. Physical Science of the Environment, 3 units
ASTR 3000. Contemporary Astronomy, 3 units
GEOL 3000. Physical & Environmental Geology, 3 units
PHYS 3520. Modern Physics, 3 units

TEACHING CREDENTIALS

The major requirements in physical sciences for students interested in obtaining a single subject teaching credential waiver are listed below. Please refer to the Education section of the catalog for a description of other requirements to be completed in obtaining a single subject credential.
# Physical Science Waiver Program

**With a Major in Physical Science**

## Lower Division

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2250, 2260</td>
<td>General Physics I, II</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 2350, 2360</td>
<td>General Physics Laboratory I, II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1100, 1110</td>
<td>Principles of Chemistry I, II</td>
<td>10</td>
</tr>
<tr>
<td>MATH 1910, 1920</td>
<td>Calculus with Applications I, II</td>
<td>6-8</td>
</tr>
<tr>
<td>OR MATH 1410, 1420</td>
<td>Calculus I, II</td>
<td></td>
</tr>
<tr>
<td>BIOL 1010</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>PHSC 2100</td>
<td>Atmosphere, Weather, &amp; Climate</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 2100</td>
<td>Principles of Geology</td>
<td>4</td>
</tr>
</tbody>
</table>

## Upper Division

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 3000</td>
<td>Contemporary Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3010</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3030</td>
<td>Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3520</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

One of the following sequences:

1. ASTR 3200. Planetary & Space Sciences, 3 units  
   ASTR 3500. Observational Astronomy, 3 units
2. CHEM 4010, 4020. Physical Chemistry I, II, 6 units
3. GEOL 4200, 4210. Earth Science I, II, 6 units
4. PHYS 3320, 3330. Electricity & Magnetism I, II, 6 units
5. PHYS 4200. Electronics Instrumentation, 3 units  
   PHYS 4930. Lasers and Holography, 4 units
6. CHEM 3020. Organic Chemistry II, 3 units  
   CHEM 3040. Organic Chemistry Laboratory II, 2 units  
   CHEM 4010. Physical Chemistry I, 3 units  
   CHEM 4030. Physical Chemistry Laboratory, 1 unit

Electives in Chemistry, Physics, Physical Science,  
Geology, or Astronomy 4-9

**Total Units:** 37-39
PHYSICS
Lower Division

PHYS 1100. Basic Physics I (5)

General physics without using calculus. Newtonian mechanics, wave motion, heat, and thermodynamics. Designed for general students and for students preparing for biology or medicine. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisites: Algebra and trigonometry, or consent of instructor.

PHYS 1110. Basic Physics II (5)

Continuation of PHYS 1100. Electricity and magnetism, light, optics, atoms, and nucleus. Prerequisite: PHYS 1100.

PHYS 1500. Energy and Matter (3)

A descriptive survey of the basic concepts and principles of physics. Topics will range from classical Newtonian mechanics to modern theories of the atom and the nucleus. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: None.

PHYS 1600. Essential Physics (4)

Designed for those who want to understand essential physics today. Topics will range from mechanics to atomic and nuclear physics, with emphasis on electromagnetism, optics, nuclear physics, and thermophysics; limited mathematics will be self-developed and used in this course. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: None.

PHYS 2250. General Physics I (4)

General physics using calculus, for science students. Mechanics, wave motion, heat, and thermodynamics. (Lecture, 3 hours; discussion, 1 hour) Prerequisite: Concurrent enrollment in MATH 1410, or consent of instructor.

PHYS 2260. General Physics II (4)

Continuation of PHYS 2250. Electricity, magnetism, light, optics. Prerequisite: PHYS 2250.

PHYS 2350. General Physics Laboratory I (1)

Laboratory to accompany PHYS 2250. Prerequisite: PHYS 2250 or concurrent enrollment in PHYS 2250.
Physics and Physical Sciences

PHYS 2360. General Physics Laboratory II (1)

Laboratory to accompany PHYS 2260. Prerequisite: PHYS 2260 or concurrent enrollment in PHYS 2260.

PHYS 2950. Selected Topics in Physics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physics. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHYS 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHYS 3010. Introduction to Mathematical Physics I (3)

Matrix algebra, tensors, formulations of the partial differential equations of classical and quantum physics, and the mathematical methods required for their solutions; integral transformations, theory of residues and conformed mapping, special functions. Examples are given from all fields of physics. Prerequisite: PHYS 2260.

PHYS 3020. Introduction to Mathematical Physics II (3)

Continuation of PHYS 3010. Prerequisite: PHYS 3010.

PHYS 3100. Classical Mechanics (4)

Dynamics of particles and rigid bodies, gravitation, Lagrangian and Hamiltonian dynamics, theory of oscillations, and the wave equation. (Formerly 3140, 3150) Prerequisite: PHYS 2260.

PHYS 3320. Electricity and Magnetism I (3)

Electrostatics, magnetostatics, electric current, electromagnetic induction, Maxwell's equations, electromagnetic waves, radiative reaction, electric and magnetic properties of materials, properties of wave guides. Prerequisite: PHYS 2260.

PHYS 3330. Electricity and Magnetism II (3)

Continuation of PHYS 3320. Prerequisite: PHYS 3320.

PHYS 3370. Relativity and Cosmology (3)

Introduction to the physical basis and mathematical formulation of general relativity, experimental tests of general relativity, gravitational waves, gravitational collapse, cosmological implications of recent developments in general relativity. Prerequisite: PHYS 3150 or consent of instructor.
PHYS 3520. Modern Physics (3)

Origin of quantum theory, atomic structure, X-rays, and the elements of nuclear physics and particle physics. Prerequisite: PHYS 2260.

PHYS 3530. Quantum Mechanics I (3)

Development of Schrodinger's equation and its interpretations. Mathematical techniques for solution of problems in one and three dimensions. Perturbation and scattering theory. Solution of the hydrogen atom problem. Application to atomic phenomena. Prerequisite: PHYS 3520 or consent of instructor.

PHYS 3540. Quantum Mechanics II (3)

Continuation of PHYS 3530. Prerequisite: PHYS 3530.

PHYS 4100. Advanced Physics Laboratory (1)

Project type experiments in mechanics, heat, electricity, and magnetism, optics, atomic physics, nuclear physics, etc. (Laboratory, 3 hours) Prerequisite: Upper division standing or consent of instructor. This course may be repeated for a maximum of 6 units.

PHYS 4200. Electronics Instrumentation (3)

Introduction to basic electronics and fundamental electronic measuring instruments. The student will study the experimental setup in an actual system used in his field of interest, chosen from current literature. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: Upper division standing or consent of instructor.

PHYS 4450. Nuclear Physics (3)

Elements of nuclear structure, radioactivity, interaction of nuclear radiations with matter, detection of nuclear radiation, fission and fusion, nuclear models. Prerequisite: PHYS 3520 or consent of instructor.

PHYS 4530. Thermal and Statistical Physics I (4)

Thermodynamics and statistical mechanics. A unified approach following Gibbs, based on a microscopic description using quantum states. Fermi, Bose, and "Classical" systems are discussed, with applications to standard and current topics. Prerequisite: PHYS 2260 or consent of instructor.

PHYS 4540. Thermal and Statistical Physics II (2)

Continuation of PHYS 4530. Prerequisite: PHYS 4530 or consent of instructor.
PHYSICS AND PHYSICAL SCIENCES

PHYS 4560. Solid State Physics (3)

Crystal structure, metal crystals, molecular crystals. Thermal, electrical, magnetic properties of crystals. Free electron model of metals, band theory of solids. Prerequisite: PHYS 3520 or 4530.

PHYS 4900. Modern Optics (3)

Principles of geometrical optics; reflection, refraction, polarization, coherence and interference, Kirchhoff's diffraction theory, Fourier methods in optics, optics of solids, lasers and holography. Prerequisite: PHYS 2260.

PHYS 4930. Lasers and Holography (4)

Interference and coherent light, holographic recording and image reconstruction, properties of holograms and a geometric interpretation, semiclassical radiation fields, coherence theory, induced and spontaneous emission, theories and properties of lasers. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: PHYS 2260.

PHYS 4950. Selected Topics in Physics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physics. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHYS 4970. Selected Topics offered during Winter Term (4)

PHYS 4980. Individual Study (1-4)

For students capable of independent work in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHYS 5980. Individual Study (1-4)

For qualified students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHYSICAL SCIENCES

LOWER DIVISION

PHSC 1000. Solar Energy -- Today (3)

Survey of the direct use of sunlight to supply the basic human needs for energy; brings students up to date on work to the present
Physics and Physical Sciences

time on the broad spectrum of solar energy utilization. (Lecture, 3 hours) Prerequisite: None.

PHSC 1300. Environmental Pollution (3)

Survey of the pollution of the air, water, and land environment. The physical and chemical aspects of pollution by chemicals, pesticides, wastes, radioactivity, heat, and noise. (Lecture, 3 hours) No prerequisite.

PHSC 2000. Introduction to Earth Science (3)

Presents nonscience majors with a unified interdisciplinary study of the earth. Diverse topics are drawn from geology, meteorology, and oceanography. (Lecture, 3 hours) No prerequisite.

PHSC 2100. Atmosphere, Weather, and Climate (3)

An introduction to weather and climate phenomena, with emphasis on the weather events that occur in California. Basic principles concerning behavior of the atmosphere and the physical processes underlying weather phenomena. Topics include cloud forms, precipitation, pollution, storms, weather maps, and elementary weather forecasting. (Lecture, 3 hours) Prerequisite: None.

PHSC 2950. Selected Topics in Physical Sciences (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical sciences. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHSC 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHSC 3000. Physical Science of the Environment (3)

Fundamental physical science aspects of environmental science. Topics include air pollution and associated atmospheric science, water pollution, nuclear energy and radioactive pollution, thermal pollution, and other environmental subject. Prerequisite: Upper division standing or consent of instructor.

PHSC 3500. Solar and Other Alternative Energies (4)

Introduces the various techniques for utilizing solar energy and brings the students up to date on work to the present time on the broad spectrum of solar energy systems. Other alternative energy sources such as fission and fusion powers, geothermal energy, energy from the wind and from solid waste would also be included. Prerequisite: Upper division standing or consent of instructor.
Physics and Physical Sciences

PHSC 4950. Selected Topics in Physical Sciences (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical science. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHSC 4960. Physical Sciences Seminar (1)

Presentation and discussion of selected topics in physical sciences from current literature. May be repeated for credit. Prerequisite: Consent of instructor.

PHSC 4970. Selected Topics offered during Winter Term (4)

PHSC 4980. Individual Study (1-4)

For students capable of independent work in need of advanced and specialized study. The Physical Sciences Department encourages students to submit proposals in areas of their interest. The proposal should outline their projects and exhibit concrete plans for their successful completion. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHSC 5980. Individual Study (1-4)

For qualified students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ASTRONOMY

Lower Division

ASTR 2100. Descriptive Astronomy (3)

Development of astronomical thought from Ptolemy to Einstein; the earth and the moon, atoms; light and the tools of astronomers; planets, comets, and meteors; the sun, stars, stellar evolution; galaxies and cosmology. (Lecture, 3 hours) No prerequisite. Audio-tutorial program and materials available every semester; features self-paced study and individual tutoring.

ASTR 2110. Astronomy Laboratory (1)

Telescope observations of the moon, planets, their satellites, and sunspots. Laboratory experiments related to astronomy. Offered once a year, fall or spring. Prerequisite: ASTR 2100 or concurrent enrollment in ASTR 2100.
Physics and Physical Sciences

ASTR 2970. Selected Topics offered during Winter Term (4)

Upper Division

ASTR 3000. Contemporary Astronomy (3)

A survey of recent developments in astronomy: gamma ray, X-ray, ultraviolet, infrared, and gravitational astronomy; stars, interstellar molecules, stellar evolutions, neutron stars, pulsars, and black holes; galaxies, radio galaxies, quasars; new trends in cosmological thinking, new findings of space programs about the planets and the sun. Prerequisite: Upper division standing or consent of instructor.

ASTR 3200. Planetary and Space Science (3)

Study of the structure of the planets, their atmospheres, interplanetary plasma, theories of origin of the planets and of planetary atmospheres, new developments of space programs. Additional topics of current interest may be added. Prerequisite: ASTR 2100 or consent of instructor.

ASTR 3500. Observational Astronomy (3)

Simple techniques and instruments of optical observations of astronomical objects; astrophotography, photometry, and reduction of photographic and photometric data; laboratory projects. (Lecture, 1 hour; laboratory, 6 hours) Prerequisite: ASTR 2100.

ASTR 4970. Selected Topics offered during Winter Term (4)

GEOLOGY

Lower Division

GEOL 2100. Principles of Geology (4)

Survey of the structure and the materials of the outer portion of the earth and the geologic processes responsible for sculpturing the earth of today. (Lecture, 3 hours; laboratory, 3 hours, including some field trips) Prerequisite: None.

GEOL 2970. Selected Topics offered during Winter Term (4)

Upper Division

GEOL 3000. Physical and Environmental Geology (3)

Structural geology, global tectonics, and other topics of physical geology. Interaction of man with his geological environment, hazards from earthquakes and landslides, disposal of wastes in land and waters, conservation of minerals and resources, geology, and regional planning. Prerequisite: GEOL 2100.
Physics and Physical Sciences

GEOL 3200. Plate Tectonics and Continental Drift I (3)

Study the theory of plate tectonic and present magnetic gravity, heat flow, earthquake, and other evidence in the support of the theory. Prerequisite: GEOL 2100.

GEOL 3210. Plate Tectonics and Continental Drift II (3)

Continuation of GEOL 3200. Prerequisite: GEOL 3200.

GEOL 3500. Geology of Petroleum (3)

The origin of petroleum; hydrocarbon, its formation and migration into reservoir rocks will be discussed with emphasis on the types of oil fields. Prerequisite: GEOL 2100.

GEOL 4200. Earth Science I (3)

Study of physical properties of rocks, earth's internal structure, seismic techniques of earthquakes, gravity, and magnetic properties of the earth. Prerequisite: GEOL 2100 or consent of instructor.

GEOL 4210. Earth Science II (3)

Continuation of GEOL 4200. Prerequisite: GEOL 4200.

GEOL 4300. Minerals and Crystals (2)

Study and classification of crystals, physical properties of crystals with their chemical composition, property of light, and optical properties of minerals under polarized light. Prerequisite: GEOL 2100 or consent of instructor.

GEOL 4500. Field Geology (4)

Study of geological maps and preparation of local maps for use in field study; locate and study specific geologic structure. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: GEOL 2100 or consent of instructor.
Political Science

Paul F. Magnelia, Ph.D., Professor, Chair
Gary C. Shaw, Ph.D., Professor
Kenneth Entin, Ph.D., Associate Professor
Steven Hughes, Ph.D., Associate Professor
Richard Mendes, Ph.D., Associate Professor
John T. Wold, Ph.D., Associate Professor
Lawrence L. Giventer, Ph.D., Assistant Professor

The Department of Political Science offers the degree Bachelor of Arts, Political Science. The primary objective of the major in political science is to provide a core for a liberal arts education that will prepare the student to assume and execute his responsibilities intelligently as a citizen in a consciously self-governing community. The major program also provides appropriate preprofessional training for the student who intends to enter graduate school, study for a teaching credential, or pursue one of the careers listed below.

Careers in Law:

While all prelaw students should have a strong background in the liberal arts, many can benefit in particular from courses offered by the Department of Political Science. Especially recommended are courses dealing with the judiciary and other aspects of American politics. The department also participates in the Administration of Justice program. Prelaw students interested in advising should contact the department.

Careers in Government:

The Department of Political Science offers courses in the field of public administration specifically designed for those who wish to pursue a career in government. A Public Service Intern Project, an integral aspect of the program, enables students to gain practical experience in local, county, and state governments.

Careers in Foreign Affairs:

The Department of Political Science offers a number of courses which help prepare students interested in entering foreign service on the various international organization. These courses are combined with courses in related disciplines.
Political Science

REQUIREMENTS FOR THE BACHELOR OF ARTS, POLITICAL SCIENCE

Political Science majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 25 upper division units. Eight units of Winter Term CR graded course work may apply toward the major.
Completion of a minor is not required.

DEGREE MAJOR IN POLITICAL SCIENCE

Prerequisites to the Major

Required courses in the major field

PSCI 1201. American Government, 3 units
PSCI 2000. Introduction to Political Science, 3 units (recommended)
or PSCI 2020. Politics and Society, 3 units

Required courses in supporting fields: Two of the following:

ANTH 2060. Introduction to Cultural Anthropology, 3 units
ECON 2500. Principles of Economics I, 4 units
GEOG 2400 or 2410. World Regional Geography I or II, 3 units
SOCL 1010. Introduction to Sociology, 3 units

Strongly recommended:

MATH 1600. Statistics, 4 units

The Major

PSCI 3000. Ancient & Medieval Political Thought
or PSCI 3010. Modern Political Thought ........ 3
PSCI 3100. Scope & Methods of Political Science ..... 4

One 3000-level course from each of the following fields:
American Politics, Comparative Politics, International Relations ........... 9

Courses in Political Science as approved by major adviser .......................... 9

Total ........................................ 25
Lower Division

Complete prerequisites to the major described on the preceding page.

Upper Division

1. PSCI 3100. Scope & Methods of Political Science . . 4
   One course in Political Theory & Methodology . . . 3-4
   One 3000-level course in Comparative Politics . . . 3-4
   One 3000-level course in International Relations . . 3-4 13-16

2. PSCI 3300. Introduction to Public Administration . 3
   PSCI 4300. Organizational Theory, 4 units
   or SOCL 4800. Formal Organizations, 3 units . . 3-4
   BUS 2110. Financial Accounting, 4 units
   OR
   BUS 3310. The Administrative Process, 3 units 3-4 9-11

3. One of the following courses . . . . . . . . . . . . . . . 3-4
   PSCI 3330. California Politics, 3 units
   PSCI 4330. Urban Politics, 4 units
   PSCI 4420. Comparative Bureaucracies, 3 units

4. One of the following courses . . . . . . . . . . . . . . . 3-4
   PSCI 3210. Legislative Process, 3 units
   PSCI 3220. Constitutional Law, 4 units
   PSCI 3250. Political Parties & Interest Groups, 4 units
   PSCI 3250. Public Opinion & Voting Behavior, 4 units
   PSCI 4230. The Chief Executive, 3 units

5. One of the following courses . . . . . . . . . . . . . . . 3
   ECON 3150. National Income Analysis, 3 units
   ECON 4540. Public Finance & Fiscal Policy, 3 units
   ECON 4550. Taxation & the American Economy, 3 units

6. One course selected from either A or B . . . . . . . . . 3-4
   A. GEOG 4350. Urban Geography, 3 units
   HIST 3640. Contemporary America, 3 units
   SOCL 4810. Urban Sociology, 3 units
   ECON 4600. Urban Economics, 3 units
   B. BUS 2130. Managerial Accounting, 4 units

7. Upper division units in political science to total the 25 units required for the B.A. degree.
Political Science

DEGREE MINOR IN POLITICAL SCIENCE

Sixteen units approved by the minor adviser are required, including at least 10 units in upper division courses.

MASTER OF PUBLIC ADMINISTRATION

The Department of Political Science and the Department of Economics jointly offer graduate study leading to the degree of Master of Public Administration. The program of study is designed for those who are preparing for careers in public service, for those already in public service who seek professional development in their careers, and those who are preparing for teaching and research in the field. For further information, see section on Public Administration.

LIBERAL STUDIES CONCENTRATION IN POLITICAL SCIENCE

Twenty units, including at least 15 upper division units.

Lower Division

Units

PSCI 2020. Politics and Society
or PSCI 2600. Issues in International Politics . . . 3

Upper Division

At least two courses selected from the following: . . . 6-8

PSCI 3400. Comparative Politics: Europe, 4 units
PSCI 3410. Comparative Politics: Latin America, 4 units
PSCI 3420. Comparative Politics: East Asia, 4 units
PSCI 3450. Comparative Politics: USSR & Eastern Europe, 3 units

At least two courses selected from the following: . . . 6-8

PSCI 3210. Legislative Process, 3 units
PSCI 3230. Political Parties & Interest Groups, 4 units
PSCI 3250. Public Opinion & Voting Behavior, 4 units
PSCI 4230. The Chief Executive, 3 units
PSCI 4330. Urban Politics, 4 units
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . 1-5

Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . 20

TEACHING CREDENTIALS

An approved single subject waiver is available for students who wish to declare Government as their subject matter teaching area. Students must plan their academic programming carefully with their adviser in order to complete the approved waiver program at the time of graduation.
Political Science

POLITICAL SCIENCE SUB-AREAS

POLITICAL THEORY AND METHODOLOGY

PSCI 3000. Ancient & Medieval Political Thought, 3 units
PSCI 3010. Modern Political Thought, 3 units
PSCI 3030. American Political Thought, 3 units
PSCI 3050. Marxist Political Thought, 3 units
PSCI 3060. Contemporary Political Thought, 3 units
PSCI 3100. Scope & Methods of Political Science, 4 units
PSCI 3110. Research Design Seminar in Political Science, 3 units
PSCI 4020. Selected Topics in Political Theory, 1-3 units

AMERICAN POLITICS

PSCI 3210. Legislative Process, 3 units
PSCI 3220. Constitutional Law, 4 units
PSCI 3230. Political Parties & Interest Groups, 4 units
PSCI 3250. Public Opinion & Voting Behavior, 4 units
PSCI 3260. Urban Justice, 3 units
PSCI 3300. Introduction to Public Administration, 3 units
PSCI 3330. California Politics, 3 units
PSCI 4200. Problems in Civil Liberties, 3 units
PSCI 4210. The Judicial Process, 3 units
PSCI 4220. Simulation-Supreme Court Decision-Making, 3 units
PSCI 4230. The Chief Executive, 3 units
PSCI 4240. Executive Legislative Relations, 3 units
PSCI 4300. Organization Theory, 4 units
PSCI 4315. Public Policy Making, 3 units
PSCI 4320. Minority Politics, 3 units
PSCI 4330. Urban Politics, 4 units
PSCI 4940. Public Administration Internship, 3 units

COMPARATIVE POLITICS

PSCI 3400. Comparative Politics: Europe, 4 units
PSCI 3410. Comparative Politics: Latin America, 4 units
PSCI 3420. Comparative Politics: East Asia, 4 units
PSCI 3450. Comparative Politics: USSR & Eastern Europe, 3 units
PSCI 4420. Comparative Bureaucracies, 3 units
PSCI 4450. Political Elites, 3 units

INTERNATIONAL RELATIONS

PSCI 3600. International Relations, 4 units
PSCI 3620. Soviet Foreign Policy, 3 units
PSCI 4610. National Security Administration and Policy Making, 3 units
PSCI 4620. International Dimensions of National Security, 3 units
PSCI 4630. Inter-American Affairs, 3 units
Political Science

SPECIALIZED COURSES

PSCI 4950. Selected Topics in Political Science, 1-5 units
PSCI 4960. Senior Seminar, 3 units
PSCI 4980. Individual Study, 1-4 units

INTERDISCIPLINARY

PSCI 4700. The Political Novel, 4 units

GRADUATE

PSCI 5000. International Relations Seminar, 4 units
PSCI 5990. Thesis, 1-6 units
PADM 5010. Quantitative Analysis, 3 units
PADM 5015. Public Policy Analysis, 3 units
PADM 5400. Modeling & Simulation for Policy Analysis, 3 units
PADM 5500. Administrative Law & Public Policy, 3 units
PADM 5800. Seminar in Problems of Public Administration, 1-5 units

COURSE DESCRIPTION

Lower Division

PSCI 1201. American Government (3)

Critical analysis of American political structures and processes. Meets U.S. Constitution and California state and local government requirements for General Education. (Formerly 1200)

PSCI 2060. Introduction to Political Science (3)

Examination of the foundations of political science and political behavior in the West. Emphasis is placed on broadening the understanding of political science as a discipline. Recommended for majors.

PSCI 2020. Politics and Society (3)

An examination of the translation of social concerns into political conflicts. The development of mass ideologies and mass political movements, both historical and contemporary, will be considered. (Formerly 2010)

PSCI 2600. Issues in International Politics (3)

Study of contemporary issues in international relations. Such topical items as East-West relations, emerging role of small nations, and population and technological factors affecting the international system are included in the course.
PSCI 2900. Library Resources and Bibliographical Control for Research in Political Sciences (2)

Survey of abstracts, bibliographies, biographical directories, book review indexes, dictionaries, documents, encyclopedias, and indexes for historical research; and the application of footnote and bibliographical methods for political science majors. Pre-requisite: None. (Same as GEOG 2900 and HIST 2900)

PSCI 2950. Selected Topics in Political Science (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of political science. Topics may vary each term. Different courses may be taken for credit. Prerequisite: Consent of instructor.

PSCI 2970. Selected Topics offered during Winter Term (4)

Upper Division

PSCI 3000. Ancient & Medieval Political Thought (3)

Historical development of political philosophy from ancient times to seventeenth century. Prerequisite: PSCI 1201.

PSCI 3010. Modern Political Thought (3)

Political thought from seventeenth century to present, with emphasis on such European philosophers as Hobbes, Locke, Rousseau, and Marx. Prerequisite: PSCI 1201.

PSCI 3030. American Political Thought (3)

Main trends of American political thinking from colonial times to the present. PSCI 3000 recommended.

PSCI 3050. Marxist Political Thought (3)

Examination of the foundations and philosophical assumptions of Marxist theory. PSCI 3000 recommended.

PSCI 3060. Contemporary Political Thought (3)

Readings in political philosophy focusing on the technological society. Included in the readings will be Marxist revisionism, existentialism, behavioralism, and selected utopian reactions to technology. PSCI 3000 recommended.

PSCI 3100. Scope and Methods of Political Science (4)

This course is designed to introduce students to the basic assumptions and techniques of empirical political science. Topics
Political Science

to be discussed include the philosophy of the scientific method, the structure of theory and models, the measurement of political science data processing equipment to handle large amounts of information. Prerequisite: PSCI 1201. MATH 1600 recommended.

PSCI 3110. Research Design Seminar in Political Science *(3)*

This course will focus upon the construction and implementation of political science experiments and surveys. It will include a discussion of the sources of bias and error in political science research. Prerequisite: PSCI 3100.

PSCI 3210. Legislative Process *(3)*

Analysis of the procedures and politics of legislatures with emphasis on the American Congress; executive-legislative relations, and proposals for congressional reform are also examined. Prerequisite: PSCI 1201.

PSCI 3220. Constitutional Law *(4)*

A study of the nature and scope of judicial review in American politics, focusing specifically on the development of lines of precedence in the areas of commerce, due-process (substantive and procedural), equal protection, and First Amendment freedoms. Prerequisite: PSCI 1201.

PSCI 3230. Political Parties and Interest Groups *(4)*

Study of the organization and activities of political parties and interest groups in the American political system. Emphasis is placed on the varieties and techniques of interest groups, the role of parties in elections and party reform. Prerequisite: PSCI 1201.

PSCI 3250. Public Opinion and Voting Behavior *(4)*

American voting behavior, psychological dimensions of citizen decision-making in a democracy, political attitudes and beliefs and campaign tactics. Field work. Prerequisite: PSCI 1201.

PSCI 3260. Urban Justice *(3)*

Overcrowded courts, discrimination, infringements on personal privacy, and the political influence of organized crime are problem areas of contemporary urban life. This course deals with these and related topics. Prerequisite: PSCI 1201.

PSCI 3300. Introduction to Public Administration *(3)*

This course is an introduction to the study of principles and problems in administrative procedure in public organizations.
Political Science

Specific areas of examination include the relationship between bureaucratic and democratic theory, organization theory, personnel administration, fiscal and budgetary policy, and regulatory administration. Prerequisite: PSCI 1201.

PSCI 3330. California Politics (3)

A study of politics and decision-making in California. Emphasis is placed on the ways public officials and private groups interact in the political area. Prerequisite: PSCI 1201.

PSCI 3400. Comparative Politics: Europe (4)

This course is designed to acquaint the student with the comparative approach to the study of European politics by emphasizing the similarities and differences of social and cultural variables as they impinge upon the institutions of government. Prerequisite: PSCI 1201.

PSCI 3410. Comparative Politics: Latin America (4)

A general survey of the politics of Latin America. Course includes historical factors affecting nature of contemporary politics; the nature of contemporary political developments; the role of such forces as military, the church, and the United States, and the nature of revolution in Latin America. Prerequisite: PSCI 1201.

PSCI 3420. Comparative Politics: East Asia (4)

An examination of the dynamics of the major governments of East Asia, especially China and Japan. Prerequisite: PSCI 1201.

PSCI 3450. Comparative Politics: USSR & Eastern Europe (3)

An analysis of government, politics, and political development in communist political systems. Primary focus in the course will be on the USSR. Prerequisite: PSCI 1201.

PSCI 3600. International Relations (4)

Introduction to the elements of international relations. Work in lab simulation will be an integral part of the course. Prerequisite: PSCI 1201.

PSCI 3620. Soviet Foreign Policy (3)

Analytical and historical examination of Soviet policy. Emphasis on the role of communist ideology, Russian tradition, and politics of the Soviet Union. Prerequisite: PSCI 1201.
Political Science

PSCI 4020. Selected Topics in Political Theory (1-3)

Analysis and discussion of selected issues and/or systems in political theory. May be repeated up to 6 units. PSCI 3000 recommended.

PSCI 4200. Problems in Civil Liberties (3)

An examination of selected issues in American civil liberties, emphasizing such areas as speech, religion, criminal procedures, public school desegregation, voting, and personal security. Designed especially for pre-law and advanced students. Prerequisite: PSCI 1201. PSCI 3220 recommended.

PSCI 4210. The Judicial Process (3)

A study of judicial decision-making and of the organization of the American judiciary. Emphasis is placed on the federal courts. Prerequisite: PSCI 1201. PSCI 3220 strongly recommended.

PSCI 4220. Simulation-Supreme Court Decision-Making (3)

A study of decision-making in the United States Supreme Court through the use of discussions and simulations of the decisional process. Prerequisite: PSCI 1201.

PSCI 4230. The Chief Executive (3)

A study of the chief executive in American national government. The roles, responsibilities, powers and limits of the President and other decision-makers in the Executive Branch are analyzed; and the centrality of the executive in the American political system is emphasized. Prerequisite: PSCI 1201.

PSCI 4240. Executive Legislative Relations (3)

Examination of important concepts and issues affecting the relationship between the executive and legislative branches. The course will focus on the impact of a variety of factors including executive privilege, impoundment, congressional investigations, impeachment, the Vietnam War and Watergate.

PSCI 4300. Organization Theory (4)

The study of public administration is concerned with current literature on organizational behavior. The public bureaucracy is the largest of all complex organizations. This course is designed to acquaint the student with current research in this area. Research projects required. Prerequisite: PSCI 1201. PSCI 3300 recommended.
PSCI 4315. Public Policy Making (3)

This course will address two areas of the policy making process: a) the role of social/political institutions—with particular attention to administrative agencies, interest groups and the judiciary in addition to the presidency and Congress, b) principal models of policy formation including elitism, systems theory, and incrementalism. Policy making in a number of specific domestic problem areas will be studied. (Formerly 4310) Prerequisite: PSCI 1201. PSCI 3300 recommended.

PSCI 4320. Minority Politics (3)

Study of strategies and styles of minority groups in the American political system with emphasis on White ethnic groups, Blacks, Mexican-Americans, Japanese, and Indians. Critical analysis of recent innovative attempts to deal with minority problems. Prerequisite: PSCI 1201. PSCI 4330 recommended.

PSCI 4330. Urban Politics (4)

Study of politics, organization, and problems at the urban level with emphasis on the responses of state and federal governments to the needs and demands of cities. Prerequisite: PSCI 1201.

PSCI 4420. Comparative Bureaucracies (3)

This course treats the administrative systems of the major western nations in terms of rules, administrative roles, recruitment patterns, supervision, and controls. Prerequisite: PSCI 1201. PSCI 3300 recommended.

PSCI 4450. Political Elites (3)

An analysis of political elites in the United States, Western Europe and Latin America. Emphasis is placed on the characteristics of elites, the means by which they become elites, and elite manipulation of power.

PSCI 4610. National Security Administration & Policy Making (3)

Study of national security decision-making with emphasis on the roles played by civilian executive officials, the military, Congress, and industry. Survey and critical analysis of American defense policy. Prerequisite: PSCI 1201. PSCI 3600 recommended.

PSCI 4620. International Dimensions of National Security Policy (3)

Study of contemporary international tensions and conflicts in their political, economic, and military aspects; the role of alliances and other security systems; disarmament and arms control;
strategic doctrines and national defense policies. Prerequisite: PSCI 1201. PSCI 3600 recommended.

PSCI 4630. Inter-American Affairs (3)

A study of political relations among the countries of the western hemisphere with particular emphasis on U.S.-Latin American relations. Prerequisite: PSCI 1201.

PSCI 4700. The Political Novel (4)

An examination of the ways in which political activity and belief give shape to certain novels, particularly in America.

PSCI 4940. Public Administration Internship (3)

Study of the scholarly and field dimensions of employment in public sector. This course is designed for students who are serving as interns in public agencies. (Formerly 4340) Prerequisites: PSCI 1201, 3300.

PSCI 4950. Selected Topics in Political Science (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of political science. Topics vary each term. Different topics may be taken for credit.

PSCI 4960. Senior Seminar (3)

Topics to be selected from one of the four major areas: Political Theory, Comparative Systems, International Relations, American Politics. May be repeated for a maximum of 6 units. Prerequisite: Consent of instructor.

PSCI 4970. Selected Topics offered during Winter Term (4)

PSCI 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 5 units. Prerequisite: Consent of instructor.
PSCI 5000. International Relations Seminar (4)

Research on an international relations topic, using political science and history methodology. (Topics to be specified in the class schedule.) To be taken concurrently with HIST 5000 International Relations Seminar. This course is primarily for the International Relations/History M.A. concentration, but is open to all qualified students.

PSCI 5970. Selected Topics offered during Winter Term (4)

PSCI 5980. Individual Study (1-4)

For postbaccalaureate students in Public Administration who seek advanced and specialized study. Prerequisites: Consent of instructor and approval of graduate adviser.

PSCI 5990. Thesis (1-6)

Thesis research. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of graduate adviser.
Psychology

Lewis E. Holt, Ph.D., Professor, Chair
W. Mack Goldsmith, Ph.D., Professor
V. Kenneth Shrable, Ph.D., Professor
Lee Ann Elliott, Ph.D., Associate Professor
Thomas A. Gentry, Ph.D., Associate Professor
Gary D. Novak, Ph.D., Associate Professor
Stanley E. Sherman, Ph.D., Associate Professor
James A. Wakefield, Jr., Ph.D., Associate Professor
Lewis M. Lewin, Ph.D., Assistant Professor
Cynthia L. Morgan, Ph.D., Assistant Professor
Jamie M. Yockey, Ph.D., Assistant Professor

The Department of Psychology offers the degrees Bachelor of Arts, Master of Arts, and Master of Science, Psychology. Concentrations in Clinical Psychology, Counseling Psychology, and School Psychology are available in the M.S. program. The objective of the major program is to provide for those who: (1) wish to extend their education in the liberal arts with an emphasis on psychology, (2) plan to enter a profession or occupation in which a strong background in psychology is necessary, or (3) wish to prepare for graduate work in psychology. The Department of Psychology also offers a minor in Psychology.

The College offers a Bachelor of Arts, Social Sciences, with an interdepartmental major in psychology and any other two disciplines within the social sciences. (For further information, see Social Sciences.)

REQUIREMENTS FOR BACHELOR OF ARTS, PSYCHOLOGY

Psychology majors are to:

1. Complete requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 30 upper division units, as approved by the major adviser; of these, no more than 8 units of CR graded Winter Term course work may apply toward the major.

Completion of a minor is not required.

DEGREE MAJOR IN PSYCHOLOGY

Prerequisites to the Major:

PSYC 2010. Introduction to Psychology, 3 units, or equivalent
PSYC 2020. Introduction to Psychological Methods, 3 units, or equivalent.

NOTE: This course is a prerequisite to all regular upper division psychology courses, but may be taken CONCURRENTLY with the following: PSYC 3130, 3310, and 3320.
### Required courses in supporting fields:

1. ANTH 2060. Introduction to Cultural Anthropology, 3 units  
   OR SOCL 1010. Introduction to Sociology, 3 units
2. BIOL 1010. Principles of Biology, 4 units  
   OR ZOOL 1050. Introduction to Zoology, 4 units

Recommended course in supporting field (see PSYC 3000 description):

MATH 1600. Statistics, 4 units

### The Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYC 3000</td>
<td>Experimental Methods &amp; Design</td>
<td>4</td>
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</tbody>
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At least 2 of the following courses with the associated laboratory:

- PSYC 3300, 3310. Introduction to Social Psychology (lec & lab), 4 units
- PSYC 3500, 3510. Perception and Cognition (lec & lab), 4 units
- PSYC 3700, 3710. Learning & Motivation (lec & lab), 4 units

Upper division courses in psychology as approved by major adviser: 18 units

Total: 30 units

Majors are normally expected to take a broad basic program consisting of at least 1 course from each of the following groups:

**Group I**
- PSYC 3130. Human Development, 3 units
- PSYC 3320. Introduction to Personality, 3 units
- PSYC 3340. Environmental Psychology, 3 units
- PSYC 4850. Psychology of Sex Differences, 3 units

**Group II**
- PSYC 3090. Comparative Animal Behavior, 3 units
- PSYC 3100. Introduction to Physiological Psychology, 4 units
- PSYC 4110. Behavior Genetics, 3 units
- PSYC 4520. Principles of Sensory Processes, 4 units
- PSYC 4720. Experimental Analysis of Behavior, 3 units

**Group III**
- PSYC 3160. Introduction to Psychological Testing, 3 units
- PSYC 3350. Introduction to Abnormal Psychology, 3 units
- PSYC 3790. Introduction to Counseling Theory, 3 units
- PSYC 4130. Psychological Disorders of Children, 3 units
- PSYC 4150. Learning Disabilities, 3 units
- PSYC 4750. Applied Behavior Analysis with Learning Handicapped, 3 units
- PSYC 4790. Behavioral Engineering, 3 units
Psychology

One or both of the following courses are strongly recommended for psychology majors intending to pursue graduate training and who wish to prepare for the Graduate Record Examination. These courses are also suitable for those who wish an integrative "finishing" course to the major:

PSYC 4020. History of Psychology, 3 units
PSYC 4900. Advanced General Psychology, 3 units

DEGREE MINOR IN PSYCHOLOGY

Eighteen units, to include at least 12 units in upper division.

Lower Division

PSYC 2010. Introduction to Psychology, 3 units
PSYC 2020. Introduction to Psychological Methods, 3 units

Upper Division

Courses as approved by minor adviser, 12 units

LIBERAL STUDIES CONCENTRATION IN PSYCHOLOGY

A liberal arts concentration in the area of Psychology must include the following course:

PSYC 2020. Introduction to Psychological Methods, 3 units

The student must also complete a minimum of 15 units of upper division psychology courses with at least two courses to be selected from Group I and one course from each of Groups II and III or Winter Term substitutions by advisement.

TEACHING CREDENTIALS

The major requirements in Psychology for students interested in obtaining a single subject teaching credential are the same as those listed for the Psychology major. Please refer to the Education section of the Catalog for a description of other requirements to be completed in obtaining a single subject credential.

LEARNING HANDICAPPED: SPECIAL EDUCATION CREDENTIAL

Students planning careers in the field of learning handicapped should consult with the credential adviser in the Department of Psychology regarding program requirements.

MASTERS OF ARTS IN PSYCHOLOGY

The M.A. program in Psychology is designed (1) to prepare students for advanced graduate work, or (2) for those students who desire a research-oriented program. (Admission to the program is competitive.)
Psychology

Minimum prerequisites for admission to the Master of Arts degree Program:

1. A bachelor's degree with 16 approved semester units in psychology, including a background in experimental and research skills. These courses must be acceptable to the Psychology Graduate Committee in terms of course content and student performance.
2. Superior performance in the undergraduate major (3.0 GPA).
3. Satisfactory performance on the Miller Analogies Test and Graduate Record Exam (General portion).
4. Choose an area of interest and a faculty member with whom you would like to work. Include a brief description of a sample problem you might choose as a thesis.
5. Three letters of recommendation.
6. Approval by the Psychology Department.

Continuation in the M.A. Degree Program:

1. Maintenance of a 3.0 in all courses attempted.
2. Full-time student status.

REQUIREMENTS FOR THE M.A. DEGREE

1. Completion of the appropriate 30 semester units.
   a. All students must complete:
      PSYC 5000. Proseminar I, 4 units
      PSYC 5010. Proseminar II, 4 units
      PSYC 5940. Field Work, 6 units
      PSYC 5990. Master's Thesis, 6 units
   b. The remaining 10 semester hours must be selected from the available 4000- and 5000-level catalog courses. These courses are to be selected with prior approval of the student's thesis committee. (PSYC 5780, 5900, 5910, and 5930 are not open to M.A. students.)
2. Satisfactory completion of the M.A. research including a public defense of the thesis.

MASTER OF SCIENCE IN PSYCHOLOGY

The primary purpose of the M.S. program in Psychology is to develop mastery of a substantial body of knowledge and skills for students planning careers in clinical, counseling, and school psychology. By selecting an emphasis in school psychology, a student can plan a program to complete requirements for the State School Psychology Credential. The student, in consultation with a faculty advising committee, develops a program of study appropriate to career interests and goals. (Admission to the program is competitive.) See the Psychology Department's Graduate Student Handbook, also.
Psychology

Minimum prerequisites for Admission to the Master of Science Degree Program:

1. A bachelor's degree with 16 approved semester units in psychology including a background in experimental and research skills. These courses must be acceptable to the Psychology Graduate Committee in terms of course content and student performance. Students without the approved courses may be accepted into unclassified graduate standing. Such students will be given the opportunity to make up background deficiencies commensurate with graduate criteria.
2. Superior performance in the undergraduate major (3.0 GPA).
3. Completion of a set of examinations which may be administered by the Psychology Department to determine those areas in which further preparation is required.
4. Approval by the Psychology Department.
5. Satisfactory performance on the Miller Analogies Test.

Continuation in the M.S. Degree Program:

1. Maintenance of a 3.0 GPA in all courses attempted.
2. Maintenance of satisfactory progress toward the degree.
3. An unclassified graduate student will not be admitted to classified graduate standing in psychology if the student has earned more than three units of graduate study graded less than "B." A classified graduate student in psychology will be dropped from classified standing upon receiving more than three units of graduate study graded less than "B." However, any graduate student may retake a course graded less than "B" for a higher grade, and a classified student must remove such grade deficits (in excess of three units) in the next semester or petition the Graduate Committee for a time extension if it is impossible to make up the deficit. In no case will more than three units of graduate study graded less than "B" be counted towards a Master's Degree.

REQUIREMENTS FOR THE M.S. DEGREE

1. All students are required to complete the appropriate 50 or more semester units or their equivalent.
2. All students complete the 34 core semester units listed in sections A, B, and C.
3. All students will complete a minimum of an additional 16 semester units chosen by the student with the advising committee and approved by the Graduate Committee. These courses will usually follow one of the special emphasis areas but may be specially selected to meet the student's unique career goal if the graduate committee approves. The graduate committee may require additional units.
Psychology

4. Students may satisfy any course requirements by demonstrating proficiency in the subject matter included in a required course. This will normally be done through challenge procedure or acceptable transfer credit.

A. Basic Requirements (10 units)

PSYC 5940. Field Work, 4 units
PSYC 5990. Master's Thesis, 6 units

B. General Principles (14 units)

PSYC 4720. Experimental Analysis of Behavior, 3 units
PSYC 4820. Group Dynamics Seminar, 3 units
PSYC 5000. Proseminar I (Applied Research Methods), 4 units
PSYC 5010. Proseminar II (Advanced Learning), 4 units

C. Clinical Principles (10 units)

PSYC 4360. Seminar in Clinical & Abnormal Psychology, 3 units
PSYC 4770. Introduction to Counseling Techniques, 3 units

and either

PSYC 5030. Psychodiagnosics I, 3 units
PSYC 5040. Psychodiagnosics I Laboratory, 1 unit

or

PSYC 5050. Psychodiagnosics II, 3 units
PSYC 5060. Psychodiagnosics II Laboratory, 1 unit

Normally the student will choose the additional 16 semester hours from one of the following groups. Students interested in the School Psychology Credential must complete all of the courses listed under the School Psychology heading.

CLINICAL PSYCHOLOGY CONCENTRATION

PSYC 4150. Learning Disabilities, 3 units
PSYC 4750. Applied Behavior Analysis with Learning Handicapped, 3 units
PSYC 4790. Behavioral Engineering, 3 units
PSYC 5130. Advanced Human Development, 3 units
PSYC 5640. Advanced Seminar in Behavior Change, 3 units
PSYC 5720. Behavioral Consultation, 2 units
PSYC 5910. Practicum in Counseling & Diagnostics, 2 units
PSYC 5930. Practicum in Behavior Modification, 2 units

SCHOOL PSYCHOLOGY CONCENTRATION

EDUC 4200. Teaching the Culturally Different, 3 units
EDUC 5760. Pupil Personnel Services Seminar, 2 units
PSYC 4150. Learning Disabilities, 3 units
PSYC 4750. Applied Behavior Analysis with Learning Handicapped, 3 units

OR PSYC 4790. Behavioral Engineering, 3 units
Psychology

PSYC 5050. Psychodiagnostics II, 3 units
PSYC 5060. Psychodiagnostics II Laboratory, 1 unit
PSYC 5130. Advanced Human Development, 3 units
PSYC 5720. Behavioral Consultation, 2 units
PSYC 5780. Advanced Counseling, 3 units
PSYC 5910. Practicum in Counseling & Diagnostics, 2 units
PSYC 5940. Field Work, 1 unit

COUNSELING CONCENTRATION

PSYC 5050. Psychodiagnostics II, 3 units
PSYC 5060. Psychodiagnostics II Laboratory, 1 unit
PSYC 5130. Advanced Human Development, 3 units
PSYC 5720. Behavioral Consultation, 2 units
PSYC 5780. Advanced Counseling, 3 units
PSYC 5790. Family Counseling Theory & Practice, 3 units
PSYC 5800. Marriage and Family Life, 3 units
PSYC 5900. Practicum in Marriage & Family Counseling, 2 units
PSYC 5910. Practicum in Counseling & Diagnostics, 2 units
PSYC 5980. Individual Study, 1-4 units

COURSE DESCRIPTIONS

Lower Division

PSYC 2010. Introduction to Psychology (3)

Scientific study of human behavior. This course or its equivalent is a prerequisite to all other courses in psychology, including all 2000-level courses.

PSYC 2020. Introduction to Psychological Methods (3)

Basic techniques and procedures for making systematic observations in a wide variety of psychological situations, both laboratory and field. Psychological methods demonstrated through topics of current research and application, and through demonstration-lab projects. Prerequisite: PSYC 2010 or equivalent.

PSYC 2950. Selected Topics in Psychology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of psychology. Topics may vary each term. Different topics may be taken for credit. Prerequisites: Consent of instructor and PSYC 2010 or equivalent.

PSYC 2970. Selected Topics offered during Winter Term (4)
Psychology

Upper Division

PSYC 2010 and PSYC 2020 or equivalents are prerequisites to all upper division psychology courses.

PSYC 3000. Experimental Methods and Design (4)

Provides a working knowledge of fundamental scientific methods in psychology, stressing the integration of laboratory methods, measurement theory and inferential statistical techniques, including introduction to analysis of variance. This course is a prerequisite to the two laboratory courses, chosen from PSYC 3300, 3510 or 3710, required of psychology majors. Prerequisites: PSYC 2020 and completion of the General Education requirement in Logic-Math-Statistics. MATH 1600 is strongly recommended to meet this requirement.

PSYC 3080. Comparative Animal Behavior Laboratory (1)

Laboratory experiments and field observation will focus upon the ways in which different species deal with the basic biological problem of foraging and feeding, defense, and reproduction. Prerequisite: PSYC 3090 or concurrent enrollment.

PSYC 3090. Comparative Animal Behavior (3)

A comparative study of behavior systems in animals and man. Stress is upon the social and developmental aspects of behavior. Prerequisite: BIOL 1010 or ZOOL 1050. Concurrent enrollment in PSYC 3080 not required.

PSYC 3100. Introduction to Physiological Psychology (4)

Relationship between behavior and physiological processes, particularly neurophysiological processes. (Lecture, 3 hours, laboratory 3 hours). Prerequisite: BIOL 1010 or ZOOL 1050.

PSYC 3120. Human Development Laboratory (1)

Systematic observation of human behavior at various stages of development. Prerequisite: Concurrent enrollment in PSYC 3130 or consent of instructor.

PSYC 3130. Human Development (3)

The psychology of development: infancy, childhood, adolescence, and maturity. Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3120 not required.

PSYC 3160. Introduction to Psychological Testing (3)

Basic, widely applicable principles of psychological testing.
Psychology

presented in a non-technical way, plus descriptions of representa­
tive types of psychological tests in common use. Prerequisite: PSYC 2020.

PSYC 3170. Early Cognitive Development (3)

Human behavior will be dealt with in naturalistic terms via
an examination of child intellectual development, with emphasis
on Piaget, Montessori, and other cognitive theorists. Prerequi­s­
site: PSYC 3130 or consent of instructor.

PSYC 3200. Psychology of Religion (3)

The course will focus on subjective and behavioral responses
to a variety of religions and other belief systems. Topics will
include the origins of religious belief, conversion, mystical
states, and the relation of religious commitment to personality
development, other social attitudes (e.g., prejudice), morals,
and mental health. (Formerly 2800)

PSYC 3300. Social Psychology Laboratory (1)

Laboratory and field studies to demonstrate the variety of
methods and content areas in social psychology. Prerequisites:
PSYC 3000 and concurrent or prior enrollment in PSYC 3310, or
consent of instructor.

PSYC 3310. Introduction to Social Psychology (3)

Interpersonal relations including social attitudes, opinions,
social structures, and group dynamics. Prerequisite: PSYC 2020.
Concurrent enrollment in PSYC 3300 not required.

PSYC 3320. Introduction to Personality (3)

Survey of the most influential approaches to the study and
understanding of personality with emphasis on comparison of
critical, theoretical issues. Prerequisite: PSYC 2020.

PSYC 3340. Environmental Psychology (3)

An empirical and theoretical review of the relationship between
the person and the physical environment. Topics to be discussed
include privacy, personal space, territoriality, and crowding.
Special emphasis will be placed on practical application in the
areas of architecture, environmental planning and design, and
population control. (Formerly 4310) Prerequisite: PSYC 2010
and 2020 (PSYC 2020 may be taken concurrently).

PSYC 3350. Introduction to the Study of Abnormal Behavior (3)

Abnormal behavior in man, stressing symptoms and dynamics of
Psychology

neuroses and psychoses. Prerequisites: PSYC 2020 plus 2 additional courses in psychology. PSYC 3130 and 3320 are recommended.

PSYC 3500. Introduction to Perception and Cognition (3)

Basic phenomena in the related areas of perception and cognition. Simple and complex responses to stimuli. Concepts such as form perception and organization, color illusions, space, attention and thinking processes, decision-making, thinking and language. Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3510 not required.

PSYC 3510. Perception and Cognition Laboratory (1)

Laboratory experience in phenomena related to perception and cognition. (Formerly 3490) Prerequisites: PSYC 3000 and concurrent or prior enrollment in PSYC 3500, or consent of instructor.

PSYC 3700. Introduction to Learning and Motivation (3)

Basic phenomena of learning and motivation such as: instrumental and classical conditioning, stimulus generalization, verbal learning, transfer and retention, drives, rewards, and punishment. Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3710 not required.

PSYC 3710. Learning and Motivation Laboratory (1)

Laboratory experiments within the framework of human (e.g., verbal) learning for the purpose of introducing and implementing predominant statistical techniques associated with this area (i.e., analysis of variance, factorial designs, planned comparisons). (Formerly 3690) Prerequisites: PSYC 3000 and concurrent or prior enrollment in PSYC 3700, or consent of instructor.

PSYC 3790. Introduction to Counseling Theory (3)

Introduction to major theories of counseling. Demonstrations and review of current literature. Prerequisite: PSYC 3310 or 3320.

PSYC 4020. History of Psychology (3)

Trends of thought, development of psychology as a discipline with leaders, schools, and issues. Prerequisites: PSYC 2020 and two upper division courses in psychology, or consent of instructor.

PSYC 4110. Behavior Genetics (3)

Evaluation of the genotypic contribution to human and animal behavior. Special emphasis on the interaction between genotype and environment during development. (Formerly 3110) Prerequisite: BIOL 1010 or ZOOL 1050.
Psychology

PSYC 4130. Psychological Disorders of Children (3)

A review of theories and treatment techniques dealing with a broad range of childhood disorders, including autism, childhood schizophrenia, mental subnormality, and psychophysiological problems. A behavioral approach, based on empirical evidence, will be emphasized. Prerequisite: PSYC 3130.

PSYC 4150. Learning Disabilities (3)

Overview of the major categories of learning disabilities including educationally retarded and behavior disorders. Survey of instructional programs and review of supportive data for those programs. Prerequisite: PSYC 3130 or consent of instructor.

PSYC 4360. Seminar in Clinical and Abnormal Psychology (3)

Survey of theory and research in clinical and abnormal psychology, with emphasis on diagnosis and treatment systems. Prerequisites: PSYC 3130 or 3320, 3350, and consent of instructor.

PSYC 4520. Principles of Sensory Processes (4)

The psychophysical analysis of spatial and temporal properties of the human senses. (Lecture, 3 hours; laboratory, 3 hours). (Formerly 3520) Prerequisite: BIOL 1010 or ZOOL 1050.

PSYC 4720. Experimental Analysis of Behavior (3)

Study of advanced application and methods in operant research, including practical experience in both laboratory and institutional settings. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: PSYC 2020.

PSYC 4750. Applied Behavior Analysis with Learning Handicapped (3)

Application of learning principles to educational and behavioral problems of individuals. Prerequisites: PSYC 4150 and 4720.

PSYC 4770. Introduction to Counseling Techniques (3)

Training in basic counseling skills. Prerequisites: PSYC 3790, senior standing, and consent of instructor.

PSYC 4790. Behavioral Engineering (3)

Interpretation of learning theory principles and research in the design, implementation, and evaluation of educational and pro-social programs. (Formerly 4780) Prerequisite: PSYC 4720.
PSYC 4820. Group Dynamics Seminar (3)

A critical review of theory, research, and practice related to group behavior, including factors influencing communication, decision-making, group cohesiveness, and productivity. Prerequisites: PSYC 3000 and 3310, or consent of instructor.

PSYC 4850. Psychology of Sex Differences (3)

Critical study of research and theory relating to sex differences in personality and behavior patterns, the biological and social bases for sex differences, and the potential for role change. Prerequisites: PSYC 2020 and one upper division course in psychology.

PSYC 4900. Advanced General Psychology (3)

Review of the major content areas of psychology. Synthesis of concepts, facts, and methods studied in specialized upper division courses. Prerequisites: At least two 4000-level psychology courses and senior standing or consent of instructor.

PSYC 4940. Field Work in Psychology (1-2)

Work of a psychological nature performed in schools, agencies, and institutions under joint supervision of the department and agency where assigned. May be repeated for a total of 6 units, 2 of which can be applied to the major. Prerequisites: PSYC 2020 and prior consent of instructor.

PSYC 4950. Selected Topics in Psychology (Topics to be specified in Class Schedule) (1-5)

Development of a specific area in psychology. Topics will vary depending on instructor. Different topics may be taken for a total of 6 units. Prerequisite: Prior consent of instructor.

PSYC 4970. Selected Topics offered during Winter Term (4)

PSYC 4980. Individual Study (1-4)

For students capable of independent work and desirous of undertaking specialized study. May be repeated for a total of 6 units. Prerequisite: Prior consent of instructor.

Graduate

PSYC 5000. Proseminar I (4)

Advanced seminar in psychological research methods and statistical analysis. Includes a formal research paper on an applied
Psychology

topic such as evaluation of an institution-related program. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: PSYC 3000 or consent of instructor, and graduate standing.

PSYC 5010. Proseminar II (4)

Study of advanced principles of learning and motivation with special reference to human learning. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: Graduate standing and consent of instructor.

PSYC 5030. Psychodiagnosics I (3)

Strategies of diagnostic evaluation with emphasis upon instruments for evaluating of intelligence, aptitudes, personality, and interests of adolescents and adults. Prerequisites: PSYC 3160, classified graduate standing, consent of instructor, and concurrent enrollment in PSYC 5040.

PSYC 5040. Psychodiagnosics I Laboratory (1)

Supervised work with the application of diagnostic strategies to representative cases. Prerequisite: Concurrent enrollment in PSYC 5030.

PSYC 5050. Psychodiagnosics II (3)

Strategies of diagnostic evaluation with emphasis upon instruments for evaluation of intelligence, achievement, learning abilities, and emotional adjustment of preschool and school age children. Prerequisites: PSYC 3160, classified graduate standing, consent of instructor, and concurrent enrollment in PSYC 5060.

PSYC 5060. Psychodiagnosics II Laboratory (1)

Supervised work with the application of diagnostic strategies to representative cases. Prerequisite: Concurrent enrollment in PSYC 5050.

PSYC 5070. Practicum in Childhood Diagnostics & Intervention (2)

A minimum of 6 diagnostic reports, including remedial recommendations, will be completed. At least 3 of the cases will be followed completely through intervention. Students will receive one hour per week of individual supervision. Work will be done through the Learning Skills Clinic. Prerequisites: PSYC 5050, 5060, and consent of instructor.

PSYC 5130. Advanced Human Development (3)

Empirical research on theoretical constructs of human development. Prerequisites: PSYC 3130 or equivalent and four upper division courses in psychology and graduate standing.

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PSYC 5640. Advanced Seminar in Behavior Change (3)

Study of current theories and research in behavior therapy. Prerequisites: PSYC 4720, consent of instructor, and graduate standing. PSYC 4750 or 4790 recommended.

PSYC 5720. Behavioral Consultation (2)

Supervised work for consultation with classroom teachers. Prerequisites: Classified graduate standing and consent of instructor.

PSYC 5780. Advanced Counseling (3)

Counseling practices including commonly used methods of psychotherapy and practice in techniques of counseling. Prerequisites: PSYC 3790, 4770, and classified graduate standing.

PSYC 5790. Family Counseling Theory and Practice (3)

Study of theory and techniques of conjoint family therapy with consideration of such topics as parent-child relationships, human sexuality, and combined families. Prerequisites: PSYC 3790, 4770, and graduate standing.

PSYC 5800. Marriage and Family Life (3)

The study of marriage with special reference to cross-cultural mores and values, marital law, communication in marriage, and current social problems relevant to the marital relationship. Prerequisite: Graduate standing.

PSYC 5900. Practicum in Marriage and Family Counseling (2)

Supervised experience in conjoint family and marriage techniques. A minimum of four counseling cases (couple or family) will be seen by each student. Emphasis will be on improved communication, goal setting, and contracts within families. Students will make a minimum of two formal written and oral presentations per semester to the faculty and fellow graduate students in case conferences. The student will also attend one formal supervision session per week with a designated instructor. Prerequisite: PSYC 5910.

PSYC 5910. Practicum in Counseling and Diagnostics (2)

Supervised experience in diagnostic testing and individual counseling. There will be a minimum of four diagnostic workups and two continuous individual cases. Students will make a minimum of two formal written and oral presentations per semester to the faculty and fellow graduate students in case conferences. This
Psychology

course is the first in a sequence to be followed by PSYC 5930 or 5970, or both. Prerequisites: PSYC 3160, 4770, 5030, graduate standing, and the consent of instructor.

PSYC 5930. Practicum in Behavior Modification (2)

Supervised experience in the assessment and modification of behavior with an emphasis on the conditioning of the behavior of children. A minimum of three cases will be seen with formal reports of assessment and change data. Students will make a minimum of two written and oral presentations per semester to the faculty and fellow graduate students in case conferences. The student will also attend one formal supervision session per week with the designated instructor. Prerequisite: PSYC 5910.

PSYC 5940. Field Work (1-4)

Work of a psychological nature performed in schools, agencies, and institutions under joint supervision of the college and agency where assigned. May be repeated for a total of 6 units. Prerequisites: Graduate standing and prior consent of instructor.

PSYC 5950. School Psychology Internship (1-4)

Work experience as a supervised School Psychologist. Joint supervision by district and college personnel. May be repeated for two semesters. Prerequisites: Admission to School Psychology MS program, PPS credential, employment in approved internship program, and approval by School Psychology Coordinator.

PSYC 5960. Seminar in Applied Psychology (3)

This course is designed to provide advanced graduate students and practicing professionals with exposure to advanced counseling and diagnostic techniques. Topics will range across a broad spectrum of issues and techniques in applied psychology. Included will be such topics as advanced testing methods, program evaluation, and special therapy techniques. May be taken for a total of 6 units. Prerequisite: Consent of instructor.

PSYC 5970. Selected Topics offered during Winter Term (4)

PSYC 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced and specialized study. Different topics may be taken for a total of 6 units. Exception to the 6-unit limit may be granted by the Graduate Committee. Prerequisite: Prior consent of instructor.

PSYC 5990. Master's Thesis (1-6)

Preparation of a thesis in area of specialty for partial fulfillment of requirements. Prerequisite: Admission to classified graduate standing.
Public Administration

Graduate Studies Committee

Lawrence L. Giventer, Ph.D., Assistant Professor
of Political Science, Acting Director
William Dale Crist, Ph.D., Professor of Economics
William E. Neeley, Visiting Lecturer in
Political Science

Graduate Studies in Public Administration is a comprehensive program in professional graduate level study which leads to the Master of Public Administration degree. The program is jointly offered by the Departments of Political Science and Economics. Its purpose is the education and training of administrators and policy analysts to pursue leadership and management careers in the public service. It serves both the public service professional who seeks additional advanced education and training and the full-time student preparing for a career in public service. Program courses are offered at two instructional centers--on campus in Turlock and in Stockton.

The program is designed to meet the unique needs and challenges of public management in a regional environment characterized by pockets of urban growth within a predominantly rural region.

ADMISSION REQUIREMENTS

1. A baccalaureate degree from an accredited college or university
2. A GPA of 2.5 in the last 60 semester units attempted
3. Three letters of recommendation
4. Evaluation and approval of application by the Graduate Studies Committee in Public Administration

REQUIREMENTS FOR THE MASTER OF PUBLIC ADMINISTRATION DEGREE

1. Unit Requirement

All students are required to complete a minimum of 30 semester units of upper division and graduate courses and seminars.

A minimum of 15 of these units must be in graduate courses and seminars.

2. Course Requirement

All students are required to complete the following four courses:
Public Administration

PADM 5000. Administration in Public Affairs, 3 units
PADM 5005. Public Finance/Fiscal Policy, 3 units
PADM 5010. Quantitative Analysis, 3 units
PADM 5015. Public Policy Analysis, 3 units

Students who have not had formal study in politics, economics or mathematics-statistics may be advised to take basic courses in these fields prior to engaging them at the graduate level.

All students will complete in addition to the above-noted required courses a minimum of 18 elective units (in the 4000-5000 series) chosen by the student in consultation with his/her adviser. These electives will permit some specialization and may be selected to meet each student's own career needs.

3. Grade Requirements

No grade less than a "B" is acceptable for the completion of a core course. A student who receives less than a "B" in a core course must take the course again. Any student who takes the same core course twice and does not receive a "B" or better will be dropped from the program.

No course with a grade below "C" may apply toward completion of the M.P.A.

Any student who completes more than two courses with a grade of "C" or below will be dropped from the program.

Any student who receives a grade lower than "C" will have his/her performance reviewed by the graduate studies committee and may be dropped from the program.

No course which is to be counted toward the degree may be graded credit/no credit, with the one exception of PSCI 4940, Public Administration Internship.

4. Public Service Internship (elective)

A public service internship program is operated as a joint endeavor of Graduate Studies in Public Administration and the Political Science Department. They coordinate the establishment of positions and standards of experiential internship education with local, county, regional, state, and federal administrative agencies or political offices.

An internship generally involves part-time work for at least six months with a public sector organization. The intern works on agency assignments under the supervision of agency personnel while maintaining close liaison with the faculty internship program coordinator. As a general rule, interns will be paid by the sponsoring agency.
Public Administration

Interns are required to take PADM 5000, Administration in Public Affairs, and PSCI 4940, Public Administration Internship. Internship experience can be a valuable start to a professional career for the pre-service public administration student. Your academic adviser or the faculty internship program coordinator will be able to provide further specific information and guidance.

5. Thesis and Examination Requirement

All students are required to complete successfully one of the following options in partial fulfillment of the degree requirements:

a. A written thesis with oral examination
b. A written comprehensive examination

The option is to be selected by the student in consultation with his/her adviser.

6. Candidate Evaluation

The degree may be awarded to a student, who has advanced to candidacy, upon certification of successful completion of the required unit and course work, approval of a thesis and successfully passing the oral examination or successfully passing the written comprehensive examination, and a review and approval of the candidate's overall graduate record by the Graduate Studies Committee.

MASTER OF PUBLIC ADMINISTRATION DEGREE

REQUIRED COURSES

- PADM 5000. Administration in Public Affairs, 3 units
- PADM 5005. Public Finance/Fiscal Policy, 3 units
- PADM 5010. Quantitative Analysis, 3 units
- PADM 5015. Public Policy Analysis, 3 units

ELECTIVE COURSES

- PADM 5100. Organizational & Administrative Theory, 3 units
- PADM 5105. Group Dynamics, 3 units
- PADM 5110. Public Personnel Administration, 3 units
- PADM 5120. Collective Bargaining in the Public Sector, 3 units
- PADM 5200. Public Agency Budgeting, 3 units
- PADM 5300. Urban/Regional Planning, 3 units
- PADM 5400. Modeling & Simulation for Policy Analysis, 3 units
- PADM 5500. Administrative Law & Public Policy, 3 units
- PADM 5505. Intergovernmental Relations, 3 units
- PADM 5800. Seminar in Problems of Public Administration, 1-5 units
Public Administration

PADM 5980. Individual Study, 1-4 units
PADM 5990. Thesis, 1-6 units
PSCI 4200. Problems in Civil Liberties, 3 units
PSCI 4315. Public Policy Making, 3 units
PSCI 4330. Urban Politics, 4 units
PSCI 4420. Comparative Bureaucracies, 3 units
PSCI 4940. Public Administration Internship, 3 units
ECON 4100. Labor Economics, 3 units
ECON 4300. Mathematical Economics, 3 units
ECON 4430. International Economic Policies, 3 units
ECON 4550. Taxation & the American Economy, 3 units
ECON 4600. Urban Economics, 3 units
BUS 4780. Management Information Systems, 3 units
GEOG 4300. Geography of Resource Planning, 3 units
GEOG 4350. Urban Geography, 3 units
MATH 4460. Introduction to Operations Research II, 4 units
SOCL 4140. Sociology of Law, 3 units
SOCL 4250. Criminal Justice II, 3 units

Other 4000- or 5000-level courses, besides those listed here, may also be taken as electives toward the M.P.A. degree if deemed relevant and approved in writing by your graduate adviser.

COURSE DESCRIPTIONS

PADM 5000. Administration in Public Affairs (3)

A graduate introduction to the problems, principles, and theory encountered in the profession of public administration. Specific areas that will be covered include the relationship between bureaucratic and democratic theory, organization structure, policy-making, personnel administration, fiscal and budgetary processes, and administrative regulation. (Formerly PSCI 5801)

PADM 5005. Public Finance/Fiscal Policy (3)

An analysis of budgetary process, expenditure policy, debt policy, intergovernmental fiscal relations, and taxation on the federal, state, local, and county levels of government. (Formerly ECON 5850)

PADM 5010. Quantitative Analysis (3)

A study of the basis of empirical research, the collection and analysis of quantitative data for the purpose of decision making. (Formerly PSCI 5870) Prerequisite: An introductory course in social science methodology or statistics or consent of instructor.
PADM 5015. Public Policy Analysis (3)

A study of processes by which public policy is formulated, implemented, and evaluated. Emphasis will be placed on increasing understanding and developing skills of critical assessment and inquiry about policies with respect to a) the development of courses of action for problem resolution, b) the environmental context of policy actions, c) the application/administration of public policy, d) methods for the assessment of resultant impacts and consequences of policy actions. (Formerly PSCI 5860) PADM 5000 and PADM 5010 recommended.

PADM 5100. Organizational and Administrative Theory (3)

Examination of the development and current emphases in organization theory from scientific management to existentialism. Focus will be on the use of theory in public management.

PADM 5105. Group Dynamics (3)

An experiential workshop using a skill-building approach towards improved interpersonal and group relationships and knowledge of communications theory and processes.

PADM 5110. Public Personnel Administration (3)

An intensive overview of the personnel functions of public management. Topics will include staffing, training and development, merit systems, labor relations, equal employment opportunity and affirmative action, and job evaluation.

PADM 5120. Collective Bargaining in the Public Sector (3)

General survey of employer-employee relations in the public sector. Particular attention paid to developments in public employee collective bargaining legislation and present state of the art of negotiations for conflict resolution in the public sector. (Formerly ECON 5110) Prerequisite: Classified graduate standing in the MPA program.

PADM 5200. Public Agency Budgeting (3)

This course will cover line-item, performance, and program budgets at various governmental levels with emphasis on the local level. Tie-ins with capital budgets, fiscal and land-use models, capital improvement master plans, and in-house as well as independent analysis will be reviewed. (Formerly ECON 5660) PADM 5005 recommended.
Public Administration

PADM 5300. Urban/Regional Planning (3)

The structure and role of urban and regional planning; the planning process, policy tools, planning models, urban indicators, growth limits, and policy objectives. (Formerly ECON 5650)

PADM 5400. Modeling and Simulation for Policy Analysis (3)

Investigation of the methodology of modeling and computer simulation as applied to social systems and complex organizational/administrative problems in the public sector. Specific attention will be addressed to the problem of model building, forecasting public policy consequences, and assessment of simulation validity and usefulness. Prior knowledge of computer programming and applications is NOT required. (Formerly PSCI 5830) Prerequisite: Graduate standing.

PADM 5500. Administrative Law and Public Policy (3)

Examination of the basic principles of constitutional and administrative law, leading cases, judicial decisions affecting powers, procedures and processes of governmental agencies, e.g., decision-making processes in execution of administrative legislation, adjudication and discretion duties, and the rights and liabilities of public officials.

PADM 5505. Inter-Governmental Relations (3)

An examination of the complex network of inter-relationships of the American federal system. Focus will be on how local governments interact with other local governments, and with regional, state, and federal agencies.

PADM 5800. Seminar in Problems of Public Administration (1-5)

Analysis of selected topics in public administration. Topics may vary each semester. Such topics may include, e.g., professionalism, public policy, and politics; urban area administration and policy; social science implications in public policy. Prerequisite: Classified graduate standing in the MPA program.

PADM 5980. Individual Study (1-4)

For postbaccalaureate students in public administration who seek advanced and specialized study. Prerequisites: Consent of instructor and approval of graduate adviser.

PADM 5990. Thesis (1-6)

Thesis research. To be repeated for a total of 6 units. Prerequisites: Classified graduate standing in MPA program, consent of instructor, and approval of graduate adviser.
Social Sciences
Britten Dean, Ph.D., Coordinator

The Bachelor of Arts, Social Sciences, an interdepartmental degree program, consists of anthropology, economics, ethnic studies, geography, history, political science, psychology, sociology, speech communication.

A student majoring in social sciences may select one of the following options:

1. A program of courses in three fields of interest, selected as shown under "Requirements" below.
2. A program consisting of one of the following concentrations:
   - Administration of Justice (see p. 103)
   - International Studies (see p. 313)
   - Urban and Community Studies (see p. 455)
3. A program designed for teaching credential candidates who wish to major in the social sciences.

REQUIREMENTS FOR BACHELOR OF ARTS, SOCIAL SCIENCES

Social sciences interdepartmental majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the lower division breadth requirements, as specified below.
3. Complete the major of not less than 35 upper division units, as approved by the adviser, and distributed as follows:
   - SSCI 3000. Library Resources for the Social Sciences, 2 units
   - SSCI 4960. Social Sciences Interdisciplinary Seminar, 3 units
   - 4 courses in the discipline of student's major interest
   - 3 courses in a second discipline
   - 3 courses in a third discipline
   - 12 courses of not less than 35 upper division units; of these no more than 8 units of CR-graded Winter Term course work may apply toward the major.

A student on entering the social sciences major should work out with his/her adviser a tentative program for the remainder of the undergraduate course. Thenceforth, a trial study list should be worked out prior to each advising appointment. In such a broad major, close cooperation between adviser and advisee is necessary if mistakes are to be avoided.

A. Lower division breadth requirements.
   Students will take one course in Area 7 and one course in each of three other areas:
Social Sciences

1. Environment:
   GEOG 2010. Introduction to the Physical Environment, 3 units, OR
   GEOG 2400. World Regional Geography I, 3 units, OR
   GEOG 2410. World Regional Geography II, 3 units

2. Culture:
   ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World, 3 units, OR
   ANTH 2060. Introduction to Cultural Anthropology, 3 units

3. Social Organization:
   SOCL 1010. Introduction to Sociology, 3 units, OR
   SOCL 2240. Social Problems, 3 units

4. Personality:
   PSYC 2010. Introduction to Psychology, 3 units, OR
   PSYC 3200. Psychology of Religion, 3 units

5. Social Control:
   SPCH 2011. Approaches to Human Communication, 4 units, OR
   SPCH 2102. Group Discussion Processes, 3 units

6. Economic Organization:
   ECON 2500. Principles of Economics I, 4 units, OR
   ECON 2510. Principles of Economics II, 4 units

7. The Social Sciences as science:
   HIST 3000. Introductory Seminar in History, 3 units, OR
   PSCI 2000. Introduction to Political Science, 3 units, OR
   PSYC 2020. Introduction to Psychological Methods, 3 units, OR
   SOCL 2030. Research Methods, 4 units

B. Upper division major.
   Complete 4 courses in one of the following disciplines and 3 courses each in two others, as approved by the adviser.
   Note: Some of these disciplines require additional lower division introductory course work not already specified in Section A above. Students will select courses from the 3 preferred disciplines according to the following rules:
ANTHROPOLOGY: Any upper division course may be selected, with the adviser's consent. Note additional prerequisites to certain courses. Options available are:

1. General Anthropology
2. Ethnography
3. Ethnology
4. Advanced Prehistoric Archaeology
5. Advanced Physical Anthropology
6. Linguistics
7. Special Studies

ECONOMICS: Upper division courses: Select one course each from three or four of the following fields:

1. Economic Theory and Doctrines
2. Money and Banking
3. Public Finance and Fiscal Policy
4. Labor Economics
5. International Economics
6. Economic History

ETHNIC STUDIES: Prerequisite: One of the following:

ETHS 2000. Contemporary Black Studies, 3 units
ETHS 2100. Contemporary Chicano Studies, 3 units
ETHS 2200. Contemporary Asian American Studies, 3 units
ETHS 2300. Contemporary Native American Studies, 3 units

Upper division courses: both 1 and 2

1. ETHS 4200. The Minority Experience, 3 units
2. Two or three of the following, to total a minimum of 6 units as approved by the adviser

ETHS 4000. Mexican-American Family, 3 units
ETHS 4010. The Black American Family, 3 units
ETHS 4100. Blacks and the American Education System, 3 units
ETHS 4110. Social & Psychological Perspectives of the Black American, 3 units
ETHS 4940. Field Work in Ethnic Studies, 4 units
ETHS 4950. Selected Topics in Ethnic Studies, 1-5 units
ETHS 4960. Seminar in Ethnic Studies, 3 units
ETHS 4970. Selected Topics offered during Winter Term, 4 units
ETHS 4980. Individual Study, 1-4 units
Social Sciences

GEOGRAPHY: Upper division courses: options available include:

1. Topical human geography
2. Topical physical geography
3. Regional geography
4. Methodology in geography

Students must take at least one course from either topical (human or physical) geography or methodology in geography, and at least one course from regional geography.

HISTORY: Prerequisite: A one-year sequence of lower division history: U.S. History, Western Civilization, or Non-Western History.

All students electing history as their field of major interest must take HIST 3000, Introductory Seminar. Courses should be selected in such a way that the student will have had at least one course, in either upper or lower division, in each of the following fields:

1. European History
2. United States History
3. Non-Western History

POLITICAL SCIENCE: Upper division courses:

1. American Politics: Students will select 2 courses at the 3000-level.
2. Additional courses are to be selected from the following:
   a. Political Theory & Methodology
   b. Comparative Politics
   c. International Relations

PSYCHOLOGY: Prerequisites, both a and b:

a. PSYC 2010. Introduction to Psychology, 3 units
b. PSYC 2020. Introduction to Psychological Methods, 3 units,
   OR
   SOCL 2030. Research Methods, 4 units
SOCIOLOGY:

Upper division courses: Three courses from the following (four courses if field of major interest):

PSYC 3130. Human Development, 3 units
PSYC 3170. Early Cognitive Development, 3 units
PSYC 3310. Introduction to Social Psychology, 3 units
PSYC 3500. Introduction to Perception and Cognition, 3 units
PSYC 3700. Introduction to Learning and Motivation, 3 units

Prerequisite: SOCL 1010, Introduction to Sociology, 3 units

Any upper division course may be selected with the adviser's consent. Options available to the student include courses in:

1. Human services
2. Corrections
3. General sociology--theory and methods

(SPEECH) COMMUNICATION STUDIES:

Prerequisite: SPCH 2011. Approaches to Human Communications, 4 units

Upper division courses to be selected from the following areas:

1. Basic systems and processes: language and communication
2. Interpersonal communication

TEACHING CREDENTIAL

Majors in Social Sciences interested in the multiple subject credential are referred to the Education section of the catalog for a description of the requirements for this teaching credential.

To qualify for a subject matter waiver for a single subject credential in the social sciences, the student may follow either Option I or Option II.
Option I.*

Complete the social sciences major of lower division breadth requirements plus 35 upper division units, as described in Sections A and B above.

Option II.*

1. Complete the lower division breadth requirements specified in Section A above.
2. Complete the major in any one of the social science disciplines for a minimum of 24 upper division units.
3. Complete 3 upper division courses in a second social science discipline (minimum 9 units).

**COURSE DESCRIPTIONS**

**SSCI 3000. Library Resources for the Social Sciences (2)**

A survey of the various library resources necessary for the research of the social sciences, that is, abstracts, indexes, bibliographies, dictionaries, encyclopedias, handbooks, government documents, together with footnote and bibliographical citation techniques. Prerequisite: None.

**SSCI 4960. Social Sciences Interdisciplinary Seminar (3)**

Discussions and papers based on concepts, theories, information and techniques from several social science disciplines. Prerequisite: Completion of SSCI 3000 and 7 other upper division courses in the major.

**SSCI 5950. Selected Topics in the Social Sciences (Topics to be specified in Class Schedule) (1-5)**

Innovative course of study. Topic varies from semester to semester. Different topics may be taken for credit.
Sociology

Joseph A. Novack, Ph.D., Associate Professor, Chair
Antonio O. Donini, Ph.D., Professor
Donald W. Bowers, Ph.D., Associate Professor
George D. Muedeking, Ph.D., Associate Professor
Frank J. Tripi, Ph.D., Associate Professor
Walter E. Doraz, Ph.D., Assistant Professor
Phillis T. Fox, Ph.D., Assistant Professor
Sally Gorelnik, Ph.D., Assistant Professor
Michael H. Moynihan, Ph.D., Assistant Professor

The Department of Sociology offers the Bachelor of Arts, Sociology. The major is offered to those who desire a comprehensive and meaningful academic experience. By its nature, the study of sociology provides significant insights into the nature of human behavior and human societies. In contemporary society, problems of human relationships are not only the most crucial, but the most challenging.

For the interested student, the programs in sociology offer preparation for careers in the most exciting and challenging problems of the future. Students arrange programs which lead to careers in many areas of community, public, and social services, corrections and rehabilitations, teaching, industrial and organizational activities, research, and continued academic work for advanced degrees.

A concentration in the Administration of Justice is serviced by the Sociology Department. Complete information on that program is available in the Social Sciences section of this catalog.

The College also offers the degree of Bachelor of Arts, Social Sciences. Those interested in this degree select an interdepartmental major in sociology and any two areas within the social sciences. (For additional information, see Social Sciences.)

REQUIREMENTS FOR THE BACHELOR OF ARTS, SOCIOLOGY

Sociology majors are to:

1. Complete requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 30 upper division units, of which no more than 8 units of CR graded course work may apply toward the major. A grade of "C" or better must be received in all prerequisite courses; A "C" or better average must be maintained in the major.

Completion of a minor is not required.
### Sociology

#### DEGREE MAJOR IN SOCIOLOGY

**Lower Division Requirements**
- SOCL 1010. Introduction to Sociology, 3 units
- SOCL 2030. Research Methods, 4 units

**Upper Division Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory &amp; Methodology (3000, 3030, 3410, 4410, 4960)</td>
<td>16</td>
</tr>
<tr>
<td>Electives from sociology</td>
<td>16</td>
</tr>
</tbody>
</table>

**DEGREE MINOR IN SOCIOLOGY**

Nineteen units approved by the adviser, including SOCL 1010, 2030, either 3000 or 3410, and 9 units of upper division electives.

#### TEACHING CREDENTIALS

Majors in Sociology interested in a Social Sciences waiver for a single subject credential should review Plan II of the Social Sciences waiver described in the Social Sciences section of the catalog. Please refer to the Education section of the catalog for a description of other requirements to be completed for the single subject credential.

#### CONCENTRATION IN CORRECTIONS WITHIN THE DEGREE MAJOR

A concentration in criminal corrections will provide recognition for sociology majors who have had more specialized preparation for a particular vocation than the general major provides. Since a career in criminal corrections is sought by many sociology majors this concentration will serve their interests more specifically than the general major.

Complete the prerequisites to the major, the additional prerequisites to the elective concentration, the requirements for the major, and the requirements for this concentration.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCL 3000. History of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 3030. Research Techniques &amp; Analytic Procedures</td>
<td>4</td>
</tr>
<tr>
<td>SOCL 3410. Modern Sociological Theory I</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4410. Modern Sociological Theory II</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4960. Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

#### The concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCL 4120. Sociology of Crime &amp; Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4130. Sociology of Correction</td>
<td>4</td>
</tr>
<tr>
<td>SOCL 4140. Sociology of Law</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4150. Sociology of Probation &amp; Parole</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4940. Field Experience--Immersion Semester</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total** | 35
The concentration in Human Services brings sociological theory and methods to bear on the issues and problems of human services. The concentration supplies a valuable conceptual framework for students considering careers in such fields as mental health, rehabilitation, social gerontology, and health services utilization, and for students planning to enter graduate social work programs. In addition to providing students with a solid background in sociological theory and methods, the concentration allows students to examine the nature of institutions and social organizations and its influence on current problem areas such as social welfare and alcoholism.

Students must complete the lower division requirements for the sociology major, the upper division requirements for the sociology major, and the requirements for the Human Services concentration.

**Upper Division**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCL 3000</td>
<td>History of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 3030</td>
<td>Research Techniques &amp; Analytic Procedures</td>
<td>4</td>
</tr>
<tr>
<td>SOCL 3410</td>
<td>Modern Sociological Theory I</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4410</td>
<td>Modern Sociological Theory II</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4960</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Units Total:** 16

**The concentration**

**Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCL 3720</td>
<td>Social Welfare Services</td>
<td>3</td>
</tr>
<tr>
<td>SOCL 4940</td>
<td>Field Experience - Immersion</td>
<td>6</td>
</tr>
</tbody>
</table>

**Select one course from each of the following groups:**

1. | SOCL 3150. The Family | 3 |
   | SOCL 3160. Sociology of Youth | 3 |

2. | SOCL 4700. Medical Sociology | 3 |
   | SOCL 4710. Sociology of Aging | 3 |
   | SOCL 4720. Sociology of Death | 3 |
   | SOCL 4730. Alcohol and Alcoholism | 3 |

3. | SOCL 4800. Formal Organizations | 3 |
   | SOCL 4850. The Community | 3 |

**Units Total:** 34
Sociology

LIBERAL STUDIES CONCENTRATION IN SOCIOLOGY

Liberal studies majors with a concentration in sociology must complete 20 units of sociology courses including 15 units of upper division courses; three of these courses must be selected from the following: SOCL 3010, Race & Ethnic Relations; SOCL 3160, Sociology of Youth; SOCL 3150, The Family; SOCL 4000, Sociology of Education; and SOCL 4800, Formal Organizations.

GRADUATE WORK IN SOCIOLOGY

The department works closely with the Department of Psychology in offering graduate courses which are included in the Master of Science in Psychology program. Those graduate students who select the Correctional Psychology concentration are offered 20 units of graduate work in the areas of crime and corrections.

COURSE DESCRIPTIONS

Lower Division

SOCL 1010. Introduction to Sociology (3)

Basic concepts and perspectives in sociological analysis. Prerequisite to other sociology courses.

SOCL 2030. Research Methods (4)

Introduction to research design and methodology in sociology: theory, implications of theoretical framework, hypothesis formation, conceptualization and measurement of sociological variables, research process, research designs, methods of data collection, sampling procedures, and written report. Prerequisite: SOCL 1010 or equivalent.

SOCL 2240. Social Problems (3)

The causes and consequences of selected social problems in contemporary American society are examined.

SOCL 2950. Selected Topics in Sociology (Topics to be specified in Class Schedule) (1-5)

Development of a selected area of sociology. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

SOCL 2970. Selected Topics offered during Winter Term (4)
Sociology

Upper Division

SOCL 3000. History of Sociology (3)

The emergence of sociology from social philosophy and the historical development of sociological thought. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3010. Race and Ethnic Relations (3)

Sociological analysis of minority group relations; attention to specific racial, ethnic, and religious minorities. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3020. Criminal Justice Research (3)

Basic social science research methods applied to gathering data in criminal justice and criminological research. The focus will be on the special problems encountered in research settings and groups where information about crime is to be gathered and analyzed. Includes review of research in this area. Prerequisite: SOCL 2030.

SOCL 3030. Research Techniques & Analytic Procedures (4)

Social measurement, data analysis and interpretation, formulation of research designs, and application of research techniques. Includes understanding and performing basic research. Prerequisite: SOCL 2030.

SOCL 3150. The Family (3)

Social structure and changing functions of the modern family. Relationship of family to other social institutions. Family roles and interaction. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3160. Sociology of Youth (3)

Sociological analysis of the development of self and the socialization of the child and youth in sex and age roles. Prerequisite: SOCL 1010.

SOCL 3200. Social Change (3)

Sociology and social change, types and problems of change, factors in rate and direction of change, classic and modern theoretical analysis of social change. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3250. Criminal Justice I (3)

A survey of basic institutions and processes of criminal justice in the United States. Prerequisite: Junior standing.
SOCL 3310. Social Stratification (3)

Origins, characteristics, and functions of social castes and classes; emphasis on recent research and theoretical developments. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3410. Modern Sociological Theory I (3)

Major contributions to systematic sociological theory: Critical analysis of selected works from Comte, Pareto, Weber, Durkheim, Mannheim, and other classical sociologists. Prerequisite: SOCL 3000 or consent of instructor.

SOCL 3430. Population, Resources, and the American Future (3)

Is population a problem in contemporary America? An examination of the effects of rapid population growth and its relationship to the rapid depletion of renewable and non-renewable resources both now and in the future. (Formerly 3420) Prerequisites: SOCL 1010, 2030, or consent of instructor.

SOCL 3610. Small Groups Seminar (3)

Structure and processes of small human groups, theory, research methods, and empirical findings. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3720. Social Welfare Services (4)

Historical development of welfare services; analysis of the structure, policies, and issues of public and private welfare services. Prerequisite: SOCL 1010.

SOCL 4000. Sociology of Education (3)

The changing character of education in complex societies, its effect on individual and community behavior and development. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4030. Seminar in Research Design (4)

Theory construction and research application, development of research designs and application in the operating context of research projects. Prerequisite: SOCL 3030 or equivalent.

SOCL 4120. Sociology of Crime and Delinquency (3)

Theories of crime and delinquency; acquisition of criminal behavior patterns by individuals; distribution of crime among societal groups; description of crime patterns cross culturally. Prerequisite: SOCL 1010 or consent of instructor.
SOCL 4130. Sociology of Correction (4)

Theories of punishment and treatment of criminals and juvenile delinquents. Effects of probation, parole, and prison behavior modification programs. Study of social systems within correctional facilities. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4140. Sociology of Law (3)

Sociological analysis of legal principles and rules, law and culture, social organization, social change, administration of justice. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4150. Sociology of Probation and Parole (3)

The uses of probation, parole, and other non-institutional programs in correctional systems. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4240. Social Deviance (3)

Theories of deviant behavior and relevant research. Study of the processes by which deviance occurs and the reactions of society. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4250. Criminal Justice II (3)

Analysis of public policy issues in administration of criminal justice; ideology of crime control and criminal justice reform. Prerequisite: SOCL 3250.

SOCL 4320. Sociology of Religion (3)

Sociological analysis of religious belief, behavior, and organization; classical and current theory and research. Prerequisite: Consent of instructor.

SOCL 4400. Political Sociology (3)

Sociological bases of political attitudes and behavior. Theory and research dealing with political socialization, voting behavior, legitimacy, and authority. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4410. Modern Sociological Theory II (3)

Major contributions to systematic sociological theory. Critical analysis of selected works from contemporary sociologists. Prerequisite: SOCL 3410.
Sociology

SOCL 4520. Personality and Society (3)
Relations between personality, social structure, and culture. Primary emphasis on rules, socialization, aggression, affiliation, leadership, and norms. (Formerly 4510) Prerequisites: SOCL 1010 or consent of instructor.

SOCL 4600. Industrial Sociology (3)
Sociological analysis of industrial and other institutions of employment and work; work relations, labor unions, management policies, and industrialization as a world-wide phenomena. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4620. The American Consumer (3)
Overview of the social ramification of American consuming habits. Includes a brief historical sketch of consumerism. Primary concentration is on modern consumer practices and the phenomenon of consumerism. Course will include examination of local area merchandising, advertising, etc. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4700. Medical Sociology (3)
The social causes and consequences of illness in contemporary American society will be explored along with traditional and unique approaches to treating the sick. In addition, factors that prohibit equal access to medical care facilities will be examined. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4710. Sociology of Aging (3)
Examination of the dynamics and processes of aging; social and psychological aspects of aging, including attitudes toward the aged. Sociological, social-psychological, and biological theories of the aging process will be explored; social programs for the elderly will be examined. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4720. Sociology of Death (3)
Social and institutional factors involved in death, death-related behaviors, attitudes toward death and institutional influences on the death process. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4730. Alcohol & Alcoholism (3)
An overview of alcoholism and alcohol abuse as a social, economic, and individual problem. Review of exploratory models, symptomatic behavioral indicators, and methods of intervention. Prerequisite: SOCL 1010 or consent of instructor.
SOCL 4800. Formal Organizations (3)

Analysis of modern bureaucratic organizations like hospitals, prisons, welfare, schools, etc. Examination of organizational effects on members, clients, and other organizations will be stressed. Prerequisite: Consent of instructor.

SOCL 4810. Urban Sociology (3)

The urban concept; origin and development of urban areas; effects of urbanization, social institutions, and social relations; research methods applied to urban life and form. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4850. The Community (3)

A sociological exploration of past and present theories surrounding the emergency and development of the community. Emphasis will be placed on the complexities of population, organization, technology, and environmental factors and their impact on individual and institutional adaptive mechanisms and approaches. (Formerly 4840) Prerequisite: SOCL 1010, 2030, or consent of instructor.

SOCL 4900. Seminar in the Sociology of Sociology (3)

Sociological analysis of sociology, its relationships to other behavioral and social sciences; consideration of problems and techniques of teaching sociology. Recommended for future graduate students or teachers. Prerequisites: Senior standing and consent of instructor.

SOCL 4940. Field Experience--Immersion Semester (3-6)

Supervised experience relevant to specific aspects of sociology. Intensive field placement in an appropriate agency or organization. Individual meetings and written reports. Each student will be placed in an agency for 10 hours (3 units) to 20 hours (6 units) per week. Prerequisite: Consent of instructor.

SOCL 4950. Selected Topics in Sociology (Topics to be specified in Class Schedule) (1-5)

Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

SOCL 4960. Senior Seminar (3)

Review and discussion of the contemporary issues facing sociology. Each student prepares an individual report. Prerequisite: Consent of instructor.
Sociology

SOCL 4970. Selected Topics offered during Winter Term (4)

SOCL 4980. Individual Study (1-4)

For students capable of independent work at an advanced level. May be repeated up to 6 units. Prerequisite: Consent of instructor.

SOCL 5000. Seminar in Criminology (3)

Advanced study of crime causation and criminal classification; specialized group and individual treatment approaches. Prerequisite: Graduate standing.
Technology and Change

A DEGREE MINOR

John P. Rasmussen, Ph.D., Director

Technology and Change is a multidisciplinary degree minor especially designed for the non-science student. The program is concerned with the social impact of science and technology on the world today and the world of the future. This minor will be useful to the student planning a career in education or administration as well as to all those seeking a broad understanding of the implications of technological and social change.

DEGREE MINOR IN TECHNOLOGY AND CHANGE

Eighteen units, of which at least 10 must be upper division.

Required courses:

MDIS 3506. The Technological Society, 3 units
MDIS 4960. Seminar in Technology and Society, 3 units

Elective courses:

In consultation with and upon approval of the minor adviser, the student is to select at least 12 units of supporting courses which contribute to his or her ability to understand the cultural implications of science and technology. At least 2 of these courses are to be selected from the Natural Sciences.

Courses useful in fulfilling elective requirements include, but are not limited to, the following:

ASTR 2100. Descriptive Astronomy, 3 units
BIOL 2650. Environmental Biology, 2 units
MATH 1200. Computers and Society, 3 units
ANTH 4200. Applied Anthropology and Social Change, 4 units
GEOG 3020. Human Ecology, 3 units
HIST 3640. Contemporary America, 3 units
SOCL 3200. Social Change, 3 units

Up to 6 units of the required 12 units of supporting course work in the minor may be taken by means of courses numbered 4980, Individual Study. Such course work must clearly focus on the topic of technology and change and must be approved by the minor adviser. Where appropriate, Winter Term courses are also applicable.
COURSE DESCRIPTIONS

MDIS 3500. The Technological Society (3)

An interdisciplinary analysis of the social and ecological crises caused by the exponential growth of science and technology. The issues--population, energy, alienation, pollution, etc.--are examined on the global, national, and local levels.

MDIS 4960. Seminar in Technology and Society (3)

Reading, papers, and discussion on the societal, ecological, and philosophical issues raised by contemporary science and technology. Prerequisite: MDIS 3500 or consent of instructor.
Urban and Community Studies
A Concentration Within the Social Sciences Major
Melvin H. Aamodt, Ph.D., Director

The interdisciplinary Urban and Community Studies Concentration is designed as an undergraduate course of study for students who wish to investigate the major problems which result from the growing complexity of our urban environment. Environmental, behavioral, and administrative aspects of urban areas are considered as well as techniques useful in studying urban problems.

Students who pursue this program obtain background leading towards positions in a variety of governmental or voluntary agencies as well as preparation for possible graduate training in such professional programs as public administration, urban or regional planning, social welfare, etc.

Internships in Governmental Agencies. There is an Intern Program in the Department of Political Science. Students in the Urban and Community Studies concentration who wish to be considered for participation in that program should contact the director in the Political Science Department concerning requirements for admission.

REQUIREMENTS FOR BACHELOR OF ARTS, SOCIAL SCIENCE, WITH A CONCENTRATION IN URBAN AND COMMUNITY STUDIES

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major, as listed below.
3. Complete the major of not less than 34 upper division units as outlined below and approved by the adviser. No more than 8 units of Winter Term CR graded course work may apply toward the degree.

Completion of a minor is not required.

Prerequisites:
1. SOCL 1010. Introduction to Sociology, 3 units
2. PSCI 1201. American Government, 3 units
3. ECON 2500. Principles of Economics I, 4 units
4. Complete one of the following research methods courses:
   MATH 2000. FORTRAN Programming, 3 units
   SOCL 2030. Research Methods, 4 units
   PSCI 3100. Scope & Methods of Political Science, 4 units

Recommended courses:
MATH 1600. Statistics, 4 units
SOCL 3030. Research Techniques & Analytic Procedures, 4 units
GEOG 3700. Cartographic Presentation, 3 units
Urban and Community Studies

COURSES IN THE MAJOR

1. URBAN ENVIRONMENT

Three courses dealing with the cultural, economic, spatial, and physical aspects of the urban environment:

ECON 4600. Urban Economics, 3 units
GEOG 4350. Urban Geography, 3 units
HIST 3640. Contemporary America, 3 units

2. URBAN BEHAVIOR

Two courses concerned with urban behavior:

SOCL 4810. Urban Sociology, 3 units
SOCL 4850. The Community, 3 units

3. URBAN ADMINISTRATION AND POLITICS

Two courses in the areas of urban administration and politics:

PSCI 3300. Introduction to Public Administration, 3 units
PSCI 4330. Urban Politics, 4 units

4. INTERDISCIPLINARY SEMINAR

As arranged in consultation with an adviser, complete 3 units of:

SSCI 4960. Social Sciences Interdisciplinary Seminar, 3 units

5. SSCI 3000. Library Resources for the Social Sciences, 2 units

6. Completion of the remainder of the required 34 units from the list below. Additional work beyond the minimum requirements for the concentration is highly recommended.

ANTH 4140. Urban Anthropology, 3 units
ECON 4540. Public Finance & Fiscal Policy, 3 units
ECON 4550. Taxation & the American Economy, 3 units
GEOG 3510. Geography of North America, 4 units
GEOG 3700. Cartographic Presentation, 3 units
GEOG 4300. Geography of Resource Planning, 3 units
HIST 4680. American Intellectual & Social History, 3 units
PSCI 3230. Political Parties and Interest Groups, 4 units
PSCI 3260. Urban Justice, 3 units
PSCI 3330. California Politics, 3 units
PSCI 4300. Organization Theory, 4 units
PSCI 4320. Minority Politics, 3 units
*PSCI 4940. Public Administration Internship, 3 units
SOCL 3030. Research Techniques & Analytic Procedures, 4 units
SOCL 3150. The Family, 3 units
SOCL 3200. Social Change, 3 units
SOCL 3310. Social Stratification, 3 units
SOCL 3430. Population, Resources, and the American Future, 3 units
SOCL 3720. Social Welfare Services, 3 units

Appropriate Winter Term or other courses dealing with urbanism may be substituted upon prior approval by adviser.

TEACHING CREDENTIALS

Students pursuing an Urban & Community Studies Concentration who are interested in a single subject credential waiver are referred to a description of the waiver program in the Social Sciences section of this catalog. Please refer to the Education section of the catalog for a description of other requirements to be completed to obtain a single subject credential.

*This course is available only to students who have been admitted to the Internship Program of the Political Science Department.
VOCATIONAL PROGRAM:

1. Major in Vocational Education (a) . . . 24
2. Designated Subjects Credential (b) . . 9-15 33-39

(a) The degree program requires a minimum of 24 upper division units in the major. All or a major portion of this credit will be awarded for work experience by the Board of Examiners for Vocational Teachers upon application by the student to the Bureau of Industrial Education, California State Department of Education ("Swan Act" evaluation). If the student fails to obtain 24 units of credit through the "Swan" evaluation, the remaining units in the Vocational Education major are to be taken in regular Cal State Stanislaus upper division courses or appropriate extension courses, related to the student's specific interests, selected with the approval of the vocational education adviser.

(b) A student must have obtained the clear Designated Subjects Credential or a California Community College teaching credential in a subject area before enrolling in the BVE degree program. The vocational teacher training completed by the applicant may be used toward electives.
<table>
<thead>
<tr>
<th></th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. General Education (c)</td>
<td>40</td>
</tr>
<tr>
<td>4. Degree Minor (d)</td>
<td>18-25</td>
</tr>
<tr>
<td>5. Electives (e)</td>
<td>20-33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>

When an applicant applies to Cal State Stanislaus, the following data should be included, if available:

1. Verification of "Swan Act" units, including date of evaluation
2. Verification of clear or life Designated Subjects credential (b)
3. Degree minor desired.

(c) This portion of the program may be completed through an appropriate selection of courses at CSCS or a community college.

(d) Degree Minor: Students must select a minor from those listed in the CSCS catalog. Courses to meet the requirements for a minor must be arranged with a minor adviser (usually the department chair) in the department offering the minor. Vocational education students may be interested in the minor entitled "Technology and Change," a multidisciplinary program concerned with the social impact of science and technology on the world today and the world of the future.

(e) Included as electives are courses transferred from another college which are not used elsewhere in the degree program. Additional courses required to meet the minimum requirement for graduation (124 units) must be chosen in consultation with the vocational education adviser from among courses and programs throughout the College.
Women's Studies
A DEGREE MINOR

Sally J. Gorelnik, Ph.D., Coordinator

Women's Studies is an interdisciplinary degree minor that addresses itself to the scientific analysis of various aspects of women's roles in modern societies. In particular, this program is concerned with changing sex role stereotypes, attitudes, and behavior as they pertain to women in a variety of environmental settings. The Women's Studies minor should be valuable, therefore, to any student who will eventually work with women--either in our own society or in another cultural context.

DEGREE MINOR IN WOMEN'S STUDIES

Seventeen units as specified below.

Required courses:

MDIS 3100. Women in America, 3 units
MDIS 4000. Women's Studies Colloquium, 2 units

Elective courses:

At least four courses from the following:

ANTH 3900. A Cross-Cultural View, 3 units
HIST 3680. Women in American History, 3 units
PHED 3750. Women in Sport, 3 units
PSYC 3660. Psychology of Women, 3 units
PSYC 4850. Psychology of Sex Differences, 3 units
SOCL 3170. Women in the Labor Force, 3 units
SPAN 3701. Women in Hispanic Literature, 3 units

COURSE DESCRIPTIONS

MDIS 3100. Women in America (3)

An overview of the role of women in contemporary American society. An interdisciplinary approach to the study of women is stressed. Topics to be examined include perspectives and images of women in society, the role of women in society and the issue of sex role innovation. No prerequisites.

MDIS 4000. Women's Studies Colloquium (2).

This course covers a range of areas and issues concerning women in contemporary American society. Selected topics are presented by guest speakers who are experts in various areas of women's studies. Class discussion follows presentations by guest speakers. Prerequisite: Junior or senior standing.

*This program is pending approval.
The General Faculty

OLSON, Walter, 1975
President; Professor of Geography
B.A. 1947, University of Washington; M.A. 1949, University of Puget Sound; Ph.D. 1956, Syracuse University

AAMODT, Melvin H., 1970
Professor of Anthropology and Geography
B.A. 1958, Brigham Young University; M.A. 1960, University of Wisconsin; Ph.D. 1968, Indiana University

AHANOTU, Austin Metumara, 1970
Associate Professor of History
B.A. 1967, Berea College; M.A. 1968, Ph.D., 1971, University of California, Los Angeles

ALMY, John, 1971
Associate Professor of Chemistry
B.A. 1964, Johns Hopkins University; Ph.D. 1969, University of California, Los Angeles

*ANDERSON, Robert K., 1971
Associate Professor of Spanish
B.A. 1966, Brigham Young University; Ph.D. 1973, Saint Louis University

ARMSTRONG, Corinne P., 1972
Visiting Lecturer in Anthropology
B.A. 1964, M.A., 1965, University of California, Los Angeles

AUBERT, Edward J., 1961
Director of Admissions and Articulation
B.S. 1956, University of San Francisco; M.B.A. 1961, University of California, Berkeley

BAKAS, John S., 1977
Director of Community and School Relations
B.A. 1969, M.A. 1974, University of New Mexico, Albuquerque

BARRETT, Thomas P., 1961
Professor of Business Administration
B.A. 1954, Northeastern University; M.A. 1958, Michigan State University

*Sabbatical Leave, Spring 1979

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Faculty

BARTLEY, Dale R., 1977
Visiting Lecturer in Political Science
B.S. 1966, M.A. 1969, University of Wisconsin, Madison

BEAMISH, Jerome J., 1964
Director of Testing, Tutorial Services, Disabled Students
B.A. 1957, Sir George Williams University; M.A. 1958, Ph.D. 1962, Columbia University

BENNEDT, Agnes L., 1961
Head Catalog Librarian
A.B. 1951, Luther College; A.M.L.S. 1952, University of Michigan

BERKOBEN, Lawrence D., 1965
Professor of English
B.A. 1957, Pennsylvania State University; M.A. 1958, Ohio University; Ph.D. 1963, University of Washington

BIANCANI, Albert W., 1976
Coach, Academic Year
B.A. 1967, M.A. 1968, California State University, Sacramento; Ed.D. 1972, Utah State University

BOFFMAN, June L., 1977
Assistant Professor of Nursing
B.S. 1969, M.S. 1970, University of California, San Francisco

BOWEN, James C., 1970
Associate Professor of Physical Education
B.A. 1965, University of Northern Iowa; M.A. 1969, Ph.D. 1973, University of Iowa

BOWERS, Donald W., 1971
Associate Professor of Sociology

BOWERS, Ida I., 1972
Associate Professor of Geography
B.S. 1961, Central Michigan University; M.A. 1965, Ph.D. 1973, University of Hawaii

BREWER, Joseph E., 1967
Professor of English
B.A. 1947, University of Akron; M.A. 1948, University of Cincinnati; Ph.D. 1954, Case Western Reserve University

BROWN, Judith A., 1969
Associate Professor of Biological Sciences
B.A. 1966, Whittier College; M.S. 1969, Ph.D. 1973, Northwestern University
Faculty

BRUGGMAN, Joseph E., 1960
Professor of Music
B.A. 1941, San Jose State University; M.A. 1947,
Ed.D. 1949, Columbia University

BYRD, James E., 1974
Associate Professor of Chemistry
B.S. 1966, Roosevelt University, Chicago;
Ph.D. 1971, University of Chicago

CAMARATA, Martin L., 1964
Professor of Art
B.S. 1956, State University of New York at Buffalo;
M.A. 1957, New York University

CANBY, Joel, 1970
Professor of Anthropology
B.A. 1941, Colorado College; A.M. 1948,
Ph.D. 1950, Harvard University

CARLSON, Daryl E., 1977
Associate Professor of Business Administration
B.S. 1968, University of California, Davis;
Ph.D. 1972, University of California, Berkeley

*CARROLL, John E., 1971
Associate Professor of English
B.A. 1965, M.A. 1967, Ph.D. 1970, University of New Mexico

CARSON, Carol P., 1972
Assistant Professor of Anthropology
B.A. 1966, University of California, Davis;
M.A. 1969, Ph.D. 1977, University of California, Berkeley

CASWELL, John E., 1960
Professor of History
B.A. 1934, M.A. 1937, University of Oregon;
Ph.D. 1952, Stanford University

CHANG, Shang-Wang, 1969
Associate Professor of Mathematics
B.E. (Engineering) 1947, Tohuku University, Japan;
M.S. 1961, Kansas State Teachers College;
Ph.D. 1969, Iowa State University

CHAPIN, Wayne R., 1970
Professor of Business Administration
B.B.A. 1958, M.B.A. 1959, University of Texas at Austin;
D.B.A. 1965, University of Southern California;
C.P.A. 1958, State of Texas

*Sabbatical Leave, Fall 1978
Faculty

CHERUKURI, U. Rao, 1970
Professor of Business Administration
B. Com. 1954, M. Com. 1956, M. Com. (Hons.) 1958, Andhra University; M.B.A. 1966, Atlanta University; Ph.D. 1972, University of North Carolina

CHOW, Tai-Low, 1969
Professor of Physics
B.S. 1958, National Taiwan University; M.S. 1963, Case Western Reserve University; Ph.D. 1970, University of Rochester

CHRISTOFFERSON, Jay P., 1970
Associate Professor of Biological Sciences
B.S. 1961, University of Utah; M.S. 1965, Ph.D. 1970, University of Hawaii

COLE, James C., 1964
Professor of Education
A.B. 1947, M.A. 1948, Stanford University; Ed.D. 1956, Teachers College, Columbia University

COLLINS, Jean Dee, 1976
Visiting Lecturer in Education
B.S. 1962, University of Madrid, Spain; B.S. 1965, Georgetown University; M.S. Ed. 1966, Indiana University, Bloomington

CONANT, Richard D., 1969
Professor of Physical Education
A.B. 1955, Occidental College; M.S. 1956, University of California, Los Angeles; Ph.D. 1969, University of Oregon

CORBIN, Joseph W., 1968
Professor of Education
B.S. 1960, Geneva College; M.Ed. 1961, University of Pittsburgh, Ed.D. 1967, University of the Pacific

COULTER, R. Scott, Jr., 1970
Associate Professor of Music
B.M. 1949, M.M. 1952, University of the Pacific; Ph.D. 1975, Claremont Graduate School

CRAWFORD, Paula J., 1973
Reference Librarian
B.A. 1972, University of the Pacific; M.S.L.S. 1973, University of Southern California

CREDELL, Edward R., 1967
Professor of Education
A.B. 1949, California State University, Fresno; M.S. 1956, M.Ed. 1960, University of Southern California; Ph.D. 1967, Northwestern University

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CRIST, William D., 1969
Professor of Economics
B.S. 1960, M.A. 1962, Ph.D. 1972, University of Nebraska

CROWLEY, Gerard J., 1960
Executive Dean
Professor of Management
A.B. 1942, Loyola College; Ed.M. 1951, Boston University

DAVIDSON, John R., 1977
Visiting Lecturer in Political Science
B.A. 1966, University of Illinois, Urbana; M.A. 1968, Ph.D. 1975, University of Wisconsin, Madison

DEAN, Britten, 1967
Professor of History

DINSE, Noble T., 1970
Associate Professor of Drama

DONINI, Antonio O., 1966
Professor of Sociology
A.B. 1941, Institute of Classical Literature and Humanities; M.A. 1945, Saint Michael College, Buenos Aires, Argentina; M.S.Sc. 1957, Ph.D. 1960, Institute of Social Sciences, Gregorian University, Rome, Italy

DORAZ, Walter E., 1975
Assistant Professor of Sociology
B.A. 1970, Southeastern Massachusetts University; M.A. 1972, Ph.D. 1975, Washington State University

DURBIN, Thomas E., 1970
Professor of Anthropology
B.A. 1964, University of California, Berkeley; M.A. 1966, Ph.D. 1970, University of California, Los Angeles

DYCHE, Chester M., 1970
Professor of Mathematics
B.A. 1952, Linfield College; M.A. 1956, Oregon State University

ELLIOTT, Lee A., 1972
Associate Professor of Psychology
B.A. 1959, Quincy College; M.Ed. 1967, Xavier University; Ph.D. 1970, University of Cincinnati

ENTIN, Kenneth, 1971
Associate Professor of Political Science
ERICKSON, Edward C., 1970
Assistant Professor of Economics
B.A. 1965, M.A. 1966, University of California, Riverside;
Ph.D. 1970, University of Southern California

FARRAR, Charles R., 1960
Professor of Education; Credentials Coordinator
B.A. 1949, M.A. 1950, Humboldt State University;
Ed.D. 1963, Stanford University

FAZAL, Sadrudin S., 1976
Assistant Professor of Mathematics
B.S. 1968, University of East Africa, Nairobi, Kenya;
M.A. 1970, Ph.D. 1974, University of California, Berkeley

*FELDMAN, Louis A., 1968
Professor of Mathematics
B.S. 1963, University of Michigan; M.A. 1965,
Ph.D. 1969, University of California, Berkeley

FOX, Phillis T., 1974
Assistant Professor of Sociology
B.A. 1966, University of Chicago;
M.A. 1969, Ph.D. 1974, Northwestern University

FULLER, Michael C., 1971
Associate Professor of French
University of Washington

GALLEGOS, Consuelo L., 1975
Instructor in Education
B.A. 1973, California State College, Stanislaus

GALLOWAY, R. Dean, 1960
Director of the Library
A.B. 1947, Humboldt State University;
M.S. 1950, University of Southern California

GENTRY, Thomas A., 1973
Associate Professor of Psychology
B.A. 1957, M.A. 1958, Colorado College;
Ph.D. 1973, Brandeis University

GHIGLIieri, Sylvia M., 1961
Professor of Music
B.M. 1954, Dominican College; Diploma 1954, Music Academy of the West at Santa Barbara; Diploma 1955, Conservatoire de la Musique at Fontainebleau, France; M.M. 1960,
University of the Pacific

*Sabbatical Leave, Fall 1978
Faculty

GIVENTER, Lawrence L., 1975
Assistant Professor of Political Science
B.S.M.E. 1967, New Jersey Institute of Technology;
M.S. 1968, Massachusetts Institute of Technology;
Ph.D. 1976, University of Pittsburgh

GOLDSMITH, W. Mack, 1966
Professor of Psychology
A.B. 1957, Ripon College; Ph.D. 1966, Cornell University

GOODWIN, James M., 1968
Professor of Physics
B.S. 1958, Pennsylvania State University;
M.S. 1964, Ph.D. 1968, University of Washington

GORELNIK, Sally J., 1975
Assistant Professor of Sociology
B.A. 1968, California State University, Los Angeles;
M.A. 1971, Ph.D. 1974, University of Minnesota

GOTELLI, David M., 1970
Assistant Professor of Biological Sciences
B.A. 1964, University of California, Berkeley;
Ph.D. 1969, University of Washington

GRANT, Curtis R., 1966
Vice President for Academic Affairs
Professor of History
A.B. 1960, Stanford University; M.A. 1961, University of California, Berkeley; Ph.D. 1968, Stanford University

GRAVES, Jack A., 1969
Professor of Education

GRILLOS, Steve J., 1965
Professor of Botany
B.S. 1951, University of Denver; M.S. 1952, University of Wyoming; Ph.D. 1956, Oregon State University

HABASHI, Zaki I., 1965
Professor of Physical Education

HACKWELL, Glenn A., 1961
Professor of Biological Sciences
B.S. 1957, M.S. 1958, Brigham Young University; Ph.D. 1967, Oregon State University; Registered Professional Entomologist, 1972, Entomological Society of America
HAMILTON, Hobart G., Jr., 1968
Associate Vice President for Academic Affairs
Professor of Chemistry
B.S. 1961, University of Texas, El Paso;
M.S. 1963, Ph.D. 1967, New Mexico State University

HANNA, Charles C., 1977
Dean for Credentials and Graduate Programs
Professor of Education
B.A. 1955, Gustavus Adolphus College; M.S. 1960, Mankato
State College; Ed.D. 1969, Montana State University

HANNY, James K., 1966
Professor of Physical Education
B.A. 1949, M.A. 1957, University of the Pacific;
Ed.D. 1972, Laurence University

HANSON, James C., 1960
Professor of Biological Sciences
B.A. 1955, M.A. 1957, University of the Pacific;
Ph.D. 1967, Oregon State University

HARDER, Paul O., 1973
Dean for Academic Resources
Professor of Music
B.M. 1944, Butler University; M.M. 1945, Eastman School of Music; Ph.D. 1959, University of Iowa

*HAYES, William H., 1971
Professor of Philosophy
B.A. 1947, Columbia College, Columbia University;
M.A. 1952, Ph.D. 1967, University of California Berkeley

HILPERT, Fred P., Jr., 1977
Assistant Professor of Speech
B.A. 1962, University of Washington; M.A. 1969, California State University, Chico; Ph.D. 1972, University of Oregon

HINKSON, Jimmy W., 1970
Professor of Chemistry
B.S. 1956, M.S. 1958, Brigham Young University;
Ph.D. 1962, Indiana University

**HOLDER, Franklin B., 1965
Professor of History
B.A. 1949, M.A. 1951, Ph.D. 1962, University of California, Berkeley

*Sabbatical Leave, Fall 1978
**Sabbatical Leave, Spring 1979
HOLT, Lewis E., 1971
Professor of Psychology
B.A. 1960, M.A. 1967, Ph.D. 1969, University of California, Berkeley

HUGHES, Steven W., 1971
Associate Professor of Political Science
B.A. 1966, Whittier College; Ph.D., 1971, University of North Carolina

JAMES, Ralph L., 1970
Associate Professor of Mathematics
B.S. 1963, University of Washington;
M.S. 1965, Ph.D. 1970, Oregon State University

JAVAHER, James N., 1961
Professor of Mathematics
L.L.B. 1946, University of Tehran; A.B. 1950, San Jose State University; M.A. 1952, University of California, Berkeley; B.S. 1954, Stanford University; Doctorat d'Universite, Faculte des Sciences, 1960, University of Paris, Sorbonne

JENKINS, David O., 1970
Professor of Business Administration
B.B.A. 1952, Loyola University of Los Angeles; M.A. 1955, The Catholic University of America; C.P.A. 1958, State of California; D.B.A. 1963, University of Southern California

*JENSEN, James P., 1961
Professor of English
B.A. 1953, M.A. 1957, Ph.D. 1964, University of Washington

JOHNSON, Lola V., 1960
Professor of English
B.A. 1956, M.A. 1959, University of the Pacific

JOHNSON, Jacqueline B., 1976
Professor of Nursing
B.S. 1949, Adelphi University; M.S. 1962, St. John's University, Jamaica, N.Y.

KELLOGG, Susan E., 1969
Associate Professor of Speech Pathology and Audiology
B.S. 1964, Syracuse University; M.S. 1965, University of Wisconsin, Madison

KOTTKEN, Frederick E., 1963
Professor of Economics
B.S. 1952, Pepperdine College; M.A. 1957, Ph.D. 1960, University of Southern California

*Sabbatical Leave, Academic Year 1978-79
Faculty

LAMBRIGHT, Robert W., 1968
Professor of Marketing
University of Washington at Seattle

LEE, Albert Yin-Po, 1970
Associate Professor of Economics
B.A. 1955, National Taiwan University;
Ph.D. 1970, Southern Illinois University

LEVERING, Richard A., 1973
Associate Professor of Drama
A.B. 1961, M.A. 1968, California State University, Long Beach

LEWIN, Lewis M., 1976
Assistant Professor of Psychology
B.A. 1968, Allegheny College;
M.S. 1972, Ph.D. 1975, Ohio University, Athens

LODEWYCK, Ronald W., 1973
Associate Professor of Business Administration
B.S. 1965, Illinois Institute of Technology;
M.S. 1966, Ph.D. 1973, Northwestern University

LUEVANO, Richard L., 1972
Assistant Professor of Ethnic Studies
B.A. 1970, California State College, Stanislaus;
M.A. 1971, San Jose State University

MACK, Gerhard G., 1970
Associate Professor of German
A.B. 1965, California State University, Los Angeles;
M.A. 1967, Ph.D. 1971, University of Southern California

MAGNELIA, Paul F., 1966
Professor of Political Science
B.A. 1955, Washington University; M.A. 1960, University of The Americas; Ph.D. 1967, University of Geneva

MARIA, Narendra L., 1968
Professor of Mathematics
B.A. 1948, M.A. 1949, Punjab University, India;
Ph.D. 1968, University of California, Berkeley

MAYOL, Perpetuo S., 1968
Associate Professor of Biological Sciences
B.S.A. 1957, University of the Philippines; M.S. 1965, Oklahoma State University; Ph.D. 1968, Purdue University

McDEARMON, James R., 1970
Professor of Speech Pathology
B.A. 1940, University of California, Berkeley; M.A. 1950, University of the Pacific; Ph.D. 1960, University of Denver
Faculty

McDERMOTT, Douglas W., 1970
Professor of Drama
A.B. 1958, Pomona College; M.A. 1960, University of North Carolina; Ph.D. 1963, University of Iowa

McGEE, Winston E., 1976
Professor of Art
B.J. 1948, A.M. 1949, University of Missouri

McGREGOR, James D., 1976
Counselor and Career Planning
B.A. 1966, California State University, Los Angeles; M.S. 1975, California State University, Hayward

MENDES, Richard G., 1970
Associate Professor of Political Science
B.A. 1966, Wabash College; M.A. 1967, Ph.D. 1971, University of Wisconsin

MOLLEMA, Peter C., Jr., 1975
Head of Technical Services
B.A. 1959, Carleton College; M.A. 1965, University of New Hampshire; M.A.L.S. 1965, University of Wisconsin, Madison

MORGAN, Cynthia L., 1974
Assistant Professor of Psychology
A.B. 1968, Temple University; M.A. 1971, Ph.D. 1974, University of Wisconsin, Madison

MORICONI, R. J., 1968
Professor of Education
A.B. 1955, M.A. 1957, Stanford University; Ed.D. 1967, University of Florida

MORRIS, Joan R., 1977
Director of Financial Aids

MORRIS, William M., 1971
Associate Professor of Physical Education
A.B. 1962, M.A. 1964, California State University, Chico; Ed.D. 1969, University of Utah

MOYNIHAN, Michael H., 1974
Assistant Professor of Sociology
B.A. 1966, M.A. 1969, Ph.D. 1976, University of Colorado at Boulder

MUEDEKING, George D., 1972
Associate Professor of Sociology
B.A. 1965, Pacific Lutheran University; M.A. 1968, Ph.D. 1972, Washington State University
MUEGEL, Glenn A., 1977
Visiting Lecturer in Music
B.S. 1956, University of Cincinnati; M.M. 1962, College Conservatory of Music; D.M.A. 1970, University of Southern California

NAPTON, Lewis K., 1971
Professor of Anthropology
B.S. 1959, Montana State University; M.A. 1965, University of Montana; Ph.D. 1970, University of California, Berkeley

NEELEY, William E., 1976
Visiting Lecturer in Political Science
B.A. 1966, University of Washington

NELSON, Wayne E., 1970
Associate Professor of Physical Education
B.S. 1951, M.S. 1957, University of Wisconsin; Ed.D. 1970, University of New Mexico

NICKERSON, Melvin R., 1966
Coordinator of Audio Visual Services
A.B. 1956, A.M. 1960, University of the Pacific; Ph.D. 1966, University of Michigan

NORTON, Max C., 1961
Professor of Speech
B.A. 1951, M.A. 1955, University of the Pacific; Ph.D. 1962, University of Denver

NOVACK, Joseph A., 1971
Associate Professor of Sociology
B.S. 1964, Wisconsin State University; M.A. 1969, Ph.D. 1971, Louisiana State University

NOVAK, Gary D., 1973
Associate Professor of Psychology
A.B. 1968, Rutgers University; M.A. 1970, Temple University; Ph.D. 1974, State University of New York at Stony Brook

OPPENHEIM, Samuel A., 1971
Associate Professor of History
B.A. 1962, University of Arizona; A.M. 1964, Harvard University; Ph.D. 1972, Indiana University

OZUNA, William, 1973
Assistant Director of Educational Opportunity Program
B.A. 1970, California State College, Stanislaus
Faculty

*PANDELL, Alexander J., 1970
  Professor of Chemistry
  B.S. 1964, San Francisco State University;
  Ph.D. 1968, Stanford University

PARISIAN, Ellen K., 1976
  Visiting Lecturer in Business Administration
  A.B. 1970, University of Michigan, Ann Arbor;
  J.D. 1973, Wayne State University

PARKER, J. Carlyle, 1963
  Assistant Director of the Library
  Head of Public Services
  A.B. 1957, Brigham Young University; M.L.S. 1958,
  University of California, Berkeley

PARTON, Ralf, 1963
  Professor of Art
  Diploma 1953, Albright Art School; B.A. 1954, State University
  of New York at Buffalo; M.A. 1955, Columbia University

PATTERSON, Richard G., 1972
  Director of Educational Opportunity Program
  B.S. 1971, University of Nevada, Reno

PERONA, Michael J., 1973
  Associate Professor of Chemistry
  B.A. 1964, Ph.D. 1968, University of California, Santa Barbara

PETERS, Priscilla S., 1972
  Serials Librarian
  A.B. 1971, Stanford University;
  M.L.S. 1972, University of California, Berkeley

PEYTON, Cary R., 1970
  Associate Dean of Students
  B.S. 1954, U.S. Military Academy, West Point

PHILLIPS, William H., 1974
  Associate Professor of English
  B.A. 1962, Purdue University; M.A. 1966, Rutgers University;
  Ph.D. 1972, Indiana University

**Pierce, Wayne S., 1971
  Associate Professor of Biological Sciences
  A.B. 1964, Humboldt State University;
  M.S. 1967, Ph.D. 1971, Washington State University

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*Sabbatical Leave, Spring 1979
**Sabbatical Leave, Fall 1978

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PISKOTI, James, 1969
Associate Professor of Fine Art
B.S. 1967, University of Michigan; M.F.A. 1969, Yale University

PITMAN, Leon S., 1969
Associate Professor of Geography
B.S. 1965, Brigham Young University; M.A. 1966, University of Oklahoma; Ph.D. 1973, Louisiana State University

PLATT, James H., 1966
Professor of Speech Pathology and Audiology
B.A. 1940, Bowling Green State University; M.A. 1946, State University of Iowa; Ph.D. 1954, University of Denver

PRESCOTT, Richard, 1970
Visiting Lecturer in Education
A.B. 1938, University of Chicago;
M.A. 1958, University of the Pacific

PURNELL, Rosentene B., 1976
Professor of English
B.A. 1954, Tougaloo College; M.A. 1958, Northwestern University; Ph.D. 1967, University of Oklahoma, Norman

QUEVEDO, Barbara Marie, 1977
Assistant Professor of Spanish
B.A. 1967, M.A. 1972, Ph.D. 1977, University of California, Berkeley

QUINLEY, C. W., Jr., 1962
Registrar
A.B. 1950, San Jose State University

RASMUSSEN, John Peter, 1962
Professor of History
B.A. 1955, California State University, Fresno;
M.A. 1959, Ph.D. 1962, Stanford University

REHM, Celeste L., 1977
Visiting Lecturer in Art
B.A. 1971, Monmouth College, West Long Branch, New Jersey;
MFA 1973, Pratt Institute

*RENNING, H. Dieter, 1970
Professor of Economics
Dr. rer. pol. (Doctor of Economics) 1961, University of Freiburg, Germany

*Sabbatical Leave, Winter & Spring 1979

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Faculty

REUBEN, Paul P., 1971  
Associate Professor of English  
B.A. 1961, Patna College, India; M.A. 1963, Patna University, India; Ph.D. 1970, Bowling Green State University

RISTOW, Alan W., 1976  
Assistant Professor of Mathematics  
B.S. 1968, M.S. 1972, Ph.D. 1976, University of Wisconsin, Milwaukee

ROE, Pamela, 1971  
Associate Professor of Biological Sciences  
B.A. 1965, University of Texas; M.S. 1967, Ph.D. 1971, University of Washington

ROSENTHAL, Nina R., 1976  
Assistant Professor of Education  
B.S. 1969, M.S. 1971, Ph.D. 1975, Syracuse University, Syracuse

RUECHELLE, Randall C., 1965  
Professor of Speech  
A.B. 1942, M.A. 1944, University of Chicago; Ph.D. 1953, University of Southern California

RUSHDOONY, Haig A., 1961  
Professor of Education  
A.B. 1949, M.A. 1953, San Francisco State University; Ed.D. 1961, University of California, Berkeley

SANDERSON, Douglas R., 1975  
Athletic Director  
B.A. 1967, University of California, Riverside; M.A. 1969, California State University, Chico

SANTOS, Robert L., 1970  
Bibliographer  
B.S. 1969, California State College, Stanislaus; M.A. 1970, University of Southern California

SCHWARCZ, Ervin H., 1967  
Professor of Physics  
B.S. 1945, Ohio State University; M.S. 1948, Ph.D. 1955, University of Michigan

SEBAN, Martha M., 1971  
Associate Professor of Physical Education  
B.S. 1967, M.S. 1971, California State University, Hayward

SEBOK, Richard F., 1970  
Dean of Students  
B.A. 1960, Millikin University; M.Ed. 1965, University of Illinois; Ed.D. 1974, University of the Pacific
SETTERA, George E., Jr., 1971
Associate Professor of English
B.S. 1964, Portland State University;
Ph.D. 1971, University of Oregon

SHAW, Gary C., 1969
Professor of Political Science
B.A. 1966, Utah State University;
M.A. 1967, Ph.D. 1970, Michigan State University

SHERMAN, Stanley E., 1969
Associate Professor of Psychology
B.A. 1956, University of California, Berkeley; B.D. 1959,
Berkeley Baptist Divinity School; M.A. 1966, San Jose State
University; Ph.D. 1969, University of Washington; Certified
Clinical Psychologist, 1970, State of California

SHRABLE, V. Kenneth, 1970
Dean for Extended Education
Professor of Psychology
B.D. 1957, Fuller Seminary; A.B. 1950, Harding College;
M.A. 1961, Ph.D. 1965, University of California, Berkeley

SIMMONS, Mary Ellen, 1977
Associate Professor of Nursing
B.S.N. 1972, University of Illinois, Chicago;
M.S. 1975, Northern Illinois University, De Kalb

SMITH, Priscilla R., 1968
Professor of Education
A.B. 1941, John R. Stetson University; M.Ed. 1955, National
College of Education; Ed.D. 1963, University of Denver

SMURR, J. W., 1967
Professor of History
B.A. 1950, M.A. 1951, University of Montana;
Ph.D. 1960, Indiana University

STANULIS, Robert G., 1977
Visiting Lecturer in Psychology
B.A. 1971, Oakland University, Rochester, Michigan;
M.A. 1976, Ph.D. 1977, Wayne State University

STEELE, Joan D., 1976
Affirmative Action Officer & Research and Grants Coordinator

STENZEL, David Bentheim, 1961
Professor of History
Diploma 1950, University of Vienna; B.S. 1951, Georgetown
University; M.A. 1954, Ph.D. 1957, University of California, Berkeley
Faculty

STEWART, Albert A., 1977
Visiting Lecturer in Art
B.F.A. 1969, University of Texas, Austin;
M.F.A. 1971, University of Washington, Seattle

SWAIN, Lorna M., 1961
Professor of Education
A.B. 1937, University of California, Berkeley; M.A. 1954,
Humboldt State University; Ed.D. 1960, Stanford University

TADLOCK, Gisela D., 1973
Associate Professor of Spanish
B.A. 1967, San Francisco College for Women;
Ph.D. 1970, University of Arizona

TAYLOR, Douglas H., 1969
Professor of English
B.A. 1960, Whitman College; M.A. 1963, University of
Washington; Ph.D. 1967, University of California, Davis

TAYLOR, Patricia H., 1972
Assistant to the Dean of Students, Director of
Student Activities
B.S. 1968, California State University, Fresno; M.A. 1971,
California Polytechnic State University, San Luis Obispo

THOMPSON, Evan M., 1965
Professor of Chemistry
B.A. 1960, Ph.D. 1964, Brigham Young University

THOMPSON, Judith Ann, 1977
Reference Librarian
B.A. 1972, M.A. 1974, University of California, Davis;
M.L.S. 1976, University of California, Berkeley

THOMPSON, Lloyd R., 1968
Associate Professor of Education
B.S. 1952, University of Minnesota; M.A. 1957, California
State University, Long Beach; M.Ed. 1959, Ed.D. 1966,
University of Southern California

*TORDOFF, Walter, III, 1970
Associate Professor of Biological Sciences
B.A. 1965, University of Massachusetts;
M.S. 1967, Ph.D. 1971, Colorado State University

TRIPPI, Frank J., 1971
Associate Professor of Sociology
B.A. 1961, M.A. 1963, California State University, Los Angeles;
Ph.D. 1971, University of California, Los Angeles

*Sabbatical Leave, Spring 1979

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TSACLE, Alfred G., 1973
Assistant Professor of Business Administration
B.S. 1968, University of San Francisco;
M.A. 1971, University of California, Berkeley

TUMAN, Vladimir S., 1965
Professor of Physics
B.S. 1948, Birmingham University of England; D.I.C. 1949,
Imperial College of London; Ph.D. 1964, Stanford University

UNRUH, Gary L., 1972
Associate Professor of Music
B.A. 1963, M.A. 1965, Occidental College;
D.M.A. 1973, University of Illinois

VANDERMOLEN, Ronald J., 1969
Professor of History
B.A. 1961, Calvin College; M.A. 1962, DePaul University;
Ph.D. 1969, Michigan State University

VERTUNO, Suzanne L., 1977
Visiting Lecturer in Nursing
B.S.N. 1970, Illinois Wesleyan University;
M.S. 1973, University of Arizona

WADE, Jere D., 1969
Associate Professor of Drama
B.A. 1958, M.A. 1966, University of California, Davis;
Ph.D. 1972, University of Oregon

WAKEFIELD, James A., Jr., 1974
Associate Professor of Psychology
B.A. 1970, University of Texas, Austin;
M.A. 1973, Ph.D. 1973, University of Houston

WASHINGTON, Delo E., 1972
Assistant Professor of Ethnic Studies
B.A. 1957, Spelman College; M.S.W. 1959, Atlanta University;
Ph.D. 1977, University of California, Berkeley

WATLING, Thomas C., 1967
Director of Career Planning and Placement
B.A. 1949, M.Ed. 1955, Drury College;
Ph.D. 1967, University of Denver

WEBSTER, William G., 1976
Visiting Lecturer in Education
B.S. 1951, Southern University, Baton Rouge;
M.S. 1967, California State University, Hayward;
Ed.D. 1976, University of the Pacific
Faculty

WEEDON, Jerry L., 1971
Associate Professor of Speech
B.A. 1958, California State University, Long Beach;
M.A. 1963, Ph.D. 1969, University of California, Los Angeles

WERNES, Hope B., 1976
Assistant Professor of Art
B.A. 1965, University of California, Santa Barbara;
M.A. 1968, Tulane University; Ph.D. 1972, University of California, Santa Barbara

WEST, W. Barry, 1977
Assistant Professor of Audiology
A.B. 1963, University of Northern Colorado; M.S. 1966,
Colorado State University; Ph.D. 1971, Stanford University

WILLIAMS, Daniel F., 1971
Associate Professor of Biological Sciences
B.A. 1966, Central Washington State College;
M.S. 1968, Ph.D. 1971, University of New Mexico

WILLIAMS, Donald A., 1977
Assistant Professor of Music
B.S. 1959, Indiana State University; M.M. 1960, Butler University;
D.M.A. 1974, University of Michigan, Ann Arbor

WILLIAMS, Jack W., 1969
Associate Professor of English
B.A. 1962, M.A. 1966, University of Colorado

WISLER, Gene C., 1963
Professor of Music
A.B. 1947, San Jose State University; M.A. 1950, University of Minnesota;
Ed.D. 1956, University of Oregon

WOLD, John T., 1970
Associate Professor of Political Science
B.A. 1965, California Lutheran College;
M.A. 1968, Ph.D. 1972, Johns Hopkins University

WOOLDRIDGE, Kent E., 1974
Assistant Professor of Mathematics
B.S. 1964, University of Chicago;
Ph.D. 1975, University of Illinois, Urbana-Champaign

WORSLEY, Alice F., 1973
Associate Professor of English
B.A. 1961, College of Notre Dame, Belmont; M.A. 1969,
Ph.D. 1973, University of California, Santa Cruz
YASUI, Roy Y., 1971
Professor of Education
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