UNIVERSITY OF SOUTHERN COLORADO

CATALOG 2001/2002

ACADEMIC CALENDAR 2001-2002

FALL AND SPRING SEMESTERS

Regular academic semesters consist of 15-week terms, including official holidays and the final examination period. Specific information about each academic semester is available in the class schedule bulletins published prior to the beginning of each term.

SUMMER COLLEGE

Summer College consists of multiple sessions. Specific information about Summer College is available in the class schedule bulletin published prior to the beginning of the first session from the Office of the Registrar.

FALL 2001

Graduation Planning Sheets Due ..... Apr 20 (01)

Registration Begins ..... Apr 2
Open Registration ..... Aug 24
Classes Begin ..... Aug 27
End Drop/Add ..... Aug 31
Thanksgiving Break ..... Nov 19-23
Classes End ..... Dec 7
Final Exams ..... Dec 10-14
Commencement ..... Dec 15

SPRING 2002

Graduation Planning Sheets Due ..... Oct 12 (01)
Registration Begins ..... Oct 22
Open Registration ..... Jan 11
Classes Begin ..... Jan 14
End Drop/Add ..... Jan 28
Spring Break ..... Mar 25-29
Classes End ..... Apr 26
Final Exams ..... Apr 29-May 3
Commencement ..... May 4

SUMMER 2002

Graduation Planning Sheets Due ..... Mar 08 (02)

Registration Begins ..... Apr 1
Open Registration ..... May 10

First 4, 6 and 12-week Sessions

Classes Begin ..... May 13
End Drop/Add
(First 4-week) ..... May 15
(First 6-week) ..... May 17
(12-week) ..... May 23
Classes End
(First 4-week) ..... June 7
(First 6-week) ..... June 21
(12-week) ..... Aug 2

Second 4-week Session

Classes Begin ..... June 10
End Drop/Add ..... June 12
Independence Day (USC Closed) ..... July 4 (Th)
Classes End ..... July 5

Second 6-week Session

Classes Begin ..... June 24
End Drop/Add ..... June 28
Classes End ..... Aug 2

Third 4-week Session

Classes Begin ..... July 8
End Drop/Add ..... July 10
Classes End ..... Aug 2

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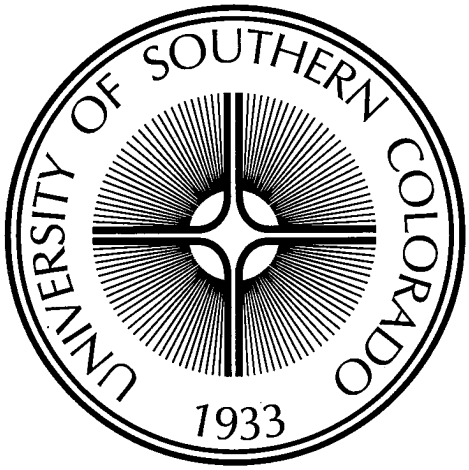
catalog issue 2001-2002

University of Southern Colorado
2200 Bonforte Boulevard
Pueblo, Colorado 81001

Telephone: (719) 549-2100
www.uscolo.edu

An Invitation

You are cordially invited to visit the University of Southern Colorado campus, meet members of the faculty and administration, and inspect the facilities of the university. Escorted tours of the campus will be provided on request. The administrative offices are open from 8 a.m. to 5 p.m. Monday through Friday. Please call or write the admissions office in advance of your visit: (719) 549-2461.



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UNIVERSITY OF SOUTHERN COLORADO

1-25 Exit 101 at U.S. 50. East to the University of Southern Colorado

CAMPUS LEGEND

1. PHYSICS/MATHEMATICS BUILDING
2. LIFE SCIENCES BUILDING
3. CHEMISTRY BUILDING
4. UNIVERSITY LIBRARY
5. CAPPS CAPOZZOLO ACADEMIC CENTER FOR THE ARTS (HOAG HALL)
6. UNIVERSITY VILLAGE AT WALKING STICK APTS.
7. BELMONT RESIDENCE HALL
8. USC CHILD CARE CENTER
9. HEATING PLANT
10. PHYSICAL PLANT
11. OCCHIATO UNIVERSITY CENTER
12. HEALTH, P.E. AND RECREATIONAL BUILDING (MASSARI ARENA, SAM JONES SPORTS COMPLEX AND LEVERT W. HOAG RECREATION CENTER)
13. ADMINISTRATION BUILDING
14. LINDBERG GARDEN
15. UNIVERSITY FOUNTAIN PLAZA
16. PSYCHOLOGY BUILDING
17. McKINNEY PAVILION
18. HASAN SCHOOL OF BUSINESS
19. TECHNOLOGY BUILDING
20. BUELL COMMUNICATIONS CENTER (KTSC-TV)
21. OUTDOOR CLASSROOM
22. OUTDOOR AMPHITHEATER

RAWLINGS OUTDOOR SPORTS COMPLEX

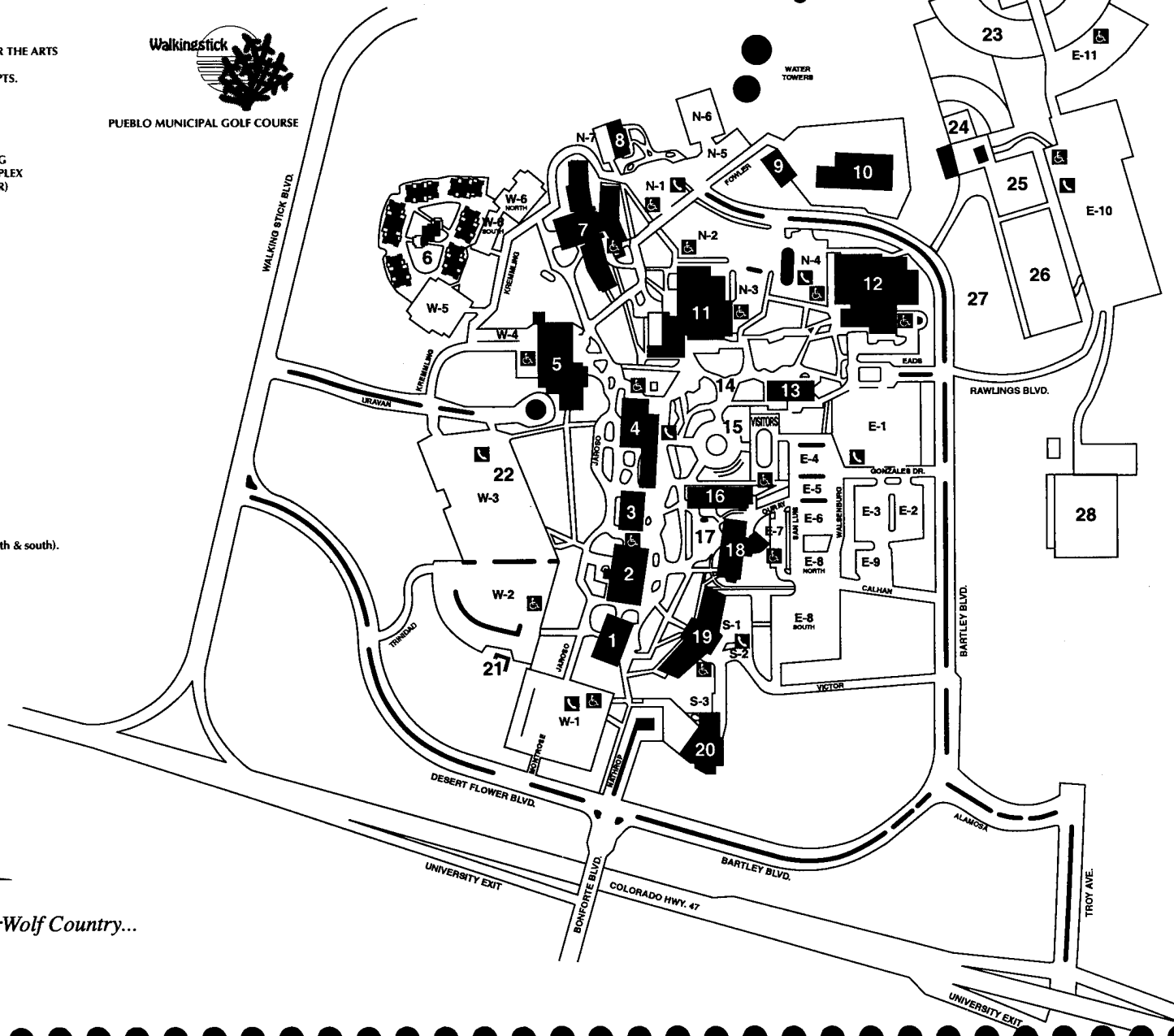
23. SOFTBALL
24. BASEBALL
25. TENNIS COURTS
26. ROPES COURSE
27. WEINDLING PARK
28. SOCCER FIELD

PARKING LOT SECTORS

NORTH: N-1, N-2, N-3, N-4, N-5, N-6, AND N-7.
EAST: E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8 (north & south), E-9, E-10 and E-11.
SOUTH: S-1, S-2, and S-3.
WEST: W-1, W-2, W-3, W-4, W-5 and W-6 (north & south).
(Visitors with permit may park in staff or student parking.)

Emergency Phones

ThunderWolf Country...



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Monday through Friday - 9:30 to 3:30 p.m. 549-2787

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COLLEGE OF EDUCATION, ENGINEERING, AND PROFESSIONAL STUDIES

Automotive Parts and Service Management ..... BS
Civil Engineering Technology ..... BSCET
Computer Information Systems ..... BS
Electronics Engineering Technology ..... BSEET
Exercise Science and Health Promotion ..... BS
Facilities Management and Technology Studies ..... BS
Industrial Engineering ..... BSIEN
Industrial and Systems Engineering ..... MS
Mechanical Engineering Technology ..... BSMET
Nursing ..... BSN
Recreation ..... BS
Speech Communication ..... BA
Speech Communication (Communication Disorders emphasis) ..... BS

Teacher Education Program

The Teacher Education Program collaborates with other academic units to offer program leading to Colorado teacher licensure in the following endorsement areas:

Art (K-12)
Elementary Education (K-6)
English (7-12)
Foreign Languages (Spanish 7-12)
Mathematics (7-12)
Music (K-12)
Physical Education (K-12)
Science (7-12)
Social Studies (7-12)

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Art ..... BA, BS
English ..... BA
Foreign Language-Spanish ..... BA
History ..... BA
History (Secondary Education Tract) ..... BS
Mass Communications ..... BA, BS
Music ..... BA
Political Science ..... BA, BS
Political Science (Secondary Education Tract) ..... BS
Psychology ..... BA, BS
Social Science ..... BA, BS
Social Work ..... BSW
Sociology ..... BA, BS

COLLEGE OF SCIENCE AND MATH

Applied Natural Science ..... MSANS
3+2 Joint Degree Program ..... BS + MSANS
Biology ..... BS
Chemistry ..... BS
Mathematics ..... BA, BS
Physics ..... BS

HASAN SCHOOL OF BUSINESS

Accounting ..... BSBA
Business Administration ..... MBA
3+2 Joint Degree Program - Management ..... BSBA + MBA
Business Management ..... BSBA
Economics ..... BSBA

CONSORTIUM PROGRAMS

The University of Southern Colorado also offers the following graduate programs through special consortium agreements:

Education and Human Resource Studies (Colorado State University) ..... M.Ed.
Social Work (Colorado State University) ..... MSW

MINORS

The following is a list of approved minors available at the University of Southern Colorado.

Accounting
Anthropology
Art
Automotive Parts and Service Management
Biology
Business Administration
Chemistry
Chicano Studies
Computer Information Systems
Coaching
Economics
Education
English
Entrepreneurship
Exercise Science
Facilities Management and Technology Studies
French
History
Honors
Industrial Engineering
International Studies
Italian
Leadership Studies
Marketing
Mass Communications
Mathematics
Military Science (ROTC Program)
Music
Philosophy
Physical Science
Physics
Political Science
Professional Biology
Professional Writing
Psychology
Reading
Recreation
Social Science
Sociology
Spanish
Speech Communication
Supervisory Management
Women's Studies

THE UNIVERSITY

HISTORY

The University of Southern Colorado has served the changing needs of the citizens of Colorado for more than 60 years.

In 1933, the institution was incorporated as The Southern Colorado Junior College. Classes took place on the top floor of the Pueblo County Courthouse. The "Class of 35" graduated 17 students. In 1936, the first building on the Orman Avenue campus site was donated by the Colorado Fuel and Iron Corporation. One year later, local citizens decided to support the institution with county taxes; they organized the Pueblo County Junior College District, and the institution was renamed Pueblo Junior College. In 1951, PJC became the first accredited junior college in Colorado.

A decade later, Colorado's General Assembly enacted legislation, effective in 1963, changing PJC to a four-year institution -- Southern Colorado State College -- to be governed by the Board of Trustees of State Colleges. SCSC received accreditation in 1966.

By then, four buildings had been erected on the new campus north of Pueblo's Belmont residential district. On July 1, 1975, the state legislature granted the institution university status. Three years later, the State Board of Agriculture assumed governance of the university. In 1986, USC, Colorado State University and Fort Lewis College joined to form the Colorado State University System.

MISSION

The University of Southern Colorado, in accordance with the mission defined by the Colorado Commission on Higher Education in 1978 and revised in 1985, provides a unique contribution to higher education in the state. USC strives to become an **excellent regional university** with a polytechnic emphasis, continuing its tradition of teaching effectiveness and increasing its efforts in basic and applied research while maintaining a high degree of service to the citizens of Pueblo, the region and the state.

USC is an accredited institution with a specific mission:

1) to emphasize career-oriented, technological and applied programs, while maintaining strong programs in the liberal arts;

2) to engage in basic and applied research for the benefit of society; and

3) to function as the major education resource for cultural, industrial and economic growth throughout the southeastern Colorado region.

The university accepts enthusiastically its role as a comprehensive regional university with a polytechnic emphasis. We believe that our special commitment to applied research and career oriented education, embracing but not limited to the technologies of engineering, science, and business, and grounded in an unalterable commitment to the traditional liberal and fine arts, creates a unique opportunity to educate the whole person. We resolutely embrace the conviction that while our liberal arts programs must be predicated on preparing students to engage in productive and meaningful living as well as to earn a living, our professional programs must maintain a strong liberal arts component to guard against the obsolescence of purely vocational and topical learning in a rapidly changing world.

High-quality teaching is the number one priority at the University of Southern Colorado. At the same time, faculty engage in scholarly activity to add to the store of knowledge in various disciplines and fields, and apply that knowledge to solving community and regional problems. Faculty involvement in research, as well as in scholarly and creative activities, substantially enhances the quality of teaching at the university. The University of Southern Colorado also places special emphasis on student development and success. To address this special emphasis, the university has made an unequivocal commitment to significantly improve the retention and graduation rates of all students.

In addition to the primary emphasis on teaching and the accompanying obligation to engage in scholarly endeavors, the university is committed to serving the surrounding community and region. The service obligation is fulfilled primarily through the processes of teaching and research, since the outcomes of those activities significantly address the needs of society. However, as a regional university which strives for excellence, we contribute to the overall quality of life and economic growth in our surrounding environment by sponsoring cultural events, clinical activities, student internships, research on community and business problems, and other special means of interaction.

To enhance its overall relationship with the city and region, the university is strongly committed to providing access for members of all minority groups, particularly the large Hispanic population within its service area, emphasizing and fostering cultural pluralism, enhancing the traditions of culture and language, encouraging the development of economic opportunities, providing appropriate academic support programs, and ensuring equal opportunity for all persons who are, or may become members of the university community.

Thus the university's mission has three components: teaching (the primary emphasis), scholarly activity (necessary to the advancement of knowledge and to high-quality teaching) and service (contributing to the development of the city and region).

GOALS AND PRIORITIES

In fulfilling its basic mission, the university regularly establishes long-range and short-term goals. Students, faculty, staff and administrators actively work together to achieve such important goals and to establish priorities for the institution's future. Copies of the most recent strategic plan are available for inspection in the Office of Finance and Administration.

GOVERNANCE

As part of the Colorado State University System, the University of Southern Colorado is governed by the State Board of Agriculture, which also governs Fort Lewis College in Durango and Colorado State University in Fort Collins. The Colorado Commission on Higher Education, the central policy and coordinating board for all public institutions, establishes policy on legislative, academic and fiscal matters.

ACCREDITATION

The University of Southern Colorado is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools, 3030 N. LaSalle St., Suite 2400, Chicago, Il, 60602-2501, phone (312) 263-0456.

Individual programs approved by accreditation agencies include; chemistry, the American Chemical Society; civil, electronics, and mechanical engineering technology, the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET); industrial engineering, the Engineering Accreditation Commission of ABET; education, the Colorado State Board of Education; music, the National Association of the Schools of Music; nursing, the National League for Nursing; and social work, the Council of Social Work Education.

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY COMMITMENT

The University of Southern Colorado is committed to providing an environment free from unlawful forms of discrimination, including sexual harassment, against any person based upon race, color, ethnic background, religion, gender, national origin, age, sexual orientation, disability, or status of veteran of the Vietnam Era.

Also, the university provides affirmative action to ensure that protected class applicants are employed and that all employees are treated fairly during employment without any regard to the aforementioned protected groups, in accordance with the laws of the United States and the State of Colorado. Such action includes, but is not limited to, affirmative efforts with respect to employment, promotion, transfer, recruitment, advertising, layoff, retirement, or termination; rate of pay or other forms of compensation and selection for faculty development activities. The university posts in conspicuous places notices setting forth the provision of nondiscrimination policy, affirmative action plans and programs, and equal opportunity commitments.

The university prohibits discrimination based on the aforementioned criteria above in admission or access to, treatment of, or employment in its educational programs or activities. The Americans with Disabilities Act (ADA) prohibits any form of discrimination based on disability in admission to, access to, and the operations of programs, services or activities at the University of Southern Colorado. Inquiries concerning Titles IV, VI, and VII of the 1964 Civil Rights Act Section 504, ADA, and Title IX of the Education Amendments of 1972 may be referred to Affirmative Action Director, University of Southern Colorado, 2200 Bonforte Boulevard, Pueblo, Colorado, 81001-4901, phone (719) 549-2936 or Office of Civil Rights (OCR) Department of Education, Colonnade Center, 1244 Speer Blvd., Denver, CO 80204-3582. Any questions, complaints and requests for additional information of ADA may be directed to the ADA Coordinator at (719) 549-2511.

THE CAMPUS

USC's campus, spanning more than 275 acres, crowns the north end of Pueblo, a historically and culturally rich city of 100,000 located near the Greenhorn Mountains in the colorful Pikes Peak region of southern Colorado.

Fourteen of the 16 buildings on campus, as well as fountains and pathways, follow the grand and unusual architecture of the University Library complex, which received a national award for design in 1966 from the American Institute of Architects and the U.S. Office of Education.

Approximately 320 sunny days a year attract outdoor enthusiasts to a full slate of summer and winter recreational activities, encompassing water sports at Lake Pueblo, biking along Pueblo's unique river trails, white water rafting, golf, tennis and skiing in the mountains to the west.

Enrollment exceeds 4,000 students from throughout southeastern Colorado, the state, the nation and several foreign countries, representing a diversity of age groups and backgrounds, both rural and urban.

TERMS OF THIS CATALOG ISSUE

Students graduate under the catalog requirements noted in the *Academic Policies* section of this catalog. The 2001-02 issue becomes effective fall semester 2001.

Information contained within the catalog is current as of April 2001, but is subject to change without notice and therefore is not to be regarded as an irrevocable contractual commitment. Modification may occur at any time during the student's term of residence in the interest of lawful missions, processes and functions of the institution. The university will make reasonable efforts to inform students of any modifications occurring prior to publication of the 2002-2003 catalog issue.

ADMISSION

The University of Southern Colorado welcomes applications from all persons interested in post-secondary education. The Office of Admissions and Records is located in the Administration building. Prospective students may obtain information about all USC programs, as well as university admission procedures, from the Office of Admissions and Records. Campus tours are available Monday through Friday. Prospective students should make advance arrangements for a tour by calling 877-USC-WOLF (toll free) or (719) 549-2461.

All correspondence concerning admission and campus visits should be addressed to the Office of Admissions and Records, University of Southern Colorado, 2200 Bonforte Boulevard, Pueblo, CO 81001-4901 or by e-mail to info@uscolo.edu.

ENTERING FRESHMEN

Admission Standards

The University of Southern Colorado's admission process is designed to promote diversity within the student population and to assure equal access to qualified applicants. The final admission decision is based on the applicant's potential for attaining a degree at the university.

First-time applicants are eligible for consideration for admission to the University of Southern Colorado if the CCHE admissions index score is 80 or higher. The score can be achieved by various combinations of high school grade-point average and ACT composite or SAT combined scores. Such combinations include:

High School GPA	Minimum ACT or	SAT Composite
2.000	23	1030 - 1050
2.300	20	910 - 930
2.600	18	830 - 850
3.000	15	730 - 740
3.300	13	630 - 660

If applicants do not achieve an index score of at least 80, the credentials will be reviewed by an admissions committee which will base a recommendation for admission on:

1) the applicant's academic and personal potential to benefit from or contribute to university programs; and

2) the applicant's previous academic record.

Students with non-traditional backgrounds are encouraged to apply.

- NOTE: Acceptance by the university does not necessarily mean acceptance into a particular degree program, some of which have admission requirements beyond those of the university.

Admission Requirements

Students may apply any time after the completion of their junior year in high school. One official transcript of high school work should be sent directly to the Office of Admissions and Records from the high school, and a final transcript must be submitted after the applicant graduates from high school. Students who apply on the basis of the General Education Development (GED) tests in place of high school graduation must have the agency issuing the GED tests forward the test scores (not the certificate) to the Office of Admissions and Records.

Applicants must submit:

1) a completed USC application;

2) a $25 application fee (non-refundable);

3) an official transcript of high school records or GED scores **(Transcripts must be sent directly to USC from the high school to be considered official)**; and

4) scores from either the ACT or the SAT.

NOTE: Applicants who have completed their secondary education through alternative options such as home schooling should submit documentation of that education (i.e., transcript, portfolio, narrative statements of accomplishment, etc). Consideration for admission will be in a similar manner as that for applicants from traditional high school programs, but additional emphasis will be placed on scores obtained on standardized examinations.

Graduates of Colorado high schools participating in the standards based admissions project will be considered according to the current state guidelines for that project.

Minimum High School Academic Preparation Standards (MAPS)

Students who meet the course requirements for graduation from a Colorado high school also meet the minimum academic preparation standards for admission to the University of Southern Colorado. However, to be prepared to take full advantage of the university's academic programs, and to strengthen the probability of graduation and career success, the university strongly recommends that students complete the following course work while in high school:

- four years of English;
- three years of mathematics including two years of algebra and one year of geometry;
- two years of natural science including at least one year of physical science;
- two years of social studies including American government; and
- two years of a single foreign language.

Advanced Placement

See Credit by Examination (Academic Policies section).

TRANSFER STUDENTS

Students who have attended other colleges or universities and are seeking admission to USC for the first time must submit:

1) a completed USC application;
2) a $25 application fee (non-refundable);
3) official transcripts sent directly to USC from each college attended. **Transcripts must be sent directly to USC from each college/university attended to be considered official**; and
4) Final high school transcripts and ACT or SAT scores must also be submitted if total transfer credits earned are less than 30 semester hours.

Note: Transfer students who have less than 30 collegiate semester credit hours must meet the first-time freshmen standards and have a 2.000 GPA in previous college courses. This includes international applicants.

Transfer students must be in good standing at the institution last attended and have at least a 2.000 cumulative grade-point average. If not, the records will be reviewed and a recommendation on admission will be made by the admissions committee.

Students who are enrolled at another institution at the time application for admission is made to USC should arrange to have one official transcript from the current institution sent with the application. A final transcript should be sent when the final term is completed.

Transferred credit will be evaluated as soon as possible after official transcripts have been received from all colleges previously attended and the student has been accepted for admission.

Each student must indicate all previous college experience on his or her application. Applicants may not ignore previous college attendance. Students who fail to inform the Office of Admissions and Records of all previous college work will be subject to delay of admission, loss of credit, rejection of application and/or cancellation of enrollment.

Transfer Agreements

USC is dedicated to the concept of guaranteed transfer opportunities for students enrolled at any of Colorado's public two-year and four-year institutions. Information on transfer agreements is available in the Office of Admissions and Records. Additional information appears in the *Academic Requirements* section of this catalog.

Transfer of Credit

Transfer students should be aware of the 10-year time limit on credit earned toward a bachelor's degree, which applies to both transfer and resident credit. (Additional information appears in the *Academic Requirements* section of this catalog.)

Credit is accepted by USC from institutions accredited by the North Central Association of Colleges and Secondary Schools or similar regional accrediting bodies. For credit toward degree requirements, USC accepts a maximum of 60 semester hours from community or junior colleges and/or a maximum of 90 semester hours from four-year institutions.

Transfer grades and credits are not computed within the cumulative grade point average earned at the University of Southern Colorado. Courses with grades of D or F are not accepted for transfer with two exceptions: (1) Grades of D in General Education courses are accepted in transferring Colorado Community College and Occupational Educational System core courses if the student has fully completed either an AA or AS degree with at least a

2.000 cumulative grade-point average; (2) Credit earned by a USC student participating in the National Student Exchange will be treated as resident credit. The courses, grades and credits will be recorded on the USC transcript as if they were earned in residence at this university.

The University of Southern Colorado may accept the AA or AS degree from other states as fulfilling the university's general education requirements. Transcripts will be reviewed on request by the Office of Admissions and Records to determine if general education requirements are satisfied. Credit from an institution without regional accreditation may be accepted by petition for transfer after the student has completed at least 24 semester hours at USC with a C (2.000) average or better.

The university accepts up to eight semester hours of cooperative education courses in transfer. Cooperative education course work, to be acceptable, must include a clearly defined academic element, such as a study plan or reading assignments.

Military service credit is evaluated when official copies of certificates are received at USC. Courses are evaluated according to the American Council on Education (ACE) Guidelines. A maximum of 20 semester hours of credit is counted toward a baccalaureate degree. Credit is not given for military service work experience.

Acceptance of credit does not necessarily mean that a specific department will accept the same credit toward its major requirements. Each department evaluates transfer courses to determine applicability to major and minor requirements.

All application materials for applicants who decide not to enroll for the term for which they applied will be kept on file in the Office of Admissions and Records for one year.

College Level Examination Program

See Credit by Examination (Academic Policies section).

Appeals Process

If a student disputes the university's evaluation of credits from other Colorado public institutions, the student must file a written appeal with the Director of Admissions and Records within 15 calendar days of receiving the evaluation. If the student fails to file an appeal within the 15-day period, the decision made in the transfer evaluation will be binding.

The Director of Admissions and Records will have 30 calendar days to review the appeal and notify the student in writing of the decision including the rationale for the decision. In addition, the student will be notified in writing about the process for appealing and the appeal decision should the student feel that reasonable doubt exists.

If the Director of Admissions and Records fails to inform the student of the available appeal options, the appeals decision shall be null and void. The student's request prevails and cannot be overturned by any institutional administrator or committee.

A student may appeal the first appeal decision in writing to the provost. The appeal must be filed within fifteen (15) calendar days of the postmark date of the letter from the Director of Admissions and Records regarding the first appeal decision.

The university must hear and reach a decision on the appeal within fifteen (15) calendar days after the appeal is filed. The student will be notified in writing by the university of the decision regarding the appeal and the rationale for the decision. In addition, the student shall be informed in writing about the subsequent process for appealing the institutional transfer decision, if the student chooses to do so.

The student may appeal the institutional decision by writing the Vice Chancellor for Academic Affairs of the Colorado State University System (CSUS). The appeal must be filed within five (5) calendar days of the postmark date of the letter notifying the student of the institutional decision. If the student fails to file an appeal within this time period, the institutional decision shall be binding.

The Vice Chancellor for Academic Affairs shall review and reach a decision on the appeal within five (5) calendar days after the appeal is filed. The student will be notified in writing of the decision regarding the transfer appeal and the rationale for the decision. In addition, the institution shall inform the student that the decision may be appealed further by writing to the Colorado Commission on Higher Education (CCHE). The appeal must be filed within five (5) calendar days of the postmark date of the letter notifying the student of the vice chancellor's decision.

Graduation Cum Laude

Transfer students who wish to be considered for graduation cum laude, magna cum laude, or summa cum laude must request a recomputation of grade-point average as outlined in the *Academic Policies* section (Deans' List and Graduation Cum Laude) of this catalog.

INTERNATIONAL STUDENTS

Students who are residents of another country must submit the following to be admitted to USC:

1) the official international application for university admission, accompanied by a $30 fee;

2) two official transcripts of all work completed either in high school or in college (or the equivalent). One transcript must be in the native language, one in English. Both must show courses taken, grades earned, length of classes and length of school terms. All transcripts must bear the official seal of the issuing institution and must be sent by that institution directly to the Office of Admissions and Records. An explanation of all transcript terminology must be included;

3) results of an English language proficiency test. **First-time freshmen students:** A score of **500** on the Test of English as a Foreign Language (TOEFL) paper-based test, a score of **173** on the TOEFL computer-based test, a minimum score of **80** on the Michigan Test of English Proficiency, or completion of the advanced level at an English language training center is required. **Transfer students:** A score of **500** on the Test of English as a Foreign Language (TOEFL) paper-based test, a score of **173** on the TOEFL computer-based test, or a minimum score of **80** on the Michigan Test of English proficiency is required. In addition, transfer students must have an overall cumulative grade-point average of 2.000 or above. English language proficiency tests are not required of students from countries where English is the native language.

4) a financial statement regarding the resources available to the student during his or her stay in the United States. An international student cannot be accepted without this statement, since no institutional funds are available to support international students.

The Office of Admissions and Records reserves the right to change policy. Exceptions are at the discretion of the Director of Admissions and Records.

No international student application for admission will be considered until all required materials are complete. All materials must be received by the Office of Admissions and Records by the application deadlines.

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAM

See Credit by Examination (Academic Policies section).

RETURNING STUDENTS

Students who have been enrolled and received a grade notation in a course (see Academic Policies for grade notations), but whose attendance was interrupted for two or more regular semesters, excluding summer, are required to file an application for readmission by the admissions deadline of the semester in which they wish to enroll. Students seeking readmission must submit a $25 reapplication fee (non-refundable). Students whose previous USC work resulted in a cumulative grade point average below 2.000 ("C") must also provide a written statement detailing the previous academic difficulties, the student's plans to overcome these difficulties and any other pertinent information to assist the admissions committee in making a decision.

Students who withdraw, or are withdrawn, from the university for any reason and are subsequently readmitted after an absence of two or more semesters excluding summers, are governed upon readmission by the catalog current at the time of readmission. Any exceptions to the policy must have prior approval from the provost. Degree-seeking students who have attended another post-secondary institution or have taken college-level correspondence or extended studies courses must provide complete official transcripts of such studies.

ACADEMIC RENEWAL

Students who return to the University of Southern Colorado after an absence of at least two years, have not attended full-time at any other college or university, and whose cumulative USC grade point average is below 2.000, are eligible for academic renewal. Students who take advantage of the Academic Renewal Policy will not have grade-point averages carried forward upon readmission. Courses with grades of A, B, or C are eligible to count toward graduation; courses with grades of D or F are not. Students must be currently enrolled for academic renewal to be processed. **Academic renewal will not be granted more than once.**

Any college credit earned more than 10 years before the date of readmission is not applicable toward the degree desired unless approved by the chair of the department offering the course(s) [or equivalent(s)], and by the appropriate dean. Courses petitioned for general education credit must also be approved by the Office of Admissions and Records.

Students who elect academic renewal will be required to complete at least 30 hours of credit after readmission before they are eligible for a baccalaureate degree.

The Academic Renewal Application can be obtained from the Office of Admissions and Records.

UNCLASSIFIED STUDENTS

Students may enroll at the University of Southern Colorado as unclassified (non-degree seeking) students if one of the following categories applies.

Special Student:

Special student status is reserved for applicants who are 20 years of age or older and who wish to enroll in courses without degree-seeking status. Applicants who wish to register as special students are required to file an application with the Office of Admissions and Records each term that they wish to enroll.

A special student may carry up to 15 hours per semester and may earn a maximum of 30 semester hours while maintaining special student status. The student must maintain a 2.000 cumulative grade-point average as a special student. Special students who wish to exceed the 30-semester-hour maximum may file a petition with the Office of Admissions and Records. However, no more than 30 semester hours may be applied to the baccalaureate degree should the student decide to become a degree candidate.

Degree-plus Student:

Non-degree-seeking students who have completed a baccalaureate degree may enroll as unclassified degree-plus students after filing the appropriate application with the Office of Admissions and Records.

Guest Student:

Students who have enrolled as degree candidates at other institutions of higher education may enroll for the summer term at the University of Southern Colorado as guest students. Guest students must complete the appropriate application with the Office of Admissions and Records.

National Student Exchange:

The university is affiliated with the National Student Exchange Program (NSE), a consortium of state colleges and universities throughout the United States that arranges for students to study on various campuses as guest students. The exchange enables students to get better acquainted with different social and educational patterns in other areas of the country while paying USC tuition. The student must be approved for participation by both their home and the receiving institution. USC sophomores and juniors interested in learning more about this opportunity should contact the Office of Admissions and Records in the Administration Building for an information packet and instructions on the application process. Applications must be submitted early in the spring semester prior to the academic year in which an exchange is planned.

Credit earned by a USC student participating in the National Student Exchange will be treated as resident credit. The courses, grades and credits will be recorded on the USC transcript as if they were earned in residence at this university.

High School University Program:

Under Colorado's Postsecondary Options Act, high school juniors and seniors may register for classes at the university. Students must submit an admission application approved by their high school counselor, principal and parents for each term they wish to enroll. In some cases, the high school district may pay students' tuition. Students in the PSO program are considered unclassified (non-degree seeking) students at the university. Information on such programs is available in the Office of Admissions and Records.

The University also offers a Senior-to-Sophomore (STS) program by agreement with various high school districts. High school students in this program are afforded the opportunity to study in university level courses while remaining in their high school classrooms and are considered classified students by the university. Students must submit an application for admission, transcript of their high school record and ACT or SAT scores. Those STS students who are in their senior year are given consideration for admission as regular first-time students for the fall semester following their high school graduation. Students interested in this program are encouraged to seek information from their high school guidance counselor or from the university's Office of Continuing Education at 719-549-2316.

Senior Citizens:

Persons 65 years of age or older, or 62 and retired, may audit courses on a space-available, unclassified-student basis without paying tuition. Permission of the instructor is required. Unclassified students are ineligible to receive financial assistance from the university, including aid from all federal and state financial assistance programs.

Veterans

Veterans must follow the admission requirements and procedures outlined in this catalog. For certification of eligibility for education benefits under one of the Public Laws, students can apply for Veterans Administration benefits through the Office of Veterans Affairs in the Administration Building, Room 207.

ADMISSION PROCEDURES

Application Deadlines

The application for admission as a degree seeking student and all other required documents must be received at least ten days prior to the start of the term for which the applicant wishes to enroll. Applications and supporting documents received after this point but prior to the end of the first week of classes will be given consideration if space is available.

RESIDENCE CLASSIFICATION

A person moving to Colorado must be domiciled in the state for 12 continuous months before becoming eligible for a change in residence classification. To qualify for in-state classification for tuition purposes as a resident of Colorado, a person must do more than just reside in Colorado for the preceding 12 continuous months. "Residency" in this context means legal "domicile," which requires intent to remain in Colorado indefinitely in the sense of making one's permanent home in the state. The distinction is that one may have any number of residences at one time, but never more than one domicile.

A particularly relevant point is that one retains a former domicile until a Colorado domicile is established by the 12-month residency.

Intent is determined by:

1) the student's written declaration of intent to remain in Colorado indefinitely, i.e., the student has no present intent to leave the state now or in the future;

2) documented evidence of overt actions that link the student to Colorado.

Examples which establish intent are: payment of Colorado state income tax, a Colorado driver's license, Colorado motor vehicle registration, the compliance with mandatory duty upon a domiciliary of the state, and voter registration. Obviously, the specific actions that establish intent vary according to the individual and the circumstances, but each individual must, with his/her circumstances, act consistently with the stated intent. An information brochure pertaining to the establishment of residency for tuition purposes may be obtained by writing to the Office of Admissions and Records.

A student's classification as a Colorado resident for tuition purposes is made by the university at the time of admission, according to Colorado statutes. Any student classified as a nonresident who believes that he/she can qualify as a resident may obtain a petition and a copy of the statutes governing tuition classification from the Office of Admissions and Records. The petition is processed only if the student has an application for admission on file or is currently enrolled. The petition is due no later than the day before the first day of class for the semester in which the change is requested. Deadlines are published in each semester class bulletin.

Students 23 years of age or under who are independent from their parents must prove emancipation and demonstrate residency on their own qualifications. Students must notify the Office of Admissions and Records if their status changes from resident to nonresident. Any student who willfully gives wrong information to avoid paying nonresident tuition is subject to legal and disciplinary action.

OFFICE OF FINANCIAL SERVICES

TUITION AND FEES

Tuition and Fee rates and payment deadlines are published in the class schedule bulletins for each semester. All fees and charges listed **in the class schedule bulletin** are subject to change because of action by the governing board prior to the beginning of the semester. The governing board normally acts on tuition and fee charges at its June meeting prior to the start of the academic year. Current information may be obtained from the class schedule bulletin available in the Office of Admissions and Records or by calling the Office of Financial Services at (719) 549-2753.

Payment of Tuition and Fees

Tuition and fees are assessed in accordance with approved policies. Instructions for payment and payment deadlines are stated in the class schedule bulletins. Specific information about tuition and fees is given in the *Student Expenses* section of this catalog.

Tuition rates are established by the State Board of Agriculture following budget action of the Colorado General Assembly. Tuition rates for any succeeding fiscal year are not known until the period of March to June of each year, when appropriations are made. The State Board of Agriculture therefore reserves the right to change the tuition and fees at any time.

SPECIAL FEES

There may be other fees associated with certain classes offered at the University. Please verify the outstanding balance due by contacting the Office of Student Financial Services at (719) 549-2753.

PARKING:

Parking decals may be obtained at the Cashier's Window in the Administration Building.

PAYMENTS

Payment plans are available. Please refer to the current semester course bulletin for specific due dates. Students will be assessed a monthly 1.5% extended payment charge on any outstanding balance.

ADDITIONAL PROCEDURES

Additional procedures are published before the beginning of each semester in the semester course bulletin. The procedures described include the distribution of financial aid, payment-due date, drop/add and withdrawal, administrative withdrawal for non-payment and refund policies. Students will be held responsible for adhering to the policies and procedures contained in the bulletin.

DELINQUENT STUDENT ACCOUNTS

Students are subject to any or all of the following actions if they have a delinquent debt to the university:

- Administrative withdrawal
- Transcripts held
- Degree not conferred
- No future course registrations allowed
- Turned over to a collection agency

Reasonable collection/legal costs will be added to the amount due. Any student who pays with a check that is returned unpaid by his/her bank will be subject to all of the penalties for late payment and also will be charged an additional $17 fee.

ADJUSTMENTS

The Tuition Adjustment Appeals Committee will consider requests for adjustment to billed tuition and fee charges when a student must withdraw due to extenuating circum-stances. Please see the semester course bulletin for procedures on how to file an appeal.

Any student expelled from the University is not eligible for an adjustment. No adjustment/refunds of tuition and fees will be made to a student who is suspended, dismissed or expelled for a breach of discipline.

FINANCIAL ASSISTANCE

Financial aid is a resource for students and parents seeking monetary assistance to help defray the costs of higher education. Eligible students who demonstrate financial need may receive assistance from the federal government and/or the State of Colorado in the form of grants, loans, work-study and/or scholarship funds. Students may obtain applications and other necessary forms from the **Office of Student Financial Services**, Administration Building, Room 212, phone (719) 549-2753.

The primary responsibility for educational costs resides with the student and the student's family. Assistance offered through the Financial Aid Office is intended to supplement the family contribution. Requests for assistance always exceed the funds available and federal monies are allocated according to documented financial need.

STUDENT FINANCIAL SERVICES POLICIES

Students must complete all necessary forms and submit requested documents to be considered for financial aid. Funds are awarded on a first-come, first-served, need basis.

Financial Aid Application Steps

1) To be considered for financial aid, students must be accepted for admission in a degree program. (Please note: Financial aid students can receive funds as "undeclared" until they have earned 45 credit hours, including transfer credits. After reaching 45 credit hours, a major area of study must be declared.)

2) Complete and mail (to the processor) by **March 1**, a **Free Application for Federal Student Aid** (FAFSA), available at local high schools, colleges and universities.

The **USC school identification code is: 001365**

3) Once the FAFSA has been processed, students will receive a **Federal Student Aid Report**, which will be electronically submitted to all the schools listed on the FAFSA.

4) Students whose data has been selected for **verification** will be required to submit a verification form, and any other requested documents, and a copy of the tax return(s) used to complete the FAFSA prior to being awarded.

5) Students who transfer mid-year must submit a Financial Aid Transcript (obtained in

6) any financial aid office) for each college, university, technical and/or trade school previously attended.

Definition of Good Standing

Students are considered to be in good standing for financial aid purposes if they are eligible to be enrolled in accordance with the guidelines established by the university and the Office of Student Financial Services.

Continuing students must be in good standing and comply with the financial aid Satisfactory Academic Progress Policy; and **must reapply for aid each year.**

Students may **not** receive financial aid if they are:

1) on financial aid suspension or academic suspension;

2) in default on student loans or owe refund or repayment on grants previously received to attend USC or other institutions; and

3) non-citizens or not permanent residents of the United States.

SATISFACTORY ACADEMIC PROGRESS POLICY

The University of Southern Colorado is committed to assisting students to meet their financial obligations as they pursue their educational objectives. Thus, the University provides a variety of federal, state and institutional financial assistance for eligible students.

Federal and state regulations require that all students applying for or receiving financial assistance at the University meet standards for satisfactory academic progress to maintain eligibility for their financial assistance.

In order to comply with these regulations, the University has developed this satisfactory academic progress policy. The policy is designed to measure minimum acceptable academic progress for financial assistance purposes.

The Office of Student Financial Services will review student compliance with academic progress annually at the end of the spring semester.

The following are the criteria considered in the policy review process:

Satisfactory Progress

Students who meet all of the following five tests are making satisfactory progress for financial assistance purposes:

I. Degree Seeking:

Students must be enrolled as degree-seeking students who are seeking their first bachelor's degree, seeking a second bachelor's degree or seeking a master's degree.

II. Credit Hours Earned:

A student enrolled at the University must satisfactorily earn a minimum number of credit hours per academic year as indicated on the following table. Satisfactory completion is defined as receiving a passing grade of A, B, C, D or S for courses attempted. The following table indicates the minimum number of hours that a student must earn per academic year:

	Undergraduate Students	**Graduate Students**
Full-Time	18	13
Three Quarter-Time	13	10
Half-Time	9	7
Less Than Half-Time	6	3

III. Cumulative Credit Hours Limit:

Students at the University may attempt a maximum number of credit hours while pursuing a degree. Students will be allowed to attempt a maximum of 120% of the number of hours required by the degree-granting program in which they are enrolled. Maximum credit hours attempted include hours transferred from an institution that a student may have previously attended.

For example, students who are pursuing their first bachelor's degree in a program that requires a total of 128 earned credit hours for completion will be allowed to attempt 154 credit hours. A student who is pursuing a second bachelor's degree may attempt a maximum of 36 credits in degree-plus status. A graduate student may attempt a maximum of 44 credit hours.

IV. Cumulative Grade Point Average (GPA):

Students must maintain a minimum GPA while receiving financial assistance at the University. The GPA requirements are set forth in the University Academic Progress Policy. The following table reflects the current academic performance that will be required:

Undergraduate Students

Credit Hours Attempted	Required Minimum Cumulative GPA
1-12	1.500
13-24	1.600
25-36	1.700
37-48	1.800
49-59	1.900
60+	2.000

Degree Plus Students

Students who choose to work on a second undergraduate degree or are working toward professional certification must maintain a cumulative GPA of 2.000.

Graduate Students

Students enrolled in a graduate program must maintain a cumulative GPA of 3.000.

V. Program Interruption:

A student must not have 1) totally withdrawn from the University or 2) been administratively withdrawn from the University to maintain eligibility for financial assistance. Total withdrawal is defined as a student officially dropping all courses.

Financial Aid Suspension

By failing to comply with the satisfactory academic progress policy of the University, a student will be placed on suspension for a period of three years and is ineligible to receive any financial assistance during that period. Suspension does not prohibit the student from continuing with his/her educational goals.

It is extremely important to note that while a student may not be on academic suspension at the University, he/she may still be placed on financial aid suspension.

Terms of Suspension

Suspension will be effective in the fall semester of each academic year. A student placed on suspension will remain on suspension until an appeal for reinstatement has been submitted and approved by the University or a three year period has lapsed from the date of suspension.

Appeal Process

A student who has been suspended may appeal the suspension. The student must initiate the appeal process after the Office of Student Financial Services has notified him/her of suspension. The following suspension types require certain documents that must be submitted to the Office of Student Financial Services in order to have a suspension reviewed:

Suspended for insufficient credit hours earned and insufficient GPA:

- A letter which details the mitigating circumstances that resulted in the student not being able to earn the required number of hours.
- Two letters of support from individuals (i.e. instructors, counselors, etc.) who are informed about the specific circumstances and will support the appeal.
- A current unofficial academic transcript.

Suspended for exceeding the maximum hours attempted:

- A letter which explains the reasons why the student has been unable to complete his/her degree requirements within the allowable limit.
- A current unofficial academic transcript.
- A graduation planning sheet.

The Financial Aid Suspension Committee reviews appeals for reinstatement on a weekly basis. However, in order to be considered for reinstatement for a specific semester, the appeal must be turned into the Office of Student Financial Services no later that the first day of class for that semester. Any appeals turned in after that date will be considered and if approved, reinstatement will be for the subsequent semester.

Please submit all of the required documentation to:

Financial Aid Suspension Review Committee
University of Southern Colorado
Office of Student Financial Services
Administration Building, Room 212
2200 Bonforte Blvd.
Pueblo, CO 81001-4901

If an appeal is denied, the student has the option of appealing the committee's decision to the Associate Director of Student Financial Services. The Associate Director of Student Financial Services hears appeals for a specific semester until the last day of the Add/Drop period of the semester in question.

Students should contact the Office of the Student Financial Services at (719) 549-2753 to make an appointment.

The following definitions and terms are used in the Financial Aid Satisfactory Progress Policy.

Incompletes and Grade Changes

Grade changes or grades of "incomplete" which affect a student's financial aid suspension status must be changed or completed prior to the drop/add deadline of the subsequent fall semester in which the student enrolls. Students must deliver documentation of grade changes to the Office of Financial Services no later than the end of the second week after the drop/add period of the next semester.

"Credit hours attempted" are all credit hours for which the student registers (enrolls).

Remedial Courses

Remedial courses (below 100 level) are counted toward hours attempted per semester, but not counted toward the maximum credit hours attempted, nor toward a degree program.

Academic Renewal

Students who are approved for academic renewal are considered under the same criteria as the transfer student, with regard to the GPA and total hours earned. Contact the Office of Admissions and Records for the academic renewal policy.

Transfer Students

Transfer hours accepted at USC are counted in the total hours attempted. Therefore, transfer students must earn the USC grade-point average required for the credit-hour level that includes transfer hours accepted in order to maintain eligibility for financial aid.

For example, a student who transfers 30 hours from another college and has attempted 30 at USC for a total of 60 hours is expected to maintain a 2.000 cumulative GPA.

Financial Aid Probation

There is no probation period prior to financial aid suspension.

Financial Aid Suspension

Financial aid suspension is defined as a condition in which students are no longer eligible to receive financial aid of any kind including all loans, grants, work-study and scholarships.

Reinstatement

Students whose appeals are approved will be awarded based on available funds. Those reinstated must meet the criteria established in the Financial Aid Satisfactory Academic Progress Policy. If they fail to meet criteria, they will be suspended and, again, have an opportunity to appeal.

FINANCIAL AID PROGRAMS/GRANTS

Federal Pell Grant

A Federal Pell Grant is an award to help undergraduates pay for an education after high school. The Federal Pell Grant program describes an undergraduate as one who has not earned a bachelor's degree.

For many students, Federal Pell Grants provide a foundation of financial aid to which aid from other federal and non-federal sources may be added.

Students must re-apply each year. The period of eligibility is the length of time required for completion of the first baccalaureate course of study.

Colorado Student Grant (CSG)

The CSG is awarded to undergraduate residents on the basis of financial need. The amount of the grant cannot be greater than $5,000 per academic year. Funds are provided by the Colorado General Assembly.

Federal Supplemental Education Opportunity Grant (FSEOG)

The FSEOG is a form of non-repayable financial aid and is designed to assist undergraduate students with exceptional need, targeted to Federal Pell Grant recipients and other exceptional need students. Awards may not exceed $4,000 per year.

Colorado Leveraging Educational Assistance (CLEAP) Partnership

The CLEAP is awarded to undergraduate resident students on the basis of financial need. The amount of the grant cannot be greater than $5,000 per academic year. The CLEAP consist of one-half state and one-half federal funds.

WORK-STUDY

College Work-Study Program (CWSP)

The CWSP is designed to provide jobs to students who, without the earnings from the employment, could not attend the university. The program is funded by both the federal government (Federal work-study) and the Colorado General Assembly. The university annually employs approximately 700 students in the work-study program.

Full-time Work-study

Full-time work-study is a program designed to provide students with employment during the summer. A portion of the earnings from the employment must be used to offset educational costs of the next academic year.

To be eligible, students must:

1) enroll at the university for the next academic year as degree-seeking (classified) students;

2) have an award letter which indicates an offer of work study,

3) complete separate applications for the summer full-time work-study and for the next academic year by the specified date;

No-need Work-study

The no-need work-study program is funded by the Colorado General Assembly. To be eligible, students must be undergraduate Colorado residents.

Students are selected for the program if qualifications are met and if funds are available. The average no-need work-study award for the academic year is $2,250. Students must apply for need-based financial aid and must be found not eligible for need-based assistance in order to qualify for the no-need program. They must complete the Free Application for Federal Student Aid (FAFSA). Students should not assume that they will be found ineligible for need-based financial aid. Those who are declared ineligible for need based work-study, however, may qualify for no-need work-study.

FEDERAL FAMILY EDUCATION LOANS

Prior to any federal education loan (Federal Stafford or Federal PLUS) being certified by USC, the applicant must complete the financial aid application process (including the free application for Federal Student Aid).

Federal Perkins Student Loan

(Formerly titled National Direct Student Loan-NDSL) a Federal Perkins Loan is a low-interest (5 percent) loan to help exceptionally needy students pay for post-secondary education. USC must disclose the loan disbursement and default status to a credit bureau organization.

Students may be eligible to borrow up to a total of:

- $4,000 a year as an undergraduate if they are enrolled in a degree program, leading to a bachelor's degree;
- $6,000 a year as graduate students enrolled in a master's degree program;
- $20,000 aggregate if they are undergraduates working toward a bachelor's degree; or
- $40,000 aggregate for graduate or professional study (total includes any amount borrowed under Federal Perkins Loan or NDSL for undergraduate study).

Repayment of the loan begins nine months after students cease to be enrolled half-time. Students may be allowed up to 10 years to repay the loan. The amount of payment depends upon the size of the debt but usually is in payments of at least $30 or $40 per month for first time borrowers. The university may agree to a lesser amount because of extraordinary circumstances such as prolonged unemployment.

In case of default on a Federal Perkins Loan, which the university is unable to collect, the federal government may take action to recover the loan. Questions about the terms of the loan, repayment obligations, deferment or cancellation should be directed to the Office of Student Financial Services.

Federal Stafford Loans

The Federal Stafford Loan program is designed to enable students to secure long-term loans from private lending institutions, such as banks, savings and loan associations, and credit unions.

The loans have a variable interest rate, which will not exceed 8.25% for students in school and enrolled at least half-time.

Students who receive a need-based Federal Stafford Loan pay no interest on the loan while in school or in deferment. This type of Federal Stafford Loan is referred to as "**subsidized.**"

An "**unsubsidized**" Federal Stafford Loan is available to students who are not eligible for a need-based (subsidized) Federal Stafford Loan. With an unsubsidized Federal Stafford Loan, students are responsible for the interest during the in-school and deferment periods.

The Federal Stafford Loan Program is intended solely to aid students pursuing a degree in higher education. Students should borrow only the amount they believe is necessary to pay for educational costs. Keeping the amount of a loan at a minimum will ease repayment.

Student Loan Amounts

Federal Stafford Loans cannot exceed the student's unmet financial need, as determined by the Financial Aid Office and the grade-level loan limits per academic year which are determined by the federal government.

$2,625	Freshman
$3,500	Sophomore
$5,500	Junior, Senior and Degree Plus
$8,500	Graduate and Professional

Federal unsubsidized Stafford Loans cannot exceed the student's cost of attendance. Students must be independent to be eligible for these amounts, unless parents are denied the PLUS loan.

$4,000	Freshman
$4,000	Sophomore
$5,000	Junior, Senior and Degree Plus
$10,000	Graduate and Professional

Federal Stafford Loan Check Distribution

Electronic Funds Transfer is available to students whose loans are guaranteed through the Colorado Student Loan Program (CSLP). Funds are transferred to a university account. Funds received will be credited to the student's account and any remaining funds will be electronically transferred to the students designated checking account.

Out-of-state lending institutions send loan checks to the Office of Student Financial Services. The student's satisfactory progress, enrollment status, and eligibility are reviewed before the check will be released to the student.

Loan checks may be disbursed after the end of the loan period or when a semester is over, under certain conditions. The school is required to disburse loan funds within three (3) working days. If the students is ineligible for disbursement the funds must be returned to the lender immediately.

Federal PLUS - Parent Loan for Dependent Students

The Federal PLUS loan is a non-need-based parent loan for dependent students and has a variable interest rate not to exceed 9 percent. The rate is adjusted every July 1 by the U.S. Department of Education. Credit checks are conducted by the lender to determine loan approval. If the loan is denied the lender is responsible for notifying the parent (borrower).

Parents of dependent undergraduate students may borrow up to the cost of education minus financial aid per year for each child who is enrolled at least half-time and is a dependent student. The borrower (parent) must begin monthly payments of a Federal PLUS loan 60 days after the final loan check is disbursed.

Parents may request deferment of repayment under certain conditions established by the lender.

Student Success Loan

The Student Success Loan is intended only for those financial emergencies that present extreme hardship which could not reasonably be foreseen and which seriously threaten the continuation of the student's enrollment at the university.

Students must be enrolled for at least 6 semester credits, must be in good standing and must have a pending Financial Aid disbursement for that semester that will be used to pay the loan back.

Maximum loan amount is $350 per semester.

Loans are to be repaid within a short period of time (normally within 60 days). If the loan has not been repaid or arrangements made for its repayment by the due date, the delinquent loan will be treated as an overdue student account and handled in accordance with university policy. Applications for Student Success Loans are available in the Office of Student Financial Services. A $3 fee, assessed for processing the loan, will be deducted from the loan amount.

SCHOLARSHIPS

Institutional and private scholarships handled by the USC Student Financial Services office are applied for by completing the Institutional scholarship Application for either incoming freshmen or continuing, transfer and graduate students. The applications are available in October with a February 1 deadline.

Institutional Scholarship programs such as the Colorado Diversity, First Generation, Presidential Academic and Talent are part of the Institutional Scholarship Application.

The Office of Admission and Records awards a limited number of Institutional scholarships to incoming freshman and community or junior college transfer students based on GPA and ACT/SAT scores.

The USC Student Financial Services office administers a number of private scholarships funded and awarded by individuals, foundations, agencies and organizations. The donors specify the scholarship requirements and may select the recipients or rely on a USC scholarship committee composed of faulty and/or staff to select the recipients.

Impact on financial aid. Because scholarships are considered "resource" funds under state and federal guidelines, scholarship awards become a part of the student's financial aid package. Therefore, an award letter will be sent to the student from the Student Financial Services office indicating the scholarship. The student must complete the award letter and return it immediately to the Student Financial Services office. Scholarship dollars are first used to cover the need-based aid, student's "unmet need" and then to reduce any loan or work-study obligations. Gift aid (grants) will be reduced only if the total of all awards exceeds the amount of financial aid for which the student is eligible. In no case will the Pell grant be reduced as the result of a scholarship.

ASSISTANCE PROGRAMS

Student Employment Services

The Career Planning and Employment Center coordinates a variety of student employment opportunities to include the university's work-study program, on-campus student hourly, and off-campus part-time jobs. Additional information can be obtained in the Occhiato Center, Room 002, phone (719) 549-2589.

VETERANS

Veterans must follow the admission requirements and procedures outlined in this catalog. For certification of eligibility for education benefits under one of the Public Laws, students can apply for Veterans Administration benefits through the Office of Veterans Affairs in the Administration Building, Room 212, phone, (719) 549-2587 or (719) 549-2753.

Veteran's Benefits

Programs offered by the University of Southern Colorado, with certain exceptions, are approved by the Community College and Occupational Education System for the education and training of those veterans and dependents of veterans eligible under applicable laws. A veteran or dependent planning a course of training in a special program not described in the university catalog or identified as approved for veteran's benefits by the Colorado State Approving Agency should check with the certifying official before enrolling in such a program, if benefit assistance is desired.

Veterans and dependents who plan to apply for Veterans Administration benefits while attending the University of Southern Colorado should contact the Office of Veterans Affairs as soon as the decision to enroll is made. Two months is the normal processing time required for the Veterans Administration to establish an applicant's file. Further information may be obtained from the Office of Veterans Affairs, Administration Building, Room 212, phone (719) 549-2587 or (719) 549-2753.

Bureau of Indian Affairs

Students who are at least one-fourth American Indian, Eskimo or Aleut, as recognized by a tribal group served by the Bureau of Indian Affairs, may apply for a BIA grant. The amount awarded is based on financial need and availability of funds from the area agency. For additional information, write to: Scholarship Office, U.S. Department of the Interior, Bureau of Indian Affairs, P.O. Box 370, New Town, ND 58763.

Disability Resource Office

The USC Learning Center, Psychology Building, Room 232, provides information and appropriate services for students with disabilities.

WITHDRAWALS

Students who withdraw during the drop/add period will receive a 100% tuition on refund and be responsible for repaying all of their financial funds back to the university.

Students who withdraw after the drop/add period through 50% of the semester will have their tuition prorated (see course bulletin for details). A specific formula will be used to determine the amount of financial aid that has been earned by the student, which will be calculated for students who withdraw within 60% of the semester. If the student receives less assistance than the amount earned, the student may be able to receive those funds. If the student received more assistance than earned, the excess funds must be returned.

PROGRAMS, SERVICES, AND POLICIES

The Division of Student Life operates a number of offices, facilities, programs and organizations that exist primarily to enhance and support students' academic lives at the university.

HOUSING

Freshman Live-in Policy

All newly admitted, non-veteran students, enrolled in 12 or more credit hours, who have completed 29 credit hours or less, who are single, under 21 years of age, and who do not live with a parent or legal guardian, must live in the Belmont Residence Hall for (2) consecutive semesters.* All questions regarding this policy should be directed toward the Housing Office staff. They can be reached at 719-549-2602.

*Subject to approval by the State Board of Agriculture

Belmont Residence Hall

Belmont Residence Hall (BRH) houses nearly 500 students in three wings which are joined by a large commons area. The common area serves as a gathering area and a large-screen television viewing area. The housing office and student mailroom are located adjacent to the lounge. The lower level of the commons area consists of a recreation area (including a court for volleyball and basketball), study lounge/music room, and laundry facilities. BRH also has a computer lab, pool table, ping-pong table, video arcade, and an ice machine. Our front desk has extended hours and is staffed by students to answer questions and check out equipment.

All rooms are designed for two people, although single occupancy is available. Each room contains two extra long twin beds, with drawer space below, two desks with a study lamp built into the desk, two bookshelves, and two desk chairs.

A $125 deposit must accompany each application for space in BRH; $25 of the deposit is used as an application fee and is non-refundable; $100 of the fee is used as a security/damage deposit. The deposit is held in escrow for the duration of the student's occupancy.

University Village at Walking Stick

(In cooperation with The University of Southern Colorado)

University Village at Walking Stick is an on-campus apartment community for students at the University of Southern Colorado. University Village offers a unique on-campus housing opportunity for sophomores, juniors, seniors and students exempt form the BRH live-in requirement.

These newly constructed and spacious two-story town homes are energy efficient, feature apartment controlled heating and air-conditioning, and are 10-Base T Ethernet ready. Each student at University Village has an individual housing contract to fit his or her academic housing needs. Full calendar year occupancy is always available and by design University Village students are not required to purchase a meal plan.

University Village is located west of BRH and the Art/Music Building and across from the Walking Stick Golf Course. Students at University Village experience a more private living environment while in the heart of USC campus life. Classes and campus facilities, just minutes away, are easily accessible and convenient for a busy student's life.

The two-story apartment floor plan features two private locking bedrooms and a semi-private locking vanity and bathroom on each floor. While the main level of the apartment also features a living room, dining area and fully equipped kitchen, complete with dishwasher, range and refrigerator; while the second story offers a quiet, spacious study loft with free, convenient 10-Base T Ethernet access to the Web.

Study in the privacy of your own home or lounge on your patio, grill your dinner and enjoy the magnificent mountain views available at University Village. University Village also features a spacious and inviting clubhouse and office, on-site professional management, a 24-hour laundry facility, an outdoor basketball court and on-site parking.

University Village at Walking Stick is Pueblo's only student-centered apartment community, built and designed with the student in mind. Discover why we think University Village at Walking Stick is "The students' choice for on-campus apartment living". Make it your choice! Join us at University Village at Walking Stick!

Call of stop by the office for academic year and summer housing contract information or to schedule a tour of one of our apartment homes. You may also visit our website or email us for more information.

University Village at Walking Stick
4000 Walking Stick Boulevard
Pueblo, Co 81001
Phone: (719) 549-2860
Fax: (719) 549-2861
Email: walkstik@uscolo.edu
Website: www.uscolo.edu/walkstik

Off-campus Housing

The Occhiato Center Office maintains a file of off-campus, privately owned rooming houses and apartments. Since listings change rapidly, prepared housing lists are not furnished.

Housing for Married Students

Presently, no housing is available on campus for married students. Married students should contact the Occhiato Center Office (Room 113) for referral to housing in the community.

Contract Board Policies

Belmont Residence Hall students are required to contract for meals at the university. Meal plans are purchased each semester and allow the student full dining privileges for that term. Meal passes are not transferable. Special diets prescribed by a physician are given consideration.

FOOD SERVICE

Campus food services are located in the Occhiato Center. The cafeteria is on the main floor. Serving hours are:

Monday through Friday

Breakfast	7:15 a.m. - 8:30 a.m.
Continental breakfast	8:30 a.m. - 9:30 a.m.
(Breakfast is served in the LaCantina)	
Lunch	11:15 a.m. - 1:30 p.m.
Dinner (except Friday)	5:00 p.m. - 6:30 p.m.
Friday dinner	5:00 p.m. - 5:45 p.m.

Saturday and Sunday

Continental breakfast	10:30 a.m.-11:30 a.m.
Brunch	11:30 a.m. - 1:00 p.m.
Dinner (Sat.)	5:00 p.m. - 5:45 p.m.
Dinner (Sun.)	5:00 p.m. - 6:00 p.m.

The LaCantina and World Famous Chili Bowl is located on the lower level of the Occhiato University Center and is open during Fall & Spring semesters while classes are in session.

A small restaurant, the Aspen Leaf, is on the top floor of the center. Serving hours are from 11:15 a.m. to 1:30 p.m. weekdays when classes are in session.

Students may go to the Auxiliary Services Office, Occhiato University Center, Room 101 to purchase "Fiesta Cash". Fiesta cash may be used in all food service areas located in the Occhiato University Center.

STUDENT LIFE PROGRAMS AND SERVICES

Counseling

The mission of the Counseling Center at the University of Southern Colorado is to provide practical, creative services designed to enhance the emotional well-being of members of the university community, in a way that is consistent with the academic, social, and career goals that are intrinsic to the purpose of the university. The Counseling Center exists as one of many cooperative assets within the university community that promote student wellness and success. With a focus that is preventative as well as curative, it is the intent of the Counseling Center to provide (to properly enrolled students) opportunities that respond to personal, as well as systemic needs for well-being, growth, and development.

The dignity, privacy and worth of all client systems will be honored. Diversity of all sorts will be respected including but not limited to the following: lifestyles, origins, racial and ethnic background, religion, gender, sexual orientation, disability, and age. In all instances, the needs and best interests of the client system will supersede any competing interests.

The services are free to USC students and the information shared is confidential.

Experiential Learning Center

The Experiential Learning Center encompasses Outdoor Programs, USC Challenge Rope Course, Wilderness Education Association Certification, Climbing Wall and Intramural Sports. The Center is located in room 004 of the Occhiato Center. Inquiries and questions can be made to: 719-549-2085. Everyone is encouraged and welcome on all of the activities offered by ELC

Outdoor Programs

The office of Outdoor Programs (ODP) offers trips designed to provide maximum access to outdoor activities at a reasonable cost. Four programs serve as the foundation of the ODP: Mountain Orientation which takes place in the Colorado Rockies right before school starts in the fall; Winter Orientation in January which is a backcountry ski trip into the huts of the Tenth Mountain trail; Desert Orientation during spring break in which students spend a week in the Sonoma Desert and Mexico; and finally in May there is a Canyon

Orientation where students travel to the canyon country of Utah. ODP also offers one-day and weekend mountaineering trips, climbs, bike rides, and of course ski ventures to many of Colorado's finest resorts.

The Outdoor program activities are open to student, faculty, staff, alumni and guests of the university. ODP trips are a great way for participants to develop new friendships, learn lifelong wilderness skills, develop leadership skills, increase interpersonal skills, and expand appreciation and concern for the environment. From the first-timer to the expert, ODP has something for everyone.

USC Challenge Rope Course

USC Challenge Rope Course consists of s series of 33 elements. The course offers a safe yet challenging environment designed to promote cooperation and group problem solving skills, and develop individual self-confidence.

Varying in degrees of difficulty, course elements range form the trust building low course to the challenging high courses. Physical prowess is not necessary for participation. Teamwork however is essential.

Located next to the Rawlings Sport Complex, the course is open to all students, faculty, staff, alumni and the general public. While the standard time frames are four and eight hour sessions, the program director will design customized sessions for your own individual group needs. **Beware, challenge course participants frequently report an increase of sense of joy, self-confidence and well being.**

Wilderness Education Association Leadership Program

USC is one of twenty institutions that offer the Wilderness Education Association (WEA) Leadership Certificate. Individuals seeking certification are trained in effective judgment, decision-making, leadership, communication and teaching skills. In addition the WEA curriculum incorporates principles of wilderness ethic, land stewardship, effective group dynamics and technical travel skills sufficient to move a group through the wilderness safely with minimum environmental impact.

Students who become WEA Certified often lead trips offered by the Outdoor Programs. The WEA program is open to all students.

Climbing Wall

USC has a 28 by 32 foot climbing wall that is located in the Northeast corner of the Massari Arena. Routes are designed for the beginner to advance climber. Climbing shoes, harnesses, and any other equipment needed for a safe and fun day on the wall are available. Instructors are provided to teach participants how to belay, climb and use correct knots.

Intramural Sports and Recreation

Intramural's involves students and staff in organized recreation and sports activities. Coeducational and men's and women's activities are offered in a variety of sports. They are: Co-ed volleyball, co-ed bowling, co-ed badminton, men's and women's soccer, men's and women's basketball, men's flag football, men's lacrosse, and individual competitions in table tennis, billiards and racquetball. All students are encouraged to participate, either as individuals or with teams.

T.L.C. (Tackling Life's Choices)/Drug Prevention and Awareness Program

The Tackling Life's Choices program is a dynamic and proactive approach to changing the perception of the USC community and of the college culture by the promotion of healthy lifestyle choices. Its mission statement is to create an environment on campus that promotes healthy lifestyle choices for health and spiritual wellness and the prevention of alcohol and drug abuse.

Leadership Education and Development (LEAD Program)

The LEAD Program is a planned, structured approach to building and enhancing leadership and inter-personal skills. The purpose of the LEAD Program is to enroll and retain students with proven leadership ability. The program also provides students with opportunities to volunteer in the community, develop leadership abilities and contribute to academic and student life at the university.

Women and Non-Traditional Students Services (WANTS)

Many adults and re-entry students use the services of the WANTS Programs Center, which provides university and community resources information. Special programs and peer counseling are available, and staff members are particularly sensitive to the needs and concerns of non-traditional students.

Student Health Services

"The mission of the University of Southern Colorado Student Health Services is to help each student achieve maximum physical health so that each may participate fully in the educational and personal growth opportunities afforded by the University. Student Health Services is committed to providing the highest quality primary health care, health education/promotion, through trust-based, caring, accessible and affordable services. All activities and programs of the Student Health Services operate to assure a nonjudgmental environment and sensitivity to individuals with disabilities and those representing diverse cultural, racial, religious, gender or sexual orientation groups."

Students are encouraged to visit the health clinic whenever necessary. Patients are seen by appointment. Walk-ins will be seen at the first available time. Student Health Services is in the back courtyard of the Occhiato University Center, to the left of the cafeteria exit.

Student Activities Board

The Student Activities Board (SAB) is located in the lower level of the Occhiato University Center, Room 002. The mission of the Student Activities Board is to enhance the educational experience of students by creating an atmosphere which promotes educational stimulation, cross-cultural awareness, interpersonal skills building, leadership development, entertainment, and fun.

Throughout the academic year, the Student Activities Board promotes events that motivate, challenge, and encourage divergent thinking through lecturers, poetry, symposiums, open mic nights, and special theme weeks. The Student Activities Board also provides events that promote social opportunities such as the Town & Gown Series, and Casino Night. The Student Activities Board celebrates the rich culture and diversity of the University of Southern Colorado campus community, through international celebrations like Black History Month, Hispanic Heritage Month, Native American Month, and Asian American Month to name a few. Finally, Student Activities Board provides programs that entertain such as virtual reality experiences, comedians, hypnotists, illusionist, jugglers, novelty items, and movies.

Co-Curricular Transcript Service

Co-Curricular transcripts are official USC transcripts of all the activities a student is involved in other than classes. Its purpose is to help students in the process of searching for jobs as an official part of the application. The transcript provides potential employers with information relating to various skills, leadership opportunities, and experiences of the applicant. Students interested in the service should contact the Student Activities Office, Occhiato University Center, Room 036.

Associated Students' Government (ASG)

All registered USC students who have paid fees are members of the Associated Students' Government (ASG). ASG is the students' governing body and promotes student life and the general welfare of the student body. It also addresses student concerns and/or complaints regarding any campus issue. ASG also works to make students aware of administrative decisions on campus by having Senators as representatives on most of the boards and committees on campus.

ASG functions through three branches of government: legislative, executive and judicial. The legislative branch, the ASG Senate, is composed of 15 senators elected from the student body. It is presided over by the speaker of the Senate. The executive branch consists of the president and the vice president. The judicial branch is composed of five justices, one of whom is designated the chief justice. The senate meets weekly.

Clubs

USC students have opportunities to take part in the activities of a number of clubs, organizations, and honor societies. Membership often is based on special qualifications. Students interested in starting a new official campus group must first find a faculty or staff member willing to sponsor the group. Students then must obtain a charter packet from the Associated Students Government (AS) office and complete and return the forms to AS. Five copies of a proposed constitution should be submitted to the chairperson of the Club Organization and Facilitating Committee (COFC).

Following is a list of the Campus Clubs:

Every effort has been made to list all chartered student clubs at the time this catalog went to press. For further information or an updated list of student clubs or organizations, contact the Associated Students' Government Office, Occhiato Center, Room 201, or call (719) 549-2866.

Alpha Lambda Delta
Alpha Sigma Alpha (Sorority)
American Society of Mechanical Engineers (ASME)
Association of Information and Technology Professionals (A.I.T.P.)
Association of Peer Educators (APES)
Association of Worksite Health Promotion (AWHP)
Automotive Booster Club
Black Student Organization (BSO)
Catholic Students' Union (CSU)
Chemistry Club
Christian Challenge
College Republicans
Colorado international Student Association
CoPirg
English Club
Fellowship of Christian Athletes (FCA)
Gamer's Guild
Hawaii Club
Hungry Eye Literary Club
Institute of Electrical and Electronics Engineers
Institute of Industrial Engineers
International Facility Management Association (IFMA)
International Soccer Club
InterVarsity Christian Fellowship (IVCF)
Kappa Sigma (Fraternity)
La Association De Espanol
La Sociedad de Las Hermanas y Los Hermanos
LaCrosse Club
Lambda Chi Alpha Fraternity
Mamas and Papas of Daycare
Marketing Club
Masters of Business Association (MBA)
Medical Science Society
Mexican American Engineers and Scientists (MAES)
Movimiento Estudiantil Chicano de Aztlan (MECHA)
National Assoc. for the Advancement of Colored People (NAACP)
Native Collegiate Council
Nu-Delta (Fraternity
One-in-Ten
Past Masters History Club
Phi Alpha Pre-law Fraternity
Physical Educators Club
Pre-Law Club
Professional Recreation Association
Psychology Club/Psi Chi*
Racquetball Club
Residence Hall Association (RHA)
Sailing Club
Sigma Tau Delta, Lambda Chapter
Society of Human Resource Management
Society of Mexican Engineers and Scientists
Society of Physics Students (SPS)
Society of Women Engineers
Student Athletic Trainers Club
Student Social Work Association (SSWA)
Tau Alpha Pi
Teacher Education Association
Team USC
Thunderwolves Dance Squad
Tri Beta Biology Club
University Village @ Walking Stick Executive Board (UVWS)
USC Ambassadors
USC Art Club
USC Chess Club
USC Country Club
USC Rodeo Club
USC Running Club
USC Sign Language Club
USC Students in Free Enterprise
USC Table Tennis
Young Life-Pueblo

ATHLETICS

USC views participation in intercollegiate athletics as a beneficial experience and a worthwhile part of the entire educational process. Sports contribute significantly to student life at USC. The sports offered take place either in the spring or fall. Fall sports include: men's and women's soccer, women's volleyball, golf, wrestling, and men's and women's basketball. Those sports played in the spring include: women's softball, men's baseball, golf, and tennis. All students are invited to participate.

The university is a member of the National Collegiate Athletic Association Division II and the Rocky Mountain Athletic Conference. USC sponsors the following intercollegiate sports:

Men:	basketball, baseball, soccer, wrestling, golf, and tennis
Women:	volleyball, basketball, soccer, softball, and tennis

MASSARI ARENA AND SAM JONES SPORTS CENTER

This facility is located directly east of the Occhiato University Center. It includes a large indoor swimming pool, four racquetball courts, a weight room (including free weights, stationary bicycles, stair climbers, etc.), and the gymnasium. Racquetball equipment may be checked out at the Massari Arena Office.

RAWLINGS OUTDOOR SPORTS COMPLEX

The Rawlings Outdoor Sports Complex consists of tennis courts, baseball and softball fields and a soccer field. These areas are used by sports teams for training and for use by student and public groups.

STUDENT CONDUCT

The dean of student life and development, or his/her designee, is responsible for promoting observance of student code of conduct, enforcing the standards, and administering sanctions for violations of the code. If it is determined that a student has violated a university regulation, a sanction may be imposed. Sanctions range from warning to expulsion from the university. Decisions made by the dean of student life and development, or his/her designee, may be appealed to the Campus Appeals Board, the highest hearing and appeal board for non-academic matters at the university.

Students participating in the university's intercollegiate athletic programs are also subject to the Athletic Department's code of Conduct.

Details of the hearing processes, including the provost's authority to intervene, are contained in the *Student Code of Conduct Handbook* which contains a detailed explanation and description of institutional disciplinary philosophy, rules and regulations. Decisions involving academic infractions, appeals, etc., must follow the procedures established by the academic division of the university.

STANDARDS OF CONDUCT

Members of the University of Southern Colorado community are expected to observe the laws of the City of Pueblo, the State of Colorado, and the Federal Government, and to respect the rights and privileges of other members of the community. USC students, non-students, faculty, and staff, upon entrance to the university, neither gain nor lose any of their rights or responsibilities of citizenship. As a community, USC has the obligation to establish those regulations that best serve and protect its integrity as an institution of higher learning. Activities which will render students or non-students subject to disciplinary action are as follows:

1) violation of federal, state and city laws and ordinances or any other conduct that adversely affects the functions of the university in the pursuit of its educational mission or objectives;

2) attempted or actual theft and/or damage to property of the university or of a member or guest of the university community;

3) unauthorized entry into or use of university or university-controlled facilities or property;

4) failure to comply with directions of university officials acting in the performance of their duties;

5) unauthorized possession, duplication or use of keys to any university premises or unauthorized entry to or use of university premises;

6) violation of the university's and/or residence hall's regulations and rules related to the use, possession or consumption of alcoholic beverages;

7) use, sale, distribution or possession of drugs, controlled substances, barbiturates, etc., not authorized by a physician or expressly permitted by law;

8) violation of published university, campus or residence hall policies, rules or regulations;

9) hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization;

10) disorderly conduct or loud, indecent or obscene conduct on university or university-controlled property or at university-sponsored functions;

11) physical or verbal abuse, threats, harassment, coercion or intimidation of anyone on university-controlled premises or at university-sponsored functions or any conduct that endangers or threatens to endanger the health, safety, or well-being of any person;

12) dishonesty, such as cheating, plagiarism, misrepresenting oneself or facts or knowingly furnishing false information to any person or agency within the university community;

13) any form of academic dishonesty, including the acquisition of tests or other academic material belonging to a member of the university community without proper authorization, whether for personal gain or for the benefit of someone else;

14) forgery, alterations or misuse of any university documents, records, of instruments of identification with intent to defraud or mislead;

15) tampering with the election of any university-recognized student organization;

16) violation of university traffic or parking regulations;

17) intentional obstruction or disruptions or inciting others to obstruct or disrupt teaching, meetings, research, administration, disciplinary proceedings or other authorized university activities;

18) obstruction of the free flow of pedestrian or vehicular traffic on university premises or at university-sponsored or supervised functions;

19) possessing or using illegal or unauthorized firearms, explosives, dangerous chemicals, or other weapons on university-owned or controlled property;

20) public intoxication, use, possession, distribution or consumption of alcoholic beverages on university property; except in those areas authorized by the university and then only those types of beverages authorized by the university;

21) failing to show proper identification to university police officers or other university staff (acting in an official capacity) when requested to do so; furnishing false information to any university official, faculty member or office;

22) abuse of the judicial system, including but not limited to:

a) failure to obey a summons of a judicial body or university official;

b) falsification, distortion, or misrepresentation of information before a judicial body;

c) disruption or interference with the orderly conduct of a judicial proceeding;

d) institution of a judicial proceeding knowingly without cause;

e) attempting to discourage an individual's proper participation in, or use of, the judicial system;

f) attempting to influence the impartiality of a member of a judicial body prior and/or during the course of, the judicial proceeding;

g) harassment (verbal or physical) and/or intimidation of a member of a judicial body prior to, during, and/or after a judicial proceeding;

h) failure to comply with the sanction(s) imposed under the Standards of Conduct;

i) influencing or attempting to influence another person to commit an abuse of the judicial system;

23) failure to meet financial obligations to the university;

24) tampering with fire equipment in any manner;

25) any fraudulent misuse of university computer hardware or software;

26) any violation of the Safety requirements for food sales by student groups;

27) any action which would violate the USC policy on demonstrations and mass gatherings;

28) stalking -- to follow or harass repeatedly another person so as to put that person in fear for their safety; and

29) attempt, conspiracy, or solicitation to commit any violation of items 1 - 28 as cited above.

GROUP OFFENSES

1) Societies, clubs, or similar organized groups in, or recognized by the university are subject to the same USC Standards of Conduct as those for individuals in the community.

2) The knowing failure of any organized group to exercise preventive measures relative to violations of the USC Standards of Conduct by member will constitute a group offense.

VIOLATIONS OF LAW ON CAMPUS

To protect its educational mission, the university takes a firm stand concerning violations of law on campus. The University Police are charged with the responsibility of maintaining law and order at the University of Southern Colorado and for enforcing all laws, local ordinances and regulations of the university, except when such enforcement is, by such law, made the responsibility of another department, official or agency.

Deliberate illegal activity which comes to the attention of USC officials is not tolerated. No one should assume that USC is a sanctuary for persons breaking the law. At USC, each individual is responsible for his or her behavior.

An offense requiring police action may also be treated internally as a university disciplinary matter. A full document detailing police policies and statistics is available from the police upon request.

Students are well advised to become familiar with the academic policies of the university. Each student owns the responsibility to comply with those policies.

UNIVERSITY STUDENT RECORDS POLICY

The University of Southern Colorado's practice in regard to student record keeping and access is based on the provisions of the Privacy Rights of Parents and Students, Section 438 of the General Education Provisions Act, as amended (P.L. 93-380), also known as the Family Educational Rights and Privacy Act of 1975 (FERPA), or the Buckley Amendment. For specific details, contact the Registrar, Administration Building, Room 201.

ACADEMIC CONDUCT

Any use of unauthorized assistance in preparing materials which students submit as original work is considered cheating and constitutes grounds for dismissal. Instructors use practical means of preventing and detecting cheating, but the responsibility for maintaining academic integrity and avoiding dishonest scholarship rests with the student. Any student judged to have engaged in cheating may receive a reduced grade for the work in question, a failing grade in the course, or any other lesser penalty which the instructor finds appropriate. Academic dishonesty violates the Student Code of Conduct (see *Student Life* section of this catalog) and subjects students to the university disciplinary procedure.

CLASSROOM BEHAVIOR

The classroom instructor is responsible for setting standards for all classroom conduct, behavior and discipline. Only enrolled students, administrative personnel and persons authorized by the instructor are permitted in classrooms and other instructional areas during scheduled periods. University policy and Colorado state law also prohibit all forms of disruptive or obstructive behavior in academic areas during scheduled periods or any action which would disrupt scheduled academic activity. Use of classrooms and other areas of academic buildings during non-scheduled periods is permitted only in accordance with university practices. Anyone in unauthorized attendance or causing a disturbance during scheduled academic activity may be asked to leave. If a person refuses such a request, he or she may be removed by the University Police and is liable to legal prosecution.

CATALOG REQUIREMENTS

Students may graduate under the catalog requirements for the year in which they are first enrolled, provided they complete graduation requirements within a continuous period of no more than 10 years. If a student withdraws or is withdrawn for any reason from the university and is subsequently readmitted after an absence of two or more semesters, re-admittance will be governed by the catalog current at the time of readmission. Any exceptions to the policy must have prior approval from the associate provost. Students should obtain and keep a copy of the catalog under which they enter or are readmitted. Students may also elect to follow any subsequent catalog.

TIME LIMITATION ON CREDIT

Any college credit earned more than 10 years before the date of admission or readmission is not applicable toward the degree desired unless it is approved by the chair of the department offering the course(s) [or equivalent(s)]. General education credit earned more than 10 years before the date of admission or readmission must be approved by the Director of Admissions and Records.

CLASSIFICATION OF STUDENTS

Classification of students is based on semester credit hours earned as follows:

Freshman	0 - 29	semester hours earned
Sophomore	30 - 59	semester hours earned
Junior	60 - 89	semester hours earned
Senior	90 +	semester hours earned

Graduate Student See the *Graduate Studies* section for classification information.

Unclassified

An unclassified student is defined as one who has made no commitment to earning a degree. An unclassified student may be classified as degree-seeking when and if admission status is determined. Students under suspension, or those denied regular admission, are not eligible to enroll as non- degree students. Additional information on unclassified students is contained in the *Admission* section of this catalog.

Degree Plus

A non-degree-seeking student who has completed a baccalaureate degree.

Auditor

A student who has been permitted to enroll in a course for which he or she will receive no credit. Auditors determine their own attendance, take no examinations, receive no grades, do not participate in classroom discussion except as permitted by the instructor and earn no credit. They pay the same tuition and fees as persons enrolled for credit. An auditor may not be reclassified to receive credit in the course after the final date for adding courses. In place of a grade, students receive the symbol NC (no credit) on their transcripts. Students wishing to register as auditors must declare their intention at registration and may not seek credit in the course after the drop period for the course has expired. Likewise, a student may not change his or her regular enrollment to auditor (no credit) status after the end of the drop period. Auditor (or no credit) forms are available in the Office of Admissions and Records.

Persons 65 years of age or older, or 62 and retired, may audit courses without paying tuition on a space-available basis. Permission of the instructor is required in all cases.

FULL-TIME / HALF-TIME ENROLLMENT STATUS

Enrollment status (full-time, half-time) is determined by the number of credit hours which the student has completed or is pursuing for the term in which the certification is requested. (The following schedule for enrollment status may differ from the full-time/part-time schedule as recognized by the financial services area.) Credit hour requirements for enrollment verification (i.e., health insurance, auto insurance, loan deferments) are as follows:

Fall/Spring Semesters

Undergraduates

Full-time	12 or more credits
Half-time	6-11 credits
Less than half-time	Below 6 credits

Graduates

Full-time	9 or more credits
Half-time	6-8 credits
Less than half-time	Below 6 credits

Summer Session

Undergraduates

Full-time	6 or more credits
Half-time	3-5 credits
Less than half-time	Below 3 credits

Graduates

Full-time	6 or more credits
Half-time	3-5 credits
Less than half-time	Below 3 credits

Contact the Office of the Admissions and Records for certification of enrollment status, level (class), grade point average and term(s) of attendance.

GRADES AND THE GRADING SYSTEM

Awarding of Grades

Grades are earned by students and awarded by faculty. Grade changes can only be made by the instructor with the approval of the department chairperson and the dean of the school.

The Grading System

The quality of a student's work is appraised according to letter grades and grade point averages. The University of Southern Colorado grading system includes the following grades: A, B, C, D, F, S, U, IN, W, WN, NC, IP.

A Excellent achievement, credit given, 4 grade points per semester credit hour.

B Above average achievement, credit given, 3 grade points per semester credit hour.

C Average achievement, credit given, 2 grade points per semester credit hour.

D Below average achievement, credit given, 1 grade point per semester hour. (Although a D is passing, it does not constitute a satisfactory grade. Many departments do not permit D grades to count toward fulfillment of their requirements, even though the hours can be counted toward graduation requirements. D grades from other institutions are not accepted in transfer except as specified under Transfer of Credit admission section.)

F Failing work, zero credit given, 0 grade points per semester credit hour. Counted as a course attempted; does not constitute a passing grade nor does it satisfy major or institutional requirements.

S Satisfactory (equivalent to A, B, C, D achievement), credit given, 0 grade points per semester credit hour. This grade is not used in the computation of grade point average. Available only in certain approved courses.

U Unsatisfactory, zero credit given, 0 grade points per semester credit hour. This grade is not used in the computation of grade point average. Available only in certain approved courses.

W Withdrawal, zero credit, 0 grade points per semester credit hour. This grade is not computed in the grade point average. This grade is given under two conditions: 1) when a student withdraws from a course prior to the end of the regular withdrawal period; 2) when a student withdraws totally from the university after the end of the regular withdrawal period.

WN Administrative withdrawal/withdrawal for nonpayment. Zero credit, 0 grade points per semester credit hour. This grade is not computed in the grade point average.

IN Incomplete, zero credit given, 0 grade points per semester credit hour. Temporarily reported as a grade when a student is granted an extension of time to complete course work because course work could not be completed for reasons beyond the student's control. An incomplete course must be satisfactorily completed within one calendar year from the date the IN was given. An incomplete not removed within one calendar year shall revert to the pre-assigned alternate grade (normally an "F") and be included in the computation of the student's grade point average. Re-enrollment is not recommended.

IP In Progress, zero credit given, 0 grade points per semester hour. A grade of IP may be given at the close of the term in certain approved courses. Students receiving an IP must register in the same course the next term, pay tuition and must complete the work during that term. Courses for which IP grades are accrued are identified in the *Course Description* section of this catalog.

NC No credit, zero credit given, 0 grade points per semester credit hour. This grade is assigned for students choosing to audit a course rather than taking it for credit.

Grade-point Average Computation

Earned grade points are computed by multiplying the point value of A, B, C, D and F grades earned by the number of credit hours of the course(s) in which the student was enrolled. A student's semester GPA is calculated by dividing total grade points by total credit hours attempted. A student's cumulative GPA is calculated by dividing all grade points earned by all credit hours attempted. Earned grades of S, U, W, WN, IP, IN and NC are not computed in the grade-point average. **For purposes of computing a student's grade-point average, only USC hours are used.**

Grade Changes/Academic Appeals

Students have the right to appeal any academic decision, including the assignment of grades. Final grades entered in the Office of Admissions and Records are unalterable unless a grade-change form is completed and signed by the instructor, the department chair, and the dean. A grade-change request should be extremely rare, resulting from an instructor's error in calculating the original grade or a similar occurrence. It is not appropriate to change a grade because the student submitted additional work. Letter grades of A, B, C, D or F may be changed by instructors to letter grades of A, B, C, D or F before the end of the following term (summer excluded) only with the approval of the college dean. Academic appeals should be made first to the classroom instructor, next to the department chair, then to the dean of the college involved. If a satisfactory resolution cannot be reached, a final appeal may be made to the provost. Grades of S, U, W and NC may not be changed. Students are responsible for initiating requests for grade changes.

DEANS' LIST

All undergraduate students, including those enrolled in continuing education classes and those enrolled in a second baccalaureate degree program, are eligible for the Deans' List in a given semester provided they:

- achieve a minimum semester grade-point average of 3.500
- be degree-seeking
- earn at least 12 credit hours at the University of Southern Colorado, and
- receive no grade of "incomplete"

The Deans' List is generated and published Fall and Spring semesters.

GOOD ACADEMIC STANDING

The academic standing of all students is reviewed two times each year, at the end of Fall, and Spring semester. Students must have a **cumulative grade point average of 2.000** or higher to remain in Good Academic Standing.

ACADEMIC PROBATION

Students are placed on academic probation at the end of any semester (excluding summer) in which the cumulative grade-point average falls below 2.000.

Academic Probation status is noted on the Grade Report. In addition, students receive a letter (Notification of Academic Probation Status) from the Provost. At this point, **students are strongly encouraged to develop an Academic Improvement Plan (AIP)** in collaboration with staff from the USC Learning Center.

Please note: If the cumulative grade point average of any student on academic probation does not improve the next semester, that student may be subject to Academic Suspension.

ACADEMIC SUSPENSION

Students on academic probation are subject to academic suspension if, at the end of the spring semester, the cumulative grade-point average falls below the minimum levels indicated below:

Hours attempted	Cumulative grade-point average
1-12	1.500
13-24	1.600
25-36	1.700
37-48	1.800
49-59	1.900
60-72	2.000
73-84	2.000
85-96	2.000
97-107	2.000
108-120	2.000

For purposes of measuring hours attempted, the number of hours used shall be the total of transfer credit hours accepted by USC and the number of hours attempted at USC, excluding W's. For purposes of computing grade-point averages, only USC hours are used. (Transfer students must be in good standing at the institution last attended and have at least a 2.000 cumulative grade point average. If not, the records will be reviewed and a recommendation on admission will be made by the admissions committee.)

Students placed on Academic Suspension cannot re-enroll at the University for a period of two consecutive semesters (excluding summer) **EXCEPT BY SPECIAL PERMISSION.**

Students placed on Academic Suspension who successfully appeal their suspension can return to the university on a Conditional Re-instatement.

Students on Conditional Re-instatement status will remain under the guidelines of the catalog in effect at the time of their regular admission.

Students on Academic Suspension who re-enroll at the University within two consecutive semesters (excluding summer) also will remain under the requirements of the catalog in effect at the time of their regular admission.

Students on Academic Suspension who stay away from the University more than two consecutive semesters (excluding summer) following their notice of formal academic suspension must (a) be readmitted to the University, and (b) adhere to the requirements of the catalog in effect at the time they are readmitted to the University.

Appeal Process for Academic Suspension

Students who want to appeal their Academic Suspension are responsible for initiating the process by submitting an Appeal Letter. The Appeal Letter must address two issues: (1) why the Academic Suspension is being appealed, and (2) what the student will do to make an improvement in academic performance.

Appeal Letters requesting Conditional Reinstatement for the subsequent fall semester must be post-marked no later than 5:00 PM on June 15. **Failure to submit Appeal Letters within this prescribed time line results in academic suspension for two consecutive semesters** (excluding summer).

CLASS HOURS AND CREDIT HOURS

A class hour consists of 50 minutes. One class hour per week of lecture or discussion for a semester earns a maximum of one credit hour. Two or three class hours a week of laboratory activities for a semester earn a maximum of one credit hour. The number of credits awarded for a given course is determined by the number of lecture or laboratory hours spent each week in class and is authorized in accordance with guidelines of the Colorado Commission on Higher Education.

POLICY ON AWARD OF CREDIT

Instructional activity is broadly categorized into three categories: Type A, Type B and Type C by the Colorado Commission on Higher Education (CCHE) as published in its Policy for Reporting Full-time Equivalent Students.

I. Type A Instruction

Type A instruction is defined as consisting of "...those methods in which the consumption of faculty resources is reasonably concrete and measurable." In these instances, the criteria are established in terms of a faculty Base Contact Hour. The Base Contact Hour is a minimum of 750 minutes (this translates into a 50 minute period for 15 times). Type A instructional activities are audit; private instruction; lecture; recitation, discussion, and seminar; laboratory (vocational and technical; academic and clinical); physical education and recreation activity courses; studio (art and music) and field instruction.

II. Type B Instruction

Type B instruction is defined as consisting of "...those methods where the measurement of faculty resource consumption by students is less definitive and will vary depending on the activity. The activities occurring in these areas are, therefore, defined in a "contractual relationship" between faculty and students." Examples of Type B instruction are independent study/special or independent project; Master's thesis research project and practicum, student teaching, internship, and cooperative education.

III. Alternative Delivery Methods

These are courses delivered in non-traditional formats, including but not limited to, telecourses, self-paced instruction assisted by educational technologies, interactive video, telephone lines, computer based or computer assisted instruction, correspondence, videotapes or CD-Rom, Internet or Intranet, multimedia, etc... The credit hours for courses utilizing these alternative delivery methods shall be assigned based upon the equivalency or similarity of the course content's scope and depth and the course's evaluation methods to the same or similar courses currently offered at USC. Lecture courses delivered on-campus and also delivered via interactive video to approved off-campus sites are subject to Type A contact hour requirements for the lecture course and shall be counted as Type A instruction.

IV. Type C Instruction

These are activities that may generate credit, but the credit **cannot** be reported for FTE reimbursement. The activities involve relatively little faculty resource consumption or are considered as a student service. Included in Type C instruction is credit by exam and credit for prior learning of life experience.

COURSE LOADS

Programs of study in excess of 18 semester credit hours are defined as overloads. Both resident and extended studies (continuing education) courses are counted in the credit-hour total.

Freshmen who have earned fewer than 15 semester credit hours may not take an overload. Students with 15 or more semester hours may enroll for an overload according to the limits set below.

GPA	Credit-hour overload permitted
less than 2.500	0
2.500 - 3.400	3
3.410 - 3.800	6
3.810 - 4.000	7

Exceptions to these limits must be approved by the student's faculty adviser and department chair. Both signatures are required. Appeals may be made to the dean of the college of the student's major. **Under no circumstances may a student enroll for more than a total of 25 semester credit hours in a single semester.**

CREDIT BY EXAMINATION

A student may earn a maximum of 30 hours of credit by examination towards the minimum semester hours required for graduation regardless of the source type, (i.e., CLEP/DANTES, International Baccalaureate, advanced placement, and/or in-house departmental exams). Types and methods of earning credit by examination are as follows:

I. Advanced Placement

The University of Southern Colorado participates in the Advanced Placement Program of the College Entrance Examination Board. Under the program, outstanding secondary school students may take certain college-level courses in their own high schools. Students who have taken the Advanced Placement Examination and who have received scores of 3, 4, or 5 will be granted university credit as well as advanced placement.

USC credit is awarded and posted on the transcript without a grade, is counted toward graduation, and may be used to fulfill specific requirements. For more information, please contact the Office of Admissions and Records.

II. College Level Examination Program

Credit earned by the student on these exams will be accepted by USC and posted on the transcript provided the student submits an official CLEP/DANTES score report and has scored at or above established benchmarks. If CLEP/DANTES credit is recorded on the student's transcript from another institution, it will be accepted in transfer provided the credit is not duplicated from another source. If a student has already earned college credit in an area before taking CLEP/DANTES exams, the latter credit will be considered duplicate and will not be accepted. Please contact the Office of Admissions and Records for additional information.

III. International Baccalaureate Diploma Program

The University of Southern Colorado recognizes and encourages high school students to participate in the International Baccalaureate Diploma Program. The University recognizes the IB program as a rigorous pre-university course of study for highly motivated secondary students. Students who successfully complete the IB program and examination(s) are eligible to receive credit and advanced placement standing at USC.

To receive university credit, a student must take the IB exam(s) and request that the scores be sent to USC Office of Admissions and Records. Upon receipt of the scores, an evaluation for credit will be performed by the appropriate academic department. The student will be notified by mail of the evaluation results in approximately two to four weeks.

A score of 4 or better on the IB exam(s) will receive between 3 -10 credits for most examinations. The credit will be posted on the student's permanent record/transcript. Please contact the Office of Admissions and Records for additional information.

IV. Credit by Examination (in-house subject area exams)

Departmental faculty shall identify those undergraduate courses, if any, for which students may earn credit by examination.

If a student is successful in challenging a course, the title of the course, credit hours and notation of credit by examination will be recorded on the student's permanent record/transcript. (Unsuccessful attempts are not recorded on the transcript.) The credit hours earned by examination do NOT count in the student's load for the semester nor in the calculation of the student's grade point average.

The non-refundable fee for credit earned by examination is $50 per course. Application forms for credit by examination are available from the Office of Admissions and Records.

A student may earn credit by examination in any of the approved courses subject to the following conditions:

- the student has not previously earned credit in the course at USC, has not previously failed a challenge exam for the course, or has not previously failed the course itself;
- the student has approval of the appropriate department chair (with appeal rights to the dean) to take the challenge examination;
- the student's performance on the examination is at the level of B or better;
- the student is currently accepted for admission to USC or is enrolled and in good academic standing at the time the examination is administered;

- the student does not use the challenged course to satisfy the residency requirement for graduation; and

- the student satisfies any and all additional criteria as specified by the department.

V. General Education Test-Out Policy (in-house)

All courses satisfying general education requirements have a test-out procedure. The student does not receive a grade or credit for the course, nor does the test-out appear on the transcript.

Students wishing to test out of a course should contact the chair of the department offering the course. A student who successfully completes the test-out examination with a grade of B or better satisfies that particular general education requirement.

General education test-out examinations are free of charge.

FINAL EXAMINATIONS

Final examinations are not to be scheduled at times other than those published in the semester course bulletin. In some courses a final examination may not be appropriate to the material; however, classes meet through the period scheduled for the final examination.

FACULTY RECORDS

All faculty members keep appropriate records (such as grade books or sheets) of each student's progress in every course offered for university credit. The records are in addition to the final grade reports which are submitted to the Office of Admissions and Records at the end of each term. Records are retained by the faculty member's department for one year. They are treated in confidence by the faculty member and chair of the department.

REPEATING COURSES

An undergraduate student who has received a low grade in a course at USC can improve her/his cumulative grade point average by repeating that course at USC and earning a higher grade. The first two times a course is repeated, only the higher grade and credit earned are computed into the student's grade-point average, provided the student has requested a recomputation of grade-point average by the Office of Admissions and Records. The previously attempted courses and grades remain in the academic record but are not computed in the overall average. However, if a student elects to repeat a course more than two times, all grades earned thereafter will be computed in the grade-point average.

Transcripts contain an appropriate entry indicating that the course has been repeated and the grade-point average has been recomputed. If a student fails a course twice, only one failure is computed into the grade-point average. Students are discouraged from repeating those courses for which a grade of C or better has been earned.

If a student transfers a course to USC from another institution and subsequently repeats the course at USC, only the credit and grade points earned at USC will be allowed. Students should be aware that some academic departments place limitations on repetition of courses for majors and/or minors.

CLASS SCHEDULE CHANGES

Students are encouraged to secure adviser approval for all schedule changes. When students do not secure such approval, they assume full responsibility for their progress toward meeting degree requirements.

Students are responsible for processing schedule changes during the drop/add period. **Under no circumstances** shall the instructor assume this responsibility on behalf of the student.

Continuing students are strongly encouraged to take advantage of the pre-registration process in order to obtain the class schedule which best meets their needs.

Adding Courses

Courses may be added to a student's schedule during the drop/add period, as specified in the class schedules. Course additions must be processed through the Office of Admissions and Records.

Addition of Independent Study and Continuing Education

A resident student may enroll in independent study and continuing education courses only if the addition of such courses will not cause his or her program to exceed the maximum load allowable.

Dropping Courses

Courses may be dropped from a student's schedule through the drop/add period as specified in the semester course bulletin without a record of the dropped course appearing on the student's permanent record. Courses must be dropped officially through the Office of Admissions and Records. Short or mini-courses may be dropped in the same manner before 15 percent of the course duration has passed.

Withdrawing from Courses

Following the end of the drop/add period, students may withdraw from classes according to the policies below.

When a student withdraws from a course before 60 percent of the course duration has passed, a grade of W will be assigned. After 60 percent of the course duration has passed, a student may not withdraw. A grade of W does not affect the student's grade-point average.

WITHDRAWAL FROM THE UNIVERSITY

To withdraw officially from the university, students must file a withdrawal form with the Office of Admissions and Records.

Students who withdraw after the end of the drop/add period are not refunded full tuition and fees. To withdraw officially from the university, students must file a withdrawal form with the Office of Admissions and Records. Withdrawals will not be processed after the last scheduled class day of the semester. Students residing in the residence hall also must check out at the housing office.

Retroactive Withdrawal

Students may request that all grades in a previous semester be retroactively removed and replaced by entries of W on the transcript if they have experienced, during that term, health and/or personal problems so severe that they could not reasonably have been expected to complete the semester satisfactorily. The requests must be submitted with documentation of the problem to the Associate Director of Records within one calendar year from the end of the semester for which retroactive withdrawal is being sought. With the approval of the Associate Director of Records, the transcript will be changed with a notation of the retroactive withdrawal and the effective date.

Military Withdrawal

If military obligations interrupt the academic work of a member of the armed forces registered for courses, the student may ask instructors for an early termination of his or her courses. Early terminations may include, but are not limited to: 1) a grade of W; 2) an incomplete (IN) grade, if there is any chance the student will be able to complete the course requirements; 3) an early final examination and course grade; 4) partial course credit; or 5) an opportunity to complete the class by independent study. It is the student's responsibility to make such a request in writing to the instructor. After the student and instructor have agreed on the terms of early termination, the agreement must be approved in writing by the department chair and the dean.

Withdrawal for Non-Payment / Administrative Withdrawal

This withdrawal process is initiated by the Office of Student Financial Services when a student has not made timely payment or arrangements for payment for tuition and fees. The resulting grade is "WN".

EXPERIENTIAL CREDIT COURSES

Through cooperative education, internships, field experiences and laboratory research, students in many degree programs have the opportunity to expand knowledge and apply theory in real-life situations. All experiential credit courses occur under the direction of an academic instructor and are included in the regular university curriculum. In some cases, such courses are required for majors. All such courses require registration, and payment of tuition, carry credit, are listed in the catalog and include a planned program of activities outlined in the course syllabus. The grading system is the same as the system used for regular courses. Supervised work-experience courses are approved for inclusion in veterans class schedules under Veterans Administration Regulation 14265.

Credit for Life Experience

Some students may seek academic credit for previous out-of-school work experiences in which the job responsibilities were similar to experiences offered in university-sponsored internships and other programs. Credit for such experiences may be given if the following conditions are met:

1) The experience must be directly similar to the content of internships, field courses and/or laboratory courses in the regular curriculum;

2) The student must describe in writing the nature of the experience and what he or she learned through it;

3) The experience and learning also must be documented by the student's on-the-job supervisor. Documentation must include a detailed account of the nature, frequency and duration of the duties; and

4) A paper integrating the experiences with subsequent or concurrent classroom instruction must be submitted and approved.

The maximum number of credit hours allowed for life experiences is six. Any amount over six must be approved and justified by the appropriate dean to the provost. Credit for life experiences is granted only for experience gained within 12 years of the date the degree is expected to be awarded. Credit for life experiences is subject to the approval of the department chair and the dean of the college in which credit is requested.

Changes of Major

All changes of major must be made through the Office of Admissions and Records with the approval of the appropriate department chair.

CLASS ATTENDANCE

Students are expected to attend all classes for which they are enrolled unless excused by the instructor. No extensions of vacation periods are given to students regardless of the location of their homes. Non-attendance of classes caused by late registration is considered the same as absence. Students are not allowed to attend classes for which they are not properly enrolled unless permitted by the instructor.

The university does not have a policy permitting a specific number of cuts or absences from class. Each instructor establishes an attendance policy for his or her classes and must inform students in writing of the policy at the beginning of the term. However, the student's grades shall not be affected negatively solely due to absence from class because of participation in university-sanctioned events. Such university-sanctioned activities may include, but are not limited to: intercollegiate competition, participation on the forensics team, and field trips. Class absence due to university-sanctioned participation does not in any way excuse students from completing class preparations, assignments, examinations, or projects.

Although students may drop classes on their own initiative within time lines established by policy, faculty members have the right to drop students for non-attendance.

TRANSCRIPTS OF CREDIT

Official transcripts are issued by the Office of Admissions and Records at the **written and signed** request of the student. Effective August 24, 1998, the non-refundable fee for each official transcript will be $5. Transcript fees must be prepaid before official transcripts will be released. Acceptable methods of payment are cash, personal check, money order, VISA, MasterCard and Discover. Special fees are charged for special handling (overnight, FedEx, Priority).

All accounts with the University of Southern Colorado must be settled before an official transcript can be issued. Transcripts are processed as rapidly as possible and are usually issued within three working days from the date the signed request is received in the registrar's office. Students should allow extra time for issuance near the end of semester. Official transcripts on file from other institutions cannot be relinquished. USC does not accept E-Mail transcript requests.

FAXING OF TRANSCRIPTS

A pre-paid $10 fee is required for a transcript to be faxed to a destination within the United States; the charge is $15 for a transcript faxed outside the country. Since faxed transcripts are considered as working (unofficial) documents only, the fax will be followed up by an official (hard copy) version to follow by first class mail within three to four working days. In the event that the student is not eligible to receive an official transcript, i.e., outstanding accounts receivable balance, etc., only the (unofficial) faxed copy can be provided for the above fee.

HOW TO ORDER A TRANSCRIPT

Signed transcript requests should include the following information:

- Student's full name (including maiden or other name if applicable)
- Student ID number
- Date of birth
- The last term the student was enrolled at USC
- Instructions on whether the current semester grades are to be included (this is important when a transcript is ordered near the end of a term)

- The complete name and address of the agency, school or individuals to whom transcripts are to be sent.

- The student's signature (This provides USC with the necessary authorization to release the transcript to the designee.)

NOTES:

- Transcripts do **not** include Upward Bound, GED, ACT, SAT, GRE or college class rank information.

- If someone other than the individual named on the transcript has been authorized to pick up the document in person, they must provide a signed release from the person named on the transcript.

Payment

- If payment is to be made by credit card, please provide type (VISA, MasterCard or Discover), credit card number, expiration date, name of card holder, address of card holder and daytime phone number.

- If the order is for a faxed transcript, the following information is also needed:

  1) The fax number and name of the person to whose attention the transcript is to be sent

  2) The name and address to which the subsequent official, hard copy transcript will be mailed.

GRADUATION LIST

The official graduation list is prepared each term by the Office of Admissions and Records from the official Graduation Planning Sheets. Students will not be eligible to graduate unless their names appear on the list as approved by the Faculty Senate during the graduation term.

COMMENCEMENT

Commencement ceremonies are held twice each year, at the end of both the fall and spring semesters. Participation in these ceremonies is based on the understanding that all degree requirements will have been completed that term (summer graduates exempted). The official commencement brochure for each ceremony will contain only the names of those students eligible to graduate that particular semester. Students must participate in the commencement ceremony closest in time to their actual graduation date. (Tentative spring and summer graduates are eligible to participate in the spring ceremony. Likewise, tentative fall graduates are eligible for the fall ceremony.) Any exceptions must be approved by the Provost. Candidates must appear in official academic regalia at commencement exercises.

Graduation with Honors

There are three levels of University (baccalaureate degree) scholastic honors at graduation: *summa cum laude*, *magna cum laude* and *cum laude*. A minimum of 30 semester hours must be earned at USC for a student to be considered for these honors.

To graduate *summa cum laude*, a minimum cumulative grade point average of 3.900 is required; for *magna cum laude*, a minimum cumulative grade point average of 3.750 is required; and, for *cum laude*, a minimum cumulative grade point average of 3.500 is required.

For students who have attended USC only, *cum laude* status will be calculated and posted automatically; however, transfer students who wish to be considered for these honors must request the Office of Admissions and Records to compute their total grade point average for honors eligibility. All academic course work completed at regionally accredited institutions will be used in the grade point average calculation towards honors.

While honors will be listed in the commencement program for those who may reasonably anticipate them, the listing in the program is not a guarantee of receiving honors. The listing and reading of *cum laude* status for degree candidates are based on the grade point averages achieved at the beginning of the student's final semester. The official honor awarded, based on the final grade point average, will be noted on the student's diploma and transcript.

DIPLOMAS

Diplomas are dated and awarded to graduating students each semester (fall, spring and summer) upon graduation clearance of each student. The fall and spring commencement dates and the last day of the summer term are the dates recorded on diplomas and on the transcripts for all students fulfilling degree requirements within a degree granting period. The diploma is imprinted with the name of the degree awarded and the student's major. Minors or emphases are not printed on the diploma. Diplomas will be mailed to graduates approximately six to eight weeks after the end of the term in which the degree is conferred. Replacement diplomas may be issued for a specified charge upon a request from the original holder who certifies to the loss or damage of the original document.

PRIVACY RIGHTS OF STUDENTS/DIRECTORY INFORMATION

The university from time to time publishes several bulletins, lists, brochures, catalogs, directories, yearbooks, annuals, guidebooks, news releases, sports information, honor rolls, etc., containing information which specifically identifies students and information about them. The university is authorized to publish, and will publish such directory information, collectively or individually, unless a student, by the end of the second week of classes, notifies the student privacy office (Office of Admissions and Records, Administration Building, Room 201) in writing that any or all of the categories listed below (designated directory information) should not be released without prior written consent. The following information is considered directory information:

- student name
- address
- telephone number
- date and place of birth
- classification
- major field of study
- participation in officially recognized activities and sports
- weight and height of athletes
- dates of attendance
- degrees granted and dates conferred
- awards received
- most recent previous educational agency or Institution attended
- full or part-time status
- e-mail address

The university may, however, disclose personally identifiable information from the educational records of a student as provided in section 99.31 of the Student Right to Know Campus Security Act of 1990 **without** the written consent of the parent or the eligible student if the disclosure is:

1) other school officials such as administrators, supervisors, faculty, staff or on-campus law enforcement unit personnel within the educational institution who are determined to have legitimate educational interests;

2) officials of another school or school system in which the student seeks or intends to enroll, subject to the requirements set forth in section 99.34 of the Act; or

3) subject to the conditions set forth in 99.31-99.35 of the Act.

The university may also disclose personally identifiable information from the educational records of a student to appropriate parties in connection with an emergency if knowledge of the information is necessary to protect the health or safety of the student or other individuals.

REGISTRATION

Advisement

All students are required to consult an academic adviser before registering for classes. The major area assigns academic advisers. Academic advising for degree seeking students who have not selected a major, unclassified students and all first year students (students with 0-29 credits) regardless of academic major will be handled by the Academic Advising Center, Room 236 of the Psychology Building.

Registration Procedures

Details on registration procedures are published in the class schedule bulletin distributed to students well in advance of each registration period.

Payment of Tuition and Fees

Tuition and fees are assessed in accordance with approved policies. Instructions for payment and payment deadlines are stated in the class schedule bulletins. Specific information about tuition and fees is given in the class schedule bulletin each semester. Contact the Office of Financial Services at (719) 549-2234, Administration Building, Room 212 for more information.

Change of Address

Students should keep university authorities informed of their current address. A change in address should be reported immediately to the Office of Admissions and Records.

Completion of Student Courses

The university holds students responsible for completing all courses for which they have enrolled unless they obtain approval for a change in registration or file an official withdrawal. Students not following proper course or university withdrawal procedures will receive failing grades.

Immunization Requirement

Colorado law requires all college students born since January 1, 1957, to be immunized against measles, mumps and rubella.

Proof of immunity consists of:

- Measles - two doses of live measles vaccine administered after 12 months of age or a blood test showing immunity to measles.
- Mumps - two doses of live mumps vaccine administered after 12 months of age or a blood test showing immunity to mumps.
- Rubella - two doses of live rubella vaccine administered after 12 months of age or a blood test showing immunity to rubella.

Prior to registration please have verified immunization records sent to Student Health Services, University of Southern Colorado, Pueblo, Colorado 81001-4901 or fax records to (719) 549-2646.

Booster vaccinations are provided by Student Health Services free of charge if immunizations records indicate that a booster is necessary. For further information, contact the Student Health Services Office at (719) 549-2830.

UNDERGRADUATE PROGRAMS

DEGREE REQUIREMENTS

Candidates for the baccalaureate degree must satisfy institutional and general education requirements, as well as specific requirements for the major and minor or area of concentration. Students should plan to complete the basic competency requirements in the freshman year and should plan to complete the general education requirements in the freshman and sophomore years. Students must file an approved graduation planning sheet with the Office of Admissions and Records before midterm of the semester prior to the semester in which they plan to graduate.

INSTITUTIONAL REQUIREMENTS FOR ALL BACCALAUREATE DEGREES

1) Students must successfully complete a minimum of 120 semester hours of credit with an earned grade point average of 2.000 for all USC hours attempted and included in the GPA computation. Courses numbered below the 100-level **cannot** be applied toward graduation; (i.e. ENG 099, MATH 098, 099).

2) Students must successfully complete a minimum of 40 credit hours in upper-division courses (numbered 300-499). Upper division credit may be earned only through a four-year institution.

3) A minimum of 60 semester hours must be earned from a four-year institution. Of these, a minimum of 30 semester hours of credit, as stated in the program of the major, must be earned in residence (courses taken from the University of Southern Colorado) with a minimum grade point average of 2.000 for all resident hours attempted. (Both on-campus and continuing education for-credit courses are considered resident credit.)

4) For degree purposes, USC accepts a maximum of 60 semester hours from community or junior colleges.

5) For degree purposes, USC accepts a maximum of 90 semester hours from other four-year institutions.

6) Of the last 30 semester credits earned immediately preceding graduation, no more than 15 may be completed at other colleges or universities.

7) A maximum of 30 semester hours of correspondence credit may be applied toward the baccalaureate degree.

8) A student may earn a maximum of 30 hours of credit by examination.

9) Students must successfully complete the requirements for an approved major, and a minor or area of concentration outside the major.

10) Students must achieve a minimum grade point average of 2.000 in their major field of study. (Some majors and programs require higher GPA's. Refer to specific program sections of this catalog for details.)

11) Students must achieve a minimum grade point average of 2.000 in their minor field of study or area of concentration.

12) Students must complete the Skills Component (English Composition I and II, Speech, Computer Usage and Mathematics) with a minimum overall GPA of 2.000.

13) Students must satisfactorily complete all general education requirements as defined and explained in the *General Education Requirements* section of the Academic Policies chapter of this catalog.

14) Candidates for the bachelor of arts degree must satisfy the foreign language requirement.

15) Degree candidates must file a completed *Graduation Planning Sheet* with the Office of Admissions and Records the semester before they plan to graduate (check course bulletin for specific deadlines).

16) Degrees are issued only at the close of each semester and summer session.

17) Degrees will be granted only at the end of the semester during which the student completes all degree requirements.

18) Additional majors or minors will not be awarded or posted to a transcript after a baccalaureate degree has been granted.

19) Once a baccalaureate degree has been awarded, the student cannot repeat courses in order to improve the undergraduate grade point average.

20) Students must meet all financial obligations to the institution.

MAJOR REQUIREMENTS

A baccalaureate candidate must select a major and successfully complete all requirements prior to receiving a degree. The minimum number of required semester hours varies by major but must include a departmentally approved program of **at least 30 semester hours of course work in the program of study.**

Emphasis area/option

Certain programs of study may specify emphasis or option areas within majors. Only the official emphasis areas will be recorded on the transcript.

MINOR OR AREA OF CONCENTRATION REQUIREMENTS

In addition to a major, all students must complete either a minor or a concentration of interrelated courses totaling at least 20 semester hours. Minors consist of a sequence of courses in a specific academic discipline which are established by the department offering the minor. General education courses apply towards both the minor and the area of concentration. A double major satisfies the minor requirement. An area of concentration is a selection of interrelated courses supporting a specific academic major. Upon graduation, completed minors are recorded on the transcript; areas of concentration are not.

DOUBLE (SECOND) MAJOR

Students may choose to complete concurrently the requirements for two majors. Students seeking a double major must satisfy the requirements of both majors as stated by both departments involved under a single degree program. The single degree awarded is that degree appropriate for the first major. A single diploma is issued which displays both majors and both majors are recorded on the student's academic transcript.

After a degree has been awarded, the Office of Admissions and Records does not change the transcript to add additional majors, emphasis areas or minors.

SECOND BACCALAUREATE DEGREE

A second baccalaureate degree may be granted in a major area other than that in which the first baccalaureate degree was granted provided the student has met all requirements for the second baccalaureate degree, including not fewer than 30 semester hours of University of Southern Colorado (resident) credit beyond the first degree with a minimum grade point average of 2.000. The additional 30 hours of credit must have the approval of the department from which the second degree is to be earned. Students seeking a second degree are eligible for the Deans' List and for graduation with distinction.

The additional credits required for the second degree may be completed concurrently with the credits applying to the first degree and the two degrees may be granted simultaneously, providing all requirements are completed for both degrees. Simultaneous degrees require two separately completed degree planning sheets as well as the permission of the provost.

If the student possesses a baccalaureate degree from a regionally accredited college or university, the general education and institutional requirements are considered complete.

BACHELOR OF ARTS DEGREE: FOREIGN LANGUAGE REQUIREMENT

Students seeking the degree of bachelor of arts must complete one of the two options listed below:

1) Completion of the second semester of a foreign language (course number 102).
   - Students may test out of the course.
   - Completion of a foreign language course above 102 with a grade of C or better will satisfy the requirement.
2) Completion of FL 100, Introduction to Comparative Linguistics, *and* ANTHR/ENG 106, Language, Thought and Culture.

International students for whom English is a second language may substitute two semesters of English courses (excluding ENG 101 and ENG 102) for the foreign language requirement.

GENERAL EDUCATION REQUIREMENT

Graduates of the University of Southern Colorado are lifelong learners who have developed the intellectual and ethical foundations necessary for an understanding of and respect for humanity as well as the knowledge and skills necessary to adapt to the demands of a rapidly changing society.

To help students achieve these goals, the skills component of the USC general education program is designed to give students the basic literacy, computing and quantitative skills necessary for success in their undergraduate studies and future careers. The knowledge component is designed to give students direct experience in the methods of thought and inquiry in three central areas of academic endeavor: the arts and humanities; the social sciences; and the natural sciences and technology.

Through their experiences in these areas, students develop and refine their ability to

- participate in a variety of types of critical inquiry and thought,
- communicate clearly and effectively,
- investigate and understand important social issues,
- appreciate the arts and humanities,
- understand the histories, cultures and experiences of the diverse populations of the United States and the world, and
- understand the influence of science and technology on social institutions and personal relations.

The general education requirement for graduation includes a total of 33 semester credits in two categories:

Skills Component ..... 14 credits
Knowledge Component ..... 19 credits

TOTAL ..... 33 credits

I. SKILLS COMPONENT

The skills components must be completed with a minimum overall GPA of 2.0. The requirements included within this component should be completed as early as possible, preferably during the freshman year.

A. Literacy and Communication Skills (9 credits)

Take **each** of the following courses:

ENG	101	English Composition I	3 credits
ENG	102	English Composition II	3 credits
SPCOM	103	Speaking and Listening	3 credits

B. Computing Skills (2 credits minimum)

Take **one** of the following courses:

BUSAD	160	Introduction to Computers and Processing	2 credits
CIS	101	Computers and You	2 credits
CIS	110	PC Productivity and the Internet	3 credits
EN	103	Introduction to Engineering	2 credits

or both of the following courses:

ART	104	Computer Graphic Literacy	1 credit
MUS	105	Introduction to Music and Computers	1 credit

or a course approved by your major program. Consult your advisor for more information.

C. Quantitative Skills (3 credits minimum)

Take **one** of the following courses:

MATH 109 or higher (Note: MATH 360, MATH 361, MATH 463 and MATH 477 may not be used to satisfy this requirement.)

Students who score 23 or better on the mathematics component of the ACT exam are exempted from this requirement.

II. KNOWLEDGE COMPONENT

The requirements within this component should be completed within the first two years. Your major may recommend certain courses from this list. Refer to your major's catalog description for more information.

Students are required to take one cross-cultural course. Courses that meet this requirement are so designated ***(CC)***.

A. Humanities (6 credits)

Total of six credits from two different disciplines:

ART	100	Visual Dynamics ***(CC)***
ART	105	History Through Art I ***(CC)***
ART	106	History Through Art II ***(CC)***
		***
ENG	130	Introduction to Literature
ENG/CS	220	Survey of Chicano Literature ***(CC)***
ENG	223	Modern World Literature ***(CC)***
ENG	240	Survey of Ethnic Literature ***(CC)***
		***
FRN	101	Beginning Spoken French I **(CC)**
FRN	102	Beginning Spoken French II ***(CC)***
FRN	201	Intermediate French I ***(CC)***
FRN	202	Intermediate French II ***(CC)***
GER	101	Beginning Spoken German I ***(CC)***
GER	102	Beginning Spoken German II ***(CC)***
GER	201	Intermediate German I ***(CC)***
GER	202	Intermediate German II ***(CC)***
ITL	101	Introduction to Italian I ***(CC)***
ITL	102	Beginning Spoken Italian II ***(CC)***
ITL	201	Intermediate Italian I ***(CC)***
ITL	202	Intermediate Italian II ***(CC)***
RUS	101	Introduction to Russian I ***(CC)***
RUS	102	Beginning Spoken Russian II ***(CC)***
RUS	201	Intermediate Russian I ***(CC)***
RUS	202	Intermediate Russian II ***(CC)***
SPN	101	Beginning Spanish I ***(CC)***
SPN	102	Beginning Spanish II ***(CC)***
SPN	201	Spanish Grammar & Comp. I ***(CC)***
SPN	202	Spanish Grammar & Comp. II ***(CC)***
		***
HONOR	250	Honors Literary Themes
		***
MUS	118	Music Appreciation ***(CC)***
		***
PHIL	102	Philosophical Literature
PHIL	120	Non-Western World Religions ***(CC)***
PHIL	201	Classics in Ethics
PHIL	204	Critical Reasoning
		***
TH	111	Theatre Appreciation ***(CC)***
TH	112	Film Appreciation

B. Social Sciences (6 credits)

Total of six credits from two different disciplines:

ANTHR	100	Cultural Anthropology ***(CC)***
		***
CS	101	Introduction to Chicano Studies ***(CC)***
		***
ECON	201	Principles of Macroeconomics
		***
GEOG	103	World Geography ***(CC)***
		**
HIST	101	World Civilization to 1100 **(CC)**
HIST	102	World Civilization from 1100 to 1800 ***(CC)***
HIST	103	World Civilization since 1800 ***(CC)***
HIST/CS	136	Southwest United States ***(CC)***
HIST	201	US History I
HIST	202	US History II
		***
HONOR	220	Honors Health Issues
HONOR	230	Honors Int. and Economic Issues
		***
MCCNM	101	Media and Society
		***
POLSC	101	American National Politics
POLSC	200	Understanding Human Conflict ***(CC)***
		***
PSYCH/POLSC/SOC/SW/WS ~~105~~ 231		Marriage, Family and Relationships ***(CC)***
PSYCH/SOC/WS ~~231~~ 105		Understanding Human Diversity ***(CC)***
PSYCH	100	General Psychology
PSYCH	151	Human Development
PSYCH	222	Understanding Animal Behavior
		***
SOC	101	Introduction to Sociology
SOC	201	Social Problems

C. Science And Technology (7 credits)

Total of seven credits from two different disciplines, including one lab credit:

BIOL	100	Principles of Biology
BIOL	100L	Principles of Biology Lab
BIOL	121	Environmental Conservation
BIOL	121L	Environmental Conservation Lab
BIOL	223	Human Physiology and Anatomy I
BIOL	223L	Human Physiology and Anatomy I Lab
		***
CHEM	101	Chemistry and Society
CHEM	101L	Chemistry and Society Lab
CHEM	111	Principles of Chemistry
CHEM	111L	Principles of Chemistry Lab
CHEM	121	General Chemistry I
CHEM	121L	General Chemistry I Lab
		***
EN	315	Introduction to Industrial and Systems Engineering
		***
EXHP/BIOL	162	Personal Health
EXHP	201	Drugs and Healthy Lifestyles
		***
FMTS	205	Issues and Trends in Technology
		***
GEOL	101	Earth Science
GEOL	101L	Earth Science Lab
		***
HONOR	210	Honors Life Science and Technology
HONOR	240	Honors Physical Science
		***
MET	105	It's a Material World
		***
PHYS	110	Astronomy
PHYS	140	Light, Energy and the Atom
PHYS	140L	Light, Energy and the Atom Lab
PHYS	201	Principles of Physics I
PHYS	201L	Principles of Physics I Lab
PHYS	221	General Physics I
PHYS	221L	General Physics I Lab

IV. TRANSFER STUDENTS

The University of Southern Colorado may accept the general education requirements included in the Associate of Arts (AA) or Associate of Science (AS) degree from a regionally accredited two-year or four-year college as a substitute for USC's general education requirements. Transcripts will be reviewed on an individual basis by the Office of Admissions and Records to determine if general education requirements are satisfied.

In addition, USC accepts the Colorado Community College and Occupational Educational System General Education Core Transfer Program as a substitute for the university's general education requirements for a student who is certified as having successfully completed the core curriculum.

Transfer students from Colorado four-year colleges or universities who have completed general education requirements with a minimum 2.000 grade point average will be considered to have fulfilled USC's general education requirements. However, only courses with grades of C or better will be accepted for credit in transfer. It is the student's responsibility to document that the general education requirements were satisfied at the transfer institution.

V. READMIT STUDENTS

Students readmitted to USC must fulfill the requirements in the general education program in effect at the time of readmission.

VI. COURSE SUBSTITUTIONS/WAIVERS

Substitutions and/or waivers for courses fulfilling general education requirements must be approved by the associate director of records.

ASSESSMENT PROGRAM

Legislation enacted by the Colorado General Assembly requires that:

1) institutions of higher education be held accountable for demonstrable improvements in student knowledge, capacities and skills between entrance and graduation;

2) such demonstrable improvements be publicly announced and available;

3) institutions express clearly to students the expectations for student performance; and

4) such improvements be achieved efficiently through the use of student and institutional resources of time, effort and money.

The University of Southern Colorado, in response to the aforementioned requirement, has adopted an assessment plan which contains the following provisions:

1) the basic educational goals for all undergraduates shall be communicated to students in the form of performance expectations for all students;

2) each department shall develop and publish specific curricular, co-curricular, and appropriate student performance expectations for students by major;

3) information on student improvement from entrance to graduation shall be collected, used, and publicly reported;

4) information on after-graduation performance of students shall be collected by means of surveys of graduates, employers, and graduate/professional schools;

5) information on student and alumni satisfaction with their education shall be collected by means of surveys and interviews; and

6) information collected for the accountability report shall be reported annually to the State Board of Agriculture and the Colorado Commission on Higher Education and used for the purposes of improving the quality of the educational experience at the university.

In recognition of the evolutionary nature of an accountability and assessment program, the university acknowledges that the provisions of the plan, as they are stated in this catalog, may change at any time during a student's residence. The university will make reasonable efforts to inform students of any modifications to the plan.

BASIC EDUCATIONAL GOALS FOR ALL UNDERGRADUATES

The university requires all students to meet or exceed the following performance expectations:

1) Fields of Study Goals

Major Field

Students shall demonstrate outcomes (proficiency) in the major by a variety of assessments specified by the faculty of the department offering the major. Faculty will determine and publish the expected outcomes for each major offered, and the students in the major will be provided with career planning in terms of the expected outcomes.

Minor Field

Students shall demonstrate outcomes in the minor by a variety of assessments specified by the faculty of the department offering the minor. Faculty will determine and publish the expected outcomes for each minor offered.

2) Intellectual Skills Goals

Literacy Skills

Students shall demonstrate effective skills in reading, writing, speaking and listening (public and interpersonal communication), visualizing, computing, locating and documenting sources of information.

Quantitative Skills

Students shall demonstrate the ability to understand and interpret numerical and graphical data.

3) Intellectual Capacities Goals

Problem Solving, Logical Inquiry and Critical Analysis

Students shall demonstrate the abilities of identifying, defining and solving complex problems through logical inquiry and creative exploration; engaging in critical analyses; testing hypotheses; and discriminating between observation and inference.

Assessment of Basic Educational Goals

To assess the extent to which students meet or exceed the above performance goals, the university requires that students who have completed at least 90 credit hours be subject to interviews, portfolio maintenance, or standardized tests relative to the assessment of basic educational goals.

To assist students in preparing to meet the performance expectations stated in the basic educational goals provision of the accountability program, the faculty recommend that students:

1) meet the institutional requirements as early as possible, preferably in the freshman year; and

2) meet the general education requirements by the end of the sophomore year, to the extent allowed by the degree program.

Educational Goals for Majors and Minors

Individual departments expect students to meet or exceed performance expectations as stated in each college/school section of this catalog.

Departmental assessment plans differ in accordance with requirements of specific disciplines; however, each plan typically includes the following information:

- Departmental Goals
- Expected Student Outcomes
- General Requirements
- Specific Requirements for Majors
- Co-curricular Requirements (if any)
- Outcomes Assessment Activities

In consideration of the evolutionary nature of departmental assessment plans, departments reserve the right to modify assessment plans as appropriate and necessary. Students will be notified of any such changes.

Student Surveys

The University will conduct surveys during student attendance and for a period of five years after graduation to assess the level of educational satisfaction. Students are strongly encouraged to respond to these surveys and to provide other appropriate forms of feedback so that the University may use the results to continue to improve the quality of education at USC.

Dissemination of Results

Assessment results will be disseminated by the departmental faculty in accordance with the department assessment plan; other results will be available in the Office of the Provost.

Assessment program inquiries may be directed to the director of assessment in care of the Office of the Provost.

GRADUATION RATE

Under the Students Right to Know and Campus Security Act of 1990, colleges and universities are required to publish the graduation rate of first-time undergraduate students. This graduation rate is defined as the percentage of first-time undergraduate students who complete their bachelor's degree, at USC, within six years of their initial enrollment. First-time undergraduate students are defined as full-time, degree seeking undergraduate students who enroll at the University of Southern Colorado with no previous college experience.

The University's average graduation rate for the most recent 3 year average of entering cohorts is 27%, a rate comparable with graduation rates of other regional public institutions in Colorado

SPECIAL ACADEMIC PROGRAMS AND SERVICES

THE UNIVERSITY LIBRARY

The University Library provides information services to students, faculty, staff and patrons throughout the city and region.

Library faculty and staff assist patrons in learning how to find and utilize books, periodicals, internet sources, audio-visual materials, and government documents through instruction for individuals, small groups or formal classes. Staff also prepare subject bibliographies for classes and arrange inter-library loans.

Approximately 200,000 volumes are available, as well as more than 1,300 periodical titles. The University Library is a designated selective depository for U.S. Government documents and geological survey maps. Special collections include Colorado documents; the papers of Vincent Massari, former state senator; the Alva Adams family papers; Tobi Hopkins Black Literature; the Ralph Taylor Southwest collection, and the Edward O'Brien Western collection.

INTERDISCIPLINARY STUDIES

The Interdisciplinary Studies Program offers students opportunities to take courses that bring interdisciplinary perspectives to bear on particular issues and processes such as learning, leadership, and organizational dynamics. The program includes the President's Leadership Program, the Honors Program and several courses that provide students with interdisciplinary perspectives and opportunities to study in courses not regularly offered through the disciplinary curricula.

PRESIDENT'S LEADERSHIP PROGRAM

Director: Patricia Orman
Assoc. Professor of Mass Communications

The University of Southern Colorado President's Leadership Program (PLP) is a four-year, competitive, cohort-based, multidisciplinary program with a strong experiential emphasis that leads to a minor in Leadership Studies. The curriculum includes a core of four three-credit-hour courses and eight credit hours of approved elective courses selected from leadership courses offered through the Hasan School of Business and the Colleges of Humanities and Social Sciences, Science, and Mathematics, and Applied Sciences and Engineering Technology.

The purpose of the President's Leadership Program is to develop engaged and socially responsible citizens who will assume leadership roles in their professions and communities. Crucial to the development of participants' leadership skills and practices are the acquisition of intercultural competence, social consciousness and civic responsibility, as well as ethical and altruistic attitudes and behaviors.

President's Leadership Program Goals

- To provide a sequence of courses and professional placements centered in the concept of servant leadership;
- To offer challenging experiential opportunities for students in diverse leadership settings;
- To showcase individual student interests and goals through mentorship, personal development strategies, and internship placements.

Requirements for Leadership Studies Minor

Program participants will receive the President's Leadership Scholarship, $2000 per academic year ($1,000 per fall and spring semester), for a maximum of four years. Recipients must remain in good academic standing within the program in order to renew the scholarship. Program participants must maintain a minimum grade point average of 3.0 within the minor in order to remain in good academic standing. Program participants will be expected to become involved in extra-curriculum activities on campus and the community.

Program Admissions

All program participants must meet the minimum program admission requirements, and must submit all of the components of the application portfolio. Applicants will be interviewed by members of the PLP Advisory Council as part of the selection process.

Admissions Criteria

Students must be admitted to the University of Southern Colorado. Applicants to the President's Leadership Program must demonstrate academic excellence, leadership potential, and community service experience. Each of these factors will be weighted equally in the selection process.

Application Process

In addition to meeting the minimum academic requirements for admission to the President's Leadership Program, students must submit a portfolio that includes the following:

- President's Leadership Program Application Form
- Applicant's resume (including personal objectives, education, work experience, school and community leadership experiences, honors and awards, reference names of three professionals).
- An essay on leadership (2-3 pp.).
- Three letters of recommendation from professionals (teachers, principals, pastors, employers, etc.).
- A copy of official transcript for most recent coursework completed.
- Other supporting documentation of leadership (newspaper articles, newsletter clippings, etc.,).

Timelines

Application materials must be received in the USC Office of Admissions and Records by the close of business on February 1 of each year. Interviews with the members of the PLP Advisory Council will be scheduled for the month of March each year.

Leadership Studies Minor
(Prerequisite: Acceptance into President's Leadership Program)

Requirements:

Course	Titles	Credits
IS 160	Introduction to Leadership	3
IS 260	Leadership in Service Organizations	3
IS 360	Working with Experienced Leaders	3
IS 460	Applied Leadership	3
Approved Electives (minimum)		8
	TOTAL	20

Students may choose from the following electives to complete the minor in Leadership Studies. Students are encouraged to diversify their selections and avoid taking eight hours in one disciplinary area. Special topics courses related to leadership may also be approved on a case by case basis. Course descriptions for these classes are included in the 2001-2002 USC catalog. (In some cases, prerequisites or permission of instructor may be required for enrollment. See course description section of catalog for prerequisites.)

Courses	Titles	Credits
BUSAD 270	Business Communications	3
MCCNM 370	Non-Profit Orgs & Communication	3
MGMT 201	Principles of Management	3
MGMT 301	Organizational Behavior	3
PHIL 201	Classics in Ethics	3
POLSC 405	The American Presidency	3
PSYCH 315	Organizational and Administrative Psychology	3
REC 270	Outdoor Leadership I	2
REC 350	Leadership and Ethics	3
REC 370	Outdoor Leadership II	2
SW 370	Non-Profit Orgs & Communication	3
SOC 430	Industrial Organizations	3
SOC 432	Organization Theory	3

POLSC/PSYCH/SW/SOC/WS 105 (Understanding Human Diversity) This 3 credit interdisciplinary course is offered by several departments and is often taken as a Social Science (SS) general education course. PLP strongly recommends this course and students may count it toward the Leadership Studies minor.

UNIVERSITY HONORS PROGRAM

Director: Ronald Aichele, Ph.D.
Professor of Philosophy

The university honors program, which offers a minor, provides intellectually invigorating challenges for academically talented students. In small, inter-disciplinary seminars, students explore the natural and applied sciences, social sciences, and the humanities. "Graduation with honors" is a significant designation for students applying to graduate or professional schools, or seeking employment.

Program Goals for the Minor in Honors

- To provide a sequence of thematic, interdisciplinary seminars that will enhance both the students' depth and breadth of knowledge.
- To offer intellectually invigorating challenges and opportunities to students.

- To provide a program that builds to a project undertaken in the student's senior year under the one-to-one supervision of a faculty mentor in the student's major field.

Expected Student Outcomes

General Requirements

Criteria for admission to the University of Southern Colorado Honors Program:

1) Incoming freshmen to the University of Southern Colorado are invited to apply for the honors program if they graduated high school with a GPA of 3.500 or higher and have attained a minimum ACT score of 25.

2) Undergraduate students already enrolled at USC with a minimum grade point average of 3.500 are invited to apply for membership in the honors program. Two letters of recommendation from faculty members at USC addressed to the honors program director are also required for admission into the honors program.

3) Transfer students with a minimum grade-point average of 3.500 are invited to join the honors program. In addition, transfer students with a minimum grade point average of 3.500 may transfer up to six hours of honors credit to the USC honors program with the approval of the honors director. Two letters of recommendation from faculty members at the student's former institution addressed to the honors program director are also required for admission into the honors program.

6) Students who do not meet the requirements for regular admission into the honors program may apply for provisional acceptance. The academic standing of these students will be addressed after one regular (i.e., fall, spring) semester at USC during which time 12 credit hours, including one three-hour honors, must be completed. Students who meet the standards for the honors program will be granted full admission into the honors program at that time. If they fail to meet the admission.

5) Admission of non-honors students into honors courses is at the discretion of the faculty member teaching the course, with the approval of the honors director.

Students may enroll in a maximum of two honors courses. They may, however, apply for admission to the honors program if their overall grade-point average and their honors coursework are commensurate with the general standards for admission.

6) Students enrolled in the honors program will be placed on probation if their overall grade-point average falls below 3.500 or their grade-point average in honors courses falls below 3.000. Students placed on probation will have two semesters in which to bring their grade-point average to acceptable levels. If they fail to do so within this time period, they will be suspended from the honors program.

Honors Curriculum

1) To graduate with honors designation the candidate must complete 16 credit hours consisting of the following course work:

Introduction to Honors Seminar	1
Honors general education courses	6
Honors upper-division courses	6
Senior Project/Thesis	3

2) A student in the honors program may complete a minor in honors, consisting of the following 22 credit hours:

Introduction to Honors Seminar	1
Honors general education courses	9
Honors upper-division courses	9
Senior Project/Thesis	3

3) Honors courses are of three types: (1) honors sections of standard courses already contained with the university's curriculum; (2) honors courses developed specifically for honors students; and (3) contract honors courses. A maximum of three hours of contract honors courses will be credited toward graduation with honors. A maximum of six hours of contract hours courses will be credited toward graduation with a minor in honors. Honors students wishing to take contract courses are responsible for contacting individual faculty members to work together to develop a written plan of study, which must be submitted to the honors director for final approval.

Outcomes Assessment Activities

Student portfolios are compiled by the office of the honors director for each freshman entering the honors program. The portfolios are maintained in the honors program office and include, but are not limited to, the following assessment items:

- including ACT or SAT scores, high school GPA, class rank, hobbies, awards and intended major;
- co-curricular inventories including evidence of awards, presentations, student government involvement and participation in campus organizations;
- selected examples of writing;
- the honors project; and
- an updated list of the honors courses completed and the grades received.

From The Director:

The Honors Program at the University has not had a long history, but it has attained the reputation of attracting some of the best and brightest students from many of the disciplines represented on the campus, and I am genuinely proud of the academic accomplishments they have earned for themselves and for our Honors Program. Our program offers a distinctive curriculum of courses for exceptionally talented and mature students; they have the opportunity to study with our finest professors in small seminar classes, all of which are especially designed to encourage both critical and creative thinking through innovative methods of study. The Honors Program focuses on two forms of coursework that are unusual to most college campuses. We emphasize both the study of the historical legacy, and the classical literature, of various fields and the study of the interconnections of disciplines, usually referred to as multi-disciplinary studies. I believe that the development of the mind in both of these directions, cultural and intellectual breadth along with historical depth, are defining characteristics of our honors students. If you are considering attending U.S.C., or are currently a U.S.C. student, and are qualified for admission into the Honors Program, I would welcome the opportunity to visit with you to tell you more about the advantages of our program.

Ron Aichele, Ph.D.

CONTINUING EDUCATION

The University makes available a broad array of credit and non-credit courses, seminars and workshops through the Division of Continuing Education. Some programs are offered on campus and others at off-campus sites more convenient to persons living outside of Pueblo.

Off-campus instruction sites include Colorado Springs Downtown Center, Peterson Air Force Base, the Air Force Academy and Sabin Junior High School in Colorado Springs, Altus Air Force Base in Oklahoma, McGuire Air Force Base in New Jersey, community college campuses throughout central and southeastern Colorado and on-site at many local businesses.

Both degree- and non-degree seeking students are allowed to participate in Continuing Education programs. (Only degree-seeking students are eligible for financial aid.) Persons desiring classification as degree-seeking students must apply for admission to the university. Credit courses taken through the University of Southern Colorado Continuing Education program have the same credit value as those conducted on campus and my be used in meeting the institutional residency requirement.

A primary aim of the Division of Continuing Education is to provide courses to part-time students. A variety of educational methods - classroom instruction, televised courses, on-line courses, conferences, workshops and seminars - are utilized in an attempt to meet the needs of such students at convenient times and settings. Students may earn academic credit toward a degree, study for career advancement, or pursue cultural and avocational interests.

Continuing education courses are of varied lengths. Intensive classes usually are held in the evening or on weekends for the convenience of working students. Although the majority of course offerings are initiated by the university, courses may originate through requests by individuals and interested groups. Such special request courses may take place either on or off campus.

The division also administers the Senior to Sophomore program in the public schools. The program enrolls eligible high school students in dual-credit courses which are delivered by part-time university faculty on the high school campus.

In-house training programs are available to meet the ever-changing needs of business and industry. The programs can be designed to meet the specific needs of an organization and may be presented at the company site or, if requested, at the university. Similar services are available to school districts.

CENTER FOR INTERNATIONAL PROGRAMS

The Center for International Programs (CIP) is responsible for the recruitment, admission and retention of international students at USC. Some of the services provided are: transcript evaluations, translations, housing placement, airport pick-up, student orientation, cultural activities, assistance with immigration issues, academic concerns, and referrals for academic and personal counseling. All services are free of charge.

CIP is also responsible for the Study Abroad and Student Exchange Programs, those programs provide opportunities for USC students to study in accredited universities throughout the world.

CIP staff maintains an open door policy, ensuring that every international student has an opportunity to be heard and helped when needed. Typically, there are at least 40 countries represented during any given semester. Student academic success within the entire international population is our primary goal.

- ***Orientation***: All new international students to USC are required to participate in a two-day mandatory orientation upon arrival. Students will be administered an English placement exam results will indicate registration to the appropriate English course, and do not interfere with admission to the university.

- ***Activities***: International students are encouraged to participate in all activities offered by USC. In addition, the Center for International Programs hosts individual events throughout the academic year. Annual events include the International Kite Fly, welcome and graduation parties, the International Extravaganza, holiday celebrations and field trips.

- ***Sports***: International students are encouraged to participate in intramural sports offered at USC. In addition, the Center for International Programs supports and organizes informal soccer, tennis, ping-pong and swimming teams.

STUDY ABROAD PROGRAMS

The University of Southern Colorado values the benefit of an education that includes international experiences. Consequently, the university encourages students with second language proficiency, when appropriate, to enroll in our USC Study Abroad Programs. Students wishing to increase their cultural awareness, second language proficiency or competency in subjects offered in international settings, are encouraged to contact the Center for International Programs. Study abroad opportunities for USC students are presently available in accredited universities in : the People's Republic of China, The United Kingdom, France, Germany, Indonesia, Italy, Japan, Malaysia, Mexico, Spain, and Thailand.

For more information call (719) 549-2329, e-mail: intprog@uscolo.edu or visit our website at http://www.uscolo.edu/intlprog or visit personally with our study abroad coordinator.

AMERICAN LANGUAGE ACADEMY

The American Language Academy leases facilities on the USC campus to provide an intensive English-language program for international students.

Students in ALA levels 4, 5, and 6 can choose to receive USC credit for their work at ALA. Students can earn 3 credits upon the successful completion of each level.

International students enrolled in the American Language Academy who are in the highest levels (5 or 6) may be permitted to enroll in USC classes for up to a maximum of nine semester hours of USC credit per semester. Approval by the university and the director of ALA is required. Students seeking admission to USC as degree-seeking students must meet the university's international admissions requirements. See above section for information.

The American Language Academy offices are located in the Occhiato Center, Room 103. Contact the American Language Academy by telephone at (719) 549-2222, Monday-Friday, 8 a.m. to 5 p.m., or write to the American Language Academy in care of the university.

ACADEMIC ADVISING CENTER

The USC Academic Advising Center (AAC) serves as the primary advisors for all first-year students and undecided students. The Academic Advising Team is comprised of faculty advisors from each academic college, professional advisors and peer advisors. AAC provides services to assist students in the following ways; a centralized; "one-stop" approach for students to be advised and register for classes in one location; explain academic policies and procedures; teach students about their academic program and graduation requirements; help evaluate student progress and performance in the classroom through

an early alert system; administer assessment activities to identify and clarify values, interests, abilities and goals (Strong Interest Inventory, Myers Briggs Personality Type Indicator, and other on-line assessments); provide activities that help students relate self-information to occupational and educational information and assist with the implementation of choices and decision-making skills (Major's Fair and IS 101-Academic and Career Exploration Course); and guide students to academic departments after students' first year and/or when the student declares his/her major. AAC is located in the Psychology Building, Room 236, (719) 549-2584, email: teamusc@uscolo.edu.

Orientation

The Academic Advising Center (AAC) implements a year-round orientation program for new students (first-year and transfer) and parents & family members. Sessions are offered during the summer, at the beginning of each semester and during advanced registration for fall and spring semesters. Students will meet with key academic and administrative personnel, learn about university policies, complete math and English placement tests, receive academic advising and register **early** for classes.

Students will also have an opportunity to receive an update about their financial aid award, obtain student identification cards and parking decals, submit their proof of immunization and many other experiences that will help new students to be ready for their first semester at USC. Contact the AAC (719) 549-2584 for the latest orientation dates and/or to make a reservation to attend the next orientation program.

USC LEARNING CENTER

Writing Room

The Writing Room is a free service and provides students, staff, and faculty an inviting atmosphere to receive advice and positive feedback on any type of writing from research papers, resumes, and writing assignments to poetry or fiction. Visit us in the USC Learning Center in the Psychology building.

Online Writing Lab (OWL)

The Writing Room is also online. The same help offered face-to-face in the Writing Room is also available online at **www.uscolo.edu/owl**

Hungry Eye

The Writing Room in the USC Learning Center also is the proud home of Hungry Eye, our campus literary magazine.

Disability Resource Office

The Disability Resource Office provides support and reasonable academic accommodations to students with documented disabilities. We are located in the USC Learning Center in the Psychology building.

Academic Improvement Program

This program helps students develop an individualized plan for improving their academic standing.

Study Skills Program

The Study Skills Program is designed with students in mind. You can get help with notebook organization and time management, strengthening your study skills, and developing strategies that will help you study for tests, help put you in charge during examinations, and help reduce test anxiety. Visit the USC Learning Center in the Psychology building.

Group Tutoring Program

The Group Tutoring Program provides assistance through peer-led tutoring sessions. Group tutoring takes place in the USC Learning Center.

Study Room

The Study Room is open to all students who need a QUIET place to study. Visit the USC Learning Center in the Psychology building.

National Testing Program

The National Testing Program administers tests to both USC students and the community at large. Tests include: ACT, ACT Residual, SAT, GRE, Subject and Writing, CLEP, MAT, and The Foreign Service Officer Written Examination. Come to the USC Learning Center in the Psychology building.

CAREER CENTER

The Career Center, located in the Occhiato University Center, coordinates on-campus part-time student employment (work-study and hourly), part-time off-campus student employment, and summer employment. On-campus and off-campus part-time vacancies are posted outside the Career Center. Notebooks containing summer employment vacancies are available for review.

The Career Center also assists students with professional employment including internships and full-time employment. Notebooks containing internship announcements and full-time job postings are available for review.

Currently-enrolled students may make appointments with professional staff members. The services include career planning, resume and cover letter critique, practice interviews, career coaching/advising, and discussing self-directed job search strategies.

The Career Center also coordinates all on-campus recruiting by employers. On-campus recruiting schedules are available. For more information about programs or services offered by the Career Center, contact a staff member at (719) 549-2408 or check the website at http://www.uscolo.edu/careers

COOPERATIVE EDUCATION

Cooperative education provides an educational plan in which periods of study and periods of career-related work are combined in one program, individualized for each student. Students earn a salary and acquire academic credit in their majors while experiencing, on a temporary basis, their chosen career. The experience gives cooperative education students an opportunity to become well-acquainted with the employer which, in many cases, leads to permanent placement upon graduation. All cooperative programs are administered by the academic departments.

MATH LEARNING CENTER

The Math Learning Center (MLC) at USC gives students a place to work in a collaborative and supportive environment. Located in PM 112, students can drop by anytime. The services are free and the center is open Monday through Friday. Once there, students receive help from qualified tutors. The MLC is staffed by a center coordinator, and tutors who are upper division math, physics, biology, chemistry or engineering students. The tutors are trained to help students work through their own problems in classes as diverse as algebra, calculus and statistics. The MLC provides USC students a place and a plan for success in college level math classes. For more information, call 549-2189.

KTSC-TV

KTSC-TV is a non-commercial, public television station licensed to Rocky Mountain Public Broadcasting, Incorporated, and housed in the Buell Communication Center on the campus of the University of Southern Colorado. KTSC is the regional affiliate for the Public Broadcasting Service. (PBS).

KTSC-TV serves 250,000 households with 750,000 viewers throughout southern Colorado. Rocky Mountain PBS is a statewide public television network, composed of KTSC-TV, serving the entire southern Colorado region; KRMJ in Grand Junction, serving the Western Slope; and KRMA, serving Denver and northern Colorado.

The station broadcasts 24 hours per day; with daily schedules consisting of cultural, public affairs and educational programming for viewers of all ages.

KTSC-TV produces 8 hours per week of local programming from September through May. There are additional local productions that take place during the summer months. Local programs produced by KTSC-TV include, Matchwits, Homework Hotline, Horizons in Health, and Colorado Journal.

There are numerous opportunities for students to become involved with KTSC-TV. Television production courses offered through the Mass Communications Department and the Center for New Media are taught at KTSC-TV. Opportunities are available for advanced students in Mass Communications and Electronics to receive academic credit for working at the station.

FEDERALLY SPONSORED PROGRAMS

Minority Biomedical Research Support Program

Research opportunities in biology and chemistry are available to students interested in pursuing careers in biomedical science. Students gain hands-on experience working in modern laboratories with faculty mentors and other student researchers. Salaries and travel expenses to scientific meetings are supported by a grant from the National Institutes of Health.

Student Support Services

Student Support Services is a federally funded TRIO grant project providing an array of services to low-income and first-generation students, and students with disabilities. The purpose of USC SSS is to increase the retention and graduation rate of our participants. This is accomplished by providing supportive services such as academic action plans, tutoring (one-on-one and drop-in), academic, financial aid and career counseling, and peer mentoring.

To be eligible to receive services from the USC SSS Project, students must meet the following requirements:

- Be enrolled or accepted at USC as an undergraduate student
- Be a low-income student as outlined by Department of Education criteria OR
- Be a first-generation student OR
- Be a student with a documented disability AND
- Meet the academic criteria as established by the Project
- Be a U.S. citizen

Students who meet these criteria are encouraged to apply to become a participant in the USC SSS Project. For additional information, call (719) 549-2111.

Southern Colorado Educational Opportunity Center

The program provides and coordinates services in sixteen southern Colorado counties and one northern New Mexico county to assist eligible low-income, first generation and disabled adults to enter into secondary and post-secondary educational programs. The program also provides academic guidance, needed counseling, electronic filing of financial aid applications, and other support services for prospective and currently enrolled SCEOC students. Satellite offices are located at the community colleges in Lamar, La Junta, and Trinidad. Pueblo and Colorado Springs have community based service offices. The central headquarters responsible for the overall program and sponsored by USC is located on campus in Room, AD 308-A.

Upward Bound

The Upward Bound Program at the University of Southern Colorado is a pre-college program which generates skills and motivation necessary for success in education beyond high school. The criteria for acceptance into the program includes low-income and potential first generation students who are enrolled in high schools seeking to prepare themselves for entry into a post secondary institution.

Eligible participants must:

1) have completed the eighth grade;
2) be between the ages of 13 - 19;
3) be currently enrolled in a high school;
4) be planning to attend college;
5) need the services of Upward Bound to help fulfill their goals; and
6) have a high school grade point average of 2.500 or better.

Basic skills, counseling, tutoring and skills necessary for acceptance into and success in college are provided. An intensive six-week summer program offers six credits of college courses for graduating seniors. The remaining undergraduates attend daily classes emphasizing mathematics, science, English, and writing. Applications are available at high school counselors' offices. For more information, please call 549-2750.

UNIVERSITY SPONSORED PROGRAMS

Occhiato Center

During the academic year, the Occhiato Center is open regularly from 8:00 a.m. to 10:00 p.m. weekdays and as scheduled events require. The center is open on Saturday's and Sunday's during meal hours and as scheduled for events. Limited hours are established during summer and when classes are not in session. Center hours are extended to accommodate events and meetings.

USC Bookstore

The USC Bookstore is a modern 20,000 square-foot store in the Occhiato Center serving USC faculty, staff and students. Texts for classes, general-interest books, classroom supplies, sundries, calculators, greeting cards, and USC clothing and gifts are among the many items sold in the bookstore. The USC Quick Copy Center is now located in the bookstore. Hours of operation are printed in the semester course bulletin and on the bookstore entryway.

Identification Cards

All students enrolled should purchase an ID card, in the Occhiato Center, Room 102. The office is open Monday through Friday, from 8 a.m. to 5 p.m. There is a $10 charge for all ID's - new or replacement. Continuing students must have ID's validated each semester.

Vehicle Parking Permits

Students who park their vehicles on campus must display a valid permit. Permits may be obtained at the cashier's window prior to the first day of class. The cost of the permit is $24 for a decal, or $36 for a hang tag - which can be transferred from one vehicle to another.

LIBERAL STUDIES PROGRAM

Dr. Victoria Marquesen, Coordinator

During the 2000-2001 school year, the University of Southern Colorado submitted a proposal for a new program in Liberal Studies to the Colorado Commission on Higher Education. Once authorized, Liberal Studies will become the only approved major for students completing the Elementary Education teacher preparation program at USC. Because the curriculum is not available at the time of the catalog printing, students who have been admitted to USC's redesigned elementary education program after July 1, 2000, should consult with their assigned advisor.

The Liberal Studies major, which leads to a B.S. degree, is intended to provide a strong liberal arts education. Core requirements build upon students' experiences in General Education to provide both breadth and depth in the arts and humanities, English, math, sciences, and social sciences. Emphasis is placed on each area relative to the *Colorado K-6 Model Content Standards* to assure strong support for each area. Students are required to select an area of concentration or emphasis and, in consultation with an advisor from that area, develop a plan for study for an additional 12 hours in this area. The plan should include goals to be achieved by the concentration and the sequence of courses to achieve the goals. Areas of concentration may be chosen from Art, English, History, Math, Modern Foreign Languages, Music, Political Science, Psychology, Science, and Sociology.

All students must complete a minor in Elementary Education or in another discipline. Non-Elementary Education students who elect to major in Liberal Studies must select a professional or disciplinary minor of mostly upper-division work. The minor might extend knowledge and skills in one of the disciplines that are areas of concentration or might be a minor in a professional area that would require application of knowledge and competencies in Liberal Studies.

GRADUATE POLICIES AND PROCEDURES

Graduate Administration

Graduate programs and curricula at the University of Southern Colorado are developed by the faculty and administration in the instructional colleges, centers and schools and are administered with the assistance of the director of the Office of Admissions and Records. Academic policy matters are reviewed by the University Graduate Studies Committee. Each graduate program has a director or coordinator functioning as the person to contact for specific information. Each program is responsible for its own guidelines for graduate assistantships.

GRADUATE DEGREE PROGRAMS

The University of Southern Colorado offers selected graduate courses and programs for degree-seeking and non-degree students. Graduate degrees are offered in applied natural science (MSANS), industrial and systems engineering (MS), and business administration (MBA). In addition, the university participates in a consortial arrangement with Colorado State University for a graduate degree in M.Ed in Education and Human Resource Studies. A coordinated program is offered with Colorado State University for a master's degree program in social work (MSW). Although the latter programs are offered on the USC campus, the actual degrees are awarded by Colorado State University, respectively, and graduate regulations pertaining to the degrees follow the policies of the appropriate institution.

GRADUATE ADMISSIONS POLICIES AND PROCEDURES

A student who has received a baccalaureate degree from an accredited institution and who wishes to take either additional undergraduate courses or begin graduate courses must submit the following items to the Office of Admissions and Records, University of Southern Colorado, 2200 Bonforte Boulevard, Pueblo, Colorado, 81001-4901. The following items shall constitute the admission file for each applicant:

1) A completed application for admission to graduate programs of the University of Southern Colorado and an application fee of $35. The fee is non-refundable and is not applicable towards tuition. An application form may be obtained by writing the USC Office of Admissions and Records or by telephoning (719) 549-2461. Students in the (M.Ed.) in Education and Human Resource Studies consortium program apply directly to Colorado State University. Those students interested in the MSW program must apply to both Colorado State University and the University of Southern Colorado.

2) Official transcripts of all college and university work must be sent directly to the Office of Admissions and Records by each institution attended. Records received directly from students cannot be accepted except for advisement purposes.

3) The score from the aptitude portion of the Graduate Record Examination (GRE) or the score from the Graduate Management Admissions Test (GMAT) for students in business. Scores may influence the admission decision but are used primarily for advising.

4) For students whose native language is not English, a minimum score of 500 TOEFL (paper-based exam), 173 TOEFL (computer-based exam) or 80 on the Michigan Test of English Proficiency is required for admission. A minimum score of 550 TOEFL (paper-based exam) or 213 TOEFL (computer-based exam) is required for the master in business administration (MBA). Level 6 from the American Language Academy also is accepted. Students who complete an undergraduate degree at an institution in the United States are exempt from this requirement.

GRADUATE ADMISSION

The student is admitted according to the following criteria approved by the program department.

Admission to graduate studies does not constitute admission to a particular graduate program. Admission to a particular degree program must be approved by the program director upon review of the student's credentials.

Regular Status

Regular status will be given to degree-seeking students who meet all of the published requirements of their selected graduate program department. The requirements include:

- a baccalaureate degree from an institution accredited by the regional accreditation agency;
- the minimum undergraduate GPA established for the program: applied natural science – 3.000; business administration – 3.000; systems engineering – 2.800;
- submission of satisfactory scores from a standardized admissions test approved by the program department;
- a completed admissions file; and
- any additional requirements for the selected program, including completion of leveling courses to correct undergraduate deficiencies.

International students whose native language is not English must also meet the English language proficiency standard set forth in the Graduate Admissions section.

Conditional Status

The university provides a conditional status for students whose undergraduate grade-point average is between 2.500 and the minimum required for the particular program. In addition, program departments may specify conditions which may include higher grade-point averages, required scores on entrance examinations, or undergraduate major or course requirements as specified by the department. The director of the Office of Admissions and Records, on recommendation of the program director, will admit the student under conditional status if the student's grade-point average is at least 2.500, but not high enough for regular admission; or if the student has not met a condition specified by the program department. Such special action may be taken if there are positive indicators of graduate success, e.g., high GRE or GMAT scores, solid upper-division performance, or outstanding professional achievement.

The director of Admissions and Records will refer the student to an adviser appointed by the program director. The student will be notified to meet with the adviser to determine what conditions will be applied. Departments may specify additional course work beyond the degree requirements as conditions of admission to regular status. A statement of the conditions and a plan for meeting them will be filed by the director of Admissions and Records and the dean of the college/school and a copy provided to the student.

When the conditions are met, the director of admissions and records will notify the student that he/she has achieved regular degree-seeking status. Students on conditional status may count toward the degree a maximum of 12 hours of graduate course work taken in the degree program.

Non-Degree Status

The director of admissions and records will admit the student with non-degree status under the following conditions:

1) The student requests courses for professional development only.

2) The student's record shows that he/she does not meet the qualifications for admission to a degree program with conditional or regular status. In this case, with the approval of the program director, the director of admissions and records will notify the student of the deficiency, the procedure to follow to become qualified and the name of an adviser who can assist the student. The adviser will be sent a copy of the notification. Students applying for admission from non-regionally accredited institutions in the United States will be included in this category. A student with non-degree status who has completed 12 hours approved by an adviser with a 3.000 GPA or better at USC may petition the program director for a change to the regular degree-seeking status.

   Students admitted with non-degree status may take, with the instructor's permission, graduate courses for which they meet prerequisites. A maximum of 12 hours taken with non-degree status may be applied toward a degree, conditional upon the approval of the student's graduate committee.

Ineligible

Students who are denied admission to a graduate program will not be permitted to enroll in graduate courses.

Graduate Work Taken by Seniors

USC students who are in their senior year of undergraduate work, and who have an undergraduate grade-point average that meets the admissions requirements for the program, may take graduate courses for graduate credit with the approval of the appropriate program director and the director of admissions and records. Up to 12 graduate hours may be taken prior to graduation, but the combined undergraduate and graduate enrollment normally may not exceed 16 hours for a semester. **Graduate level courses (500 level) cannot be used simultaneously to satisfy baccalaureate and graduate degree requirements with the exception of approved joint-degree programs.**

CHANGE OF STATUS

The director of admissions and records will notify the student and the program director when the student has satisfied the conditions of admission and is changed to regular status.

GRADUATION REQUIREMENTS

Each graduate program at the university has specific graduation requirements which must be met prior to graduation. In addition, students must fulfill the following requirements for a graduate degree:

1) Have a cumulative graduate GPA of 3.000 or better at graduation. A maximum of six semester hours of course work at the grade of C may apply toward graduation. A minimum of 24 semester hours of credit in the approved degree plan must be earned at USC (21 semester hours for the MSANS program).

2) Have regular student status.

3) Complete the program's minimum number of hours of approved course work. The MBA and systems engineering programs require a minimum of 36 semester hours. The applied natural science program requires a minimum of 30-32 semester hours.

4) Pass a final comprehensive and/or oral examination in the major area of study, if required by the program.

5) Submit a graduation planning sheet signed by the student's graduate adviser during the semester prior to the semester in which graduation is to occur. The deadline for submission is published in the semester schedule of courses.

6) Complete a thesis or directed research project, if choosing the thesis option. Submit three approved copies of the thesis, one to the program director, one to the University Library, and one to the department.

7) May repeat thesis and directed research project courses beyond the minimum hours required by a degree program. Satisfactory progress will be indicated by the grade S. Enrollment for thesis or directed research credit is required for any academic term during which university resources (e.g., faculty time, computer use, library, etc.) are being used. A maximum of six semester hours of thesis or directed research course work will count toward meeting graduation requirements

ACCEPTANCE OF TRANSFER CREDIT

A maximum of nine (9) semester hours of resident graduate credit from other regionally accredited graduate institutions may be applied to a graduate degree program. Transfer credits must be directly applicable to the degree program and must be approved by the applicant's graduate committee and the director of admissions and records. Graduate credits accepted in transfer must not be from a correspondence course, must be from a course in which a grade of A or B was earned, and must be from an institution where the student maintained a graduate GPA of at least 3.000. Credits accepted in transfer do not apply to the GPA at USC.

GRADUATE ADVISING

Each graduate degree area has a program director appointed by the dean of the college, center, or school. The program director will serve as graduate adviser to all graduate students in the program, unless the dean of the college, center or school makes a different assignment. The adviser will assist in selecting a graduate committee for each student who chooses the thesis option. The graduate committee shall consist of at least two faculty members and is appointed by the dean of the college, center or school in consultation with the student and the program director. One member of the committee may be from outside the department of the student's graduate program. Changes in membership in the graduate committee may be requested by the student to the dean.

The responsibilities of the graduate adviser and the graduate committee include advisement, approval of the degree plan, approval of a thesis or directed research topic and final document (if appropriate), and administration and approval of comprehensive and/or oral examinations.

COURSE LOADS

Graduate students enrolled in nine (9) or more hours shall be considered as full-time students (six hours, summer); those enrolled for six (6) hours shall be considered as half-time students (three hours, summer).

TIME LIMITS

Courses completed six (6) or more years before the date of graduation, either at USC or at some other institution, will not be accepted as satisfying graduation requirements. Petitions for waiver of the six-year limitation may be submitted to the Office of Admissions and Records with the approval of the student's graduate adviser. Waivers will be approved only upon justification of unusual and extenuating circumstances and with the concurrence of the appropriate academic dean.

DEGREE PLAN

All degree-seeking graduate students are required to submit a degree plan, approved by all members of the graduate committee (if applicable) and program director, to the Office of Admissions and Records. The degree plan should be submitted no later than upon completion of 12 hours of study. A course taken, prior to having any given degree plan approved, is subject to review for suitability in the program. Changes in the degree plan must be approved by the graduate adviser and program director and submitted to the Office of Admissions and Records.

UNDERGRADUATE COURSES

Although undergraduate classes do not apply toward a graduate degree, students admitted to graduate study may be required to complete some undergraduate prerequisite courses in addition to their graduate work.

Courses taken for undergraduate credit by a graduate student do not enter into the graduate grade-point computation. A graduate program director may, however, stipulate a grade point to be achieved in such undergraduate courses.

Graduate programs may include courses which are dually numbered at the senior (400) and graduate (500) level. Students registered for graduate credit shall be required to perform at the graduate level. Dual-listed courses taken for undergraduate credit will not apply toward a graduate program. Graduate students may not repeat for graduate credit a dual-listed course which was taken in the undergraduate program.

DUAL DEGREE CREDIT

Students may receive dual credit for all common degree requirements in more than one graduate program if the degree plans are filed for both programs. In addition, up to six semester hours of elective credit may be applied to more than one graduate degree program pending approval of the graduate committee of the program involved and the Office of Admissions and Records.

ACADEMIC STANDARDS

Graduate courses are graded in an alphabetical system with the following interpretation:

A – Excellent performance
B – Good performance
C – Passing, but below expected performance
D – Unsatisfactory performance
F – Failing
IN – Incomplete, no credit awarded
S – Satisfactory
IP – In progress
U – Unsatisfactory
W – Withdrawal
WN – Withdrawal for nonpayment
NC – No credit

Students may apply no more than six semester hours of work with a grade of C toward graduation requirements. Only grades of A, B, C, and S fulfill graduation requirements for graduate programs. Graduate students may repeat a maximum of six semester hours of graduate credit. Courses in which a grade of C or better were earned may not be repeated and no course may be repeated more than once. When a course is repeated, both the subsequent grade and the original grade are included in the graduate grade point average.

To remain in good academic standing, a graduate student's GPA must remain at 3.000 or better. If the graduate GPA falls below 3.000, a graduate student will be placed on probation. Students have one semester to show progress toward good standing. Probationary students with 12 or more semester hours of graduate work will be dismissed whenever progress toward good standing is not demonstrated or whenever the graduate GPA falls below 2.500. A student may take up to six hours beyond the program requirements (including repeated credits) to improve the cumulative graduate GPA to the required minimum of 3.000 at time of graduation.

A student may appeal dismissal by submitting a written petition to his/her program director. This petition must provide a justification for continued registration. The program director shall forward a recommendation through the appropriate dean to the Office of the Provost. The provost or his designee shall make a decision on the appeal and inform the student of that decision. Decisions by the provost are final.

COMPREHENSIVE EXAMINATIONS

Graduate programs may require a final comprehensive and/or oral examination at the time of defense of the thesis or directed research project or at the completion of course work. Scheduling is made through the graduate adviser. Students who fail a final examination may retake the examination once. A re-examination cannot be scheduled in the same semester as the original examination.

THESIS OR DIRECTED RESEARCH

Each graduate program provides an option that includes a thesis or a directed research project. This option also requires an oral defense of the thesis or research project. Each student must submit a research plan. The plan must define the topic of study and outline the research design. The plan must have the written approval of all members of the student's graduate committee, the program director, and the appropriate dean.

The research plan should be filed as soon as possible after the degree plan is filed and before 18 credit hours of the student's degree plan have been completed.

DIRECTED RESEARCH REPORT

Graduate students whose degree plan calls for a directed research project are required to submit a report on that project to their graduate committee. Although the report need not be as formal as a thesis, it must, however, be typed in an acceptable format and must include a title page comparable to thesis format.

The report should include the purpose of the study or project, limitations, sources of data, the procedure used, and a summary section with conclusions. The research report must be approved by all members of the graduate committee and the appropriate dean. The final approved report must be submitted at least five (5) days prior to the anticipated date of graduation.

THESIS INSTRUCTIONS

Students who will be writing a thesis in partial fulfillment of graduation requirements must submit three (3) official copies of the approved thesis and four (4) copies of the thesis abstract to the university. The program director and the department will each retain one copy of the thesis and thesis abstract. The thesis and one copy of the thesis abstract shall be maintained in the University Library. The Office of Admissions and Records shall retain one copy of the thesis abstract.

The thesis or directed research must:

1) contain a certificate of acceptance;

2) contain a title page;

3) conform to the style and form approved by the major department and outlined in the thesis plan;

4) be printed on high-quality paper with a minimum of 25 percent rag content;

5) contain no erasures; and

6) be bound.

The university duplicated copies of the thesis must be of high-quality printing and must use a paper of the same quality as the original. Other copies of the thesis may be duplicated in any manner the student desires.

It is imperative that the utmost care be taken in the preparation of the final copy of the thesis. The completion of the thesis, including typing and duplication, is the sole responsibility of the student.

The thesis abstract should consist of no more than five hundred (500) words and should include a title page. The thesis abstract should cover the following items:

1) purpose of study;

2) research materials and methods results; and

3) summary and conclusions.

The approved thesis and thesis abstract must be submitted to the registrar at least five (5) days prior to commencement.

ORAL DEFENSE OF RESEARCH

Upon completion of a master's thesis or directed research project, an oral defense/final comprehensive examination must be scheduled. Application for the oral defense is made to the graduate adviser.

A report of the outcome of the oral defense must be filed with the Office of the Provost. The report must be signed by all members of the Graduate Committee. Students must pass the oral defense to complete their thesis or directed research requirement successfully.

APPEALS

All graduate policies, procedures, and regulations may be appealed. Appeals must be made in writing to the Office of the Provost.

PROGRAMS OF STUDY

APPLIED NATURAL SCIENCE (MS)

The graduate program leading to the degree of master of science in applied natural science prepares students to apply basic scientific disciplines to the practical problems encountered in business, industry, government, and education. Graduates from the program will be able to apply the techniques of scientific research to real-world problems.

Course work emphasizes several important areas of applied natural science, including biotechnology, polymer chemistry, industrial chemistry, mathematical techniques in applied research, environmental concerns, scientific information systems and instrumentation. A unique feature of the program is its 3+2 plan.

The master of science in applied natural science requires 30 or 32 semester credit hours of approved graduate course work in either the thesis or non-thesis option. The program offers three emphasis areas – applied biological sciences, applied chemical sciences, and applied biochemical sciences and applied mathematical sciences.

Degree Requirements

The course of study requires four semester credits of work common to all students. Each student must select an emphasis area with a core of seven semester credits. Thirteen or twenty-one credits in elective courses are also required, depending on which option is chosen. The thesis option requires successful completion of six semester credits of thesis research (BIOL 599 or CHEM 599) and an approved thesis. The program of study for each student must be approved by a college committee.

Thesis option students are required to defend their research results before a thesis defense committee. Non-thesis option students must take a written comprehensive examination over courses taken in their program of study. A non-thesis option student must submit written evidence of her or his ability to understand and critique scientific literature.

Program requirements are summarized as follows:

	Plan A (thesis option)	**Plan B** (non-thesis option)
	6	6
ANS 510 ANS 593 (X2) MATH 550		
Emphasis Core Courses (Biological emphasis OR Chemical emphasis OR Biochemical emphasis OR Mathematical Sciences emphasis)	7-12	7-12
Thesis research	6	–
Graduate Internship	–	4
Elective courses	5-10	9-14
TOTAL	30 min.	32 min.

Specific course numbers, course titles, and credit hours for all core requirements, emphasis core requirements, and electives are cited as follows:

Required General Courses

ANS	510	Scientific Information Systems	1
ANS	593	Seminar (taken twice)	2
MATH	550	Statistical Methods	3
		TOTAL	6

Required Courses for Each Emphasis

Biological Sciences Emphasis Core

ANS	510	Health and Safety in the Lab	1
BIOL	540/L	Molecular Genetics/Lab	3
BIOL	552/L	Theory & Appl of Electron Microscopy	4
		TOTAL	8

Chemical Sciences Emphasis Core

ANS	510	Health and Safety in the Lab	1
CHEM	503	Polymer Chemistry	3
CHEM	529	Advanced Instrumentation	2
CHEM	550	Industrial Chemistry	2
		TOTAL	8

Biochemical Sciences Emphasis Core

ANS	510	Health and Safety in the Lab	1
BIOL	540/L	Molecular Genetics/Lab	3
CHEM	512/L	Biochemistry II/Lab	5
		TOTAL	8

Mathematical Sciences Emphasis Core

MATH	521	Intermediate Analysis	3
MATH	527	Abstract Algebra	3
MATH	541	Computers (Mathematica, etc)	3
MATH	544	Mathematical Methods of Applied Science (Optimization and Modeling)	3
		TOTAL	12

Additional courses required for the Mathematical Science Emphasis:

For thesis option:

Any 500 Level courses 2

For non-thesis option:

Any 500 Level courses 3

MATH 530 Advanced Geometry 3

Elective Courses

A minimum of 13 (Plan A - thesis option) or (Plan B - non-thesis option credit hours must be selected from courses listed below:

Courses		Titles	Credits
ANS	510	Scientific Information Systems	1
ANS	520	Health and Safety in the Lab	1
ANS	593	Graduate Seminar	2
BIOL	512/L	Cellular Biology/Lab	4
BIOL	521/L	Histology/Lab	4
BIOL	526/L	Plant Morphology/Lab	3
BIOL	532/L	Embryology/Lab	4
BIOL	540/L	Molecular Genetics/Lab	3
BIOL	541/L	Freshwater Invertebrate Zoology/ Lab	4
BIOL	543/L	Limnology/Lab	4
BIOL	552/L	Theory and Application of Electron Microscopy/Lab	4
BIOL	572/L	Radiation Biology/Lab	4
BIOL	549/ 579L	Ichthyology/Lab	3
BIOL	581/L	Entomology/Lab	3
BIOL	582/L	Parasitology/Lab	3
BIOL	583/L	Mammalogy/Lab	3
BIOL	584/L	Ornithology/Lab	3
BIOL	585/L	Plant Taxonomy/Lab	4
BIOL	589	Medical and Veterinary Entomology	3
BIOL	591	Special Topics	1-4
BIOL	595	Independent Study	1-4
BIOL	598	Graduate Non-Thesis Internship	1-4
BIOL	599	Thesis Research	1-6
CHEM	501/L	Advanced Organic Chemistry/Lab	4
CHEM	503	Polymer Chemistry	3
CHEM	511	Biochemistry I	3
CHEM	512/L	Biochemistry II/Lab	4
CHEM	519/L	Instrumental Analysis/Lab	4
CHEM	521	Advanced Inorganic Chemistry	3
CHEM	525	Environmental Chemistry	3
CHEM	529	Advanced Instrumentation	2
CHEM	531	Radiochemistry	2
CHEM	550	Industrial Chemistry	2
CHEM	591	Special Topics	1-4
CHEM	595	Independent Study	1-4
CHEM	598	Graduate Non-Thesis Internship	1-4
CHEM	599	Thesis Research	1-6
MATH	521	Intermediate Analysis	3
MATH	527	Abstract Algebra	3
MATH	530	Advanced Geometry	3
MATH	541	Computers	3
MATH	544	Mathematical Methods of Applied Science	3

MATH	550	Statistical Methods	3
MATH	591	Special Topics	3
MATH	595	Independent Study	1-4
MATH	598	Graduate Non-Thesis Internship	1-4
MATH	599	Thesis Research	1-6

APPLIED NATURAL SCIENCE (MSANS) 3+2 PLAN

A unique and distinct feature of our MSANS program is the 3+2 plan. The main goal of the 3+2 plan is to give the opportunity to qualified advanced-level undergraduate students to simultaneously pursue both the baccalaureate (BS) and the master of science (MS) degrees. Talented students are thus quickly moved toward expanding their academic and scientific horizons based on the student's abilities and personal motivation.

Students in the 3+2 plan are expected to successfully complete both the BS and MS degrees by the end of their fifth year in college; thus, they must have applied and been admitted into the MSANS program by the Spring semester of their junior year or the Fall semester of the senior year. Students applying to the 3+2 plan must have a minimum 3.0 overall GPA and a minimum 3.25 GPA in their subject emphasis area (biology, biochemistry, chemistry, or mathematics – see below).

The application file for admission to the 3+2 plan must include:

1. the completed application form;
2. the USC transcript;
3. two letters of recommendation from USC faculty; and
4. GRE scores (students may be admitted into the 3+2 plan before taking the GRE, but they must submit the GRE scores by the end of their first year into the 3+2 MSANS program plan to remain in the program).

Before they are admitted to the 3+2 plan, students are expected to have completed the following course work depending on the respective emphasis areas:

Biology emphasis area:

Courses		Titles
BIOL	301/L	General Microbiology + Lab
BIOL	351/L	Genetics + Lab
CHEM	122/L	General Chemistry II + Lab
PHYS	202/L	Principles of Physics II + Lab
MATH	221	Applied Calculus
		OR
MATH	156	Statistics

Biochemistry or Chemistry emphasis area:

Courses		Titles
CHEM	121/L	General Chemistry I + Lab
CHEM	122/L	General Chemistry II + Lab
CHEM	301/L	Organic Chemistry I + Lab
CHEM	302/L	Organic Chemistry II + Lab
CHEM	221/L	Inorganic Chemistry + Lab
		OR
CHEM	421/ 521	Advanced Inorganic Chemistry
PHYS	221/L	General Physics I + Lab
PHYS	222/L	General Physics II + Lab
MATH	224	Calculus and Analytical Geometry II
CIS	102	Programming w/Basic
		OR
CIS	121	Introduction to C++ Programming
		OR
EN	105	Fortran

Mathematics emphasis area:

Courses		Titles
MATH	307	Introduction to Linear Algebra
MATH	327	Introduction to Algebraic Systems
MATH	421	Advanced Calculus

The core course requirements and all other requirements for the 3+2 plan are the same as for the regular MSANS program plan. Dual listed courses taken by the 3+2 plan students as 400 level courses may be acceptable as electives to meet the minimum program course load requirements, with the permission of the specific course instructor. Like students in the regular MSANS program plan, students admitted under the 3+2 plan may choose either the thesis or non-thesis program option.

MASTER OF BUSINESS ADMINISTRATION (MBA)

The goal of the University of Southern Colorado's MBA program is to prepare students for high-level general management careers in business and other organizations. To this end, students acquire knowledge of management operations, an appreciation of the interrelationships involved, an understanding of the economic, political and social environment in which businesses function, and behavioral skills that are essential in the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative and effective manner. The program makes extensive use of lectures, seminars, group projects, case studies and independent research.

The program is open to all applicants with a bachelor's degree, regardless of the undergraduate field of study, who can demonstrate, through academic or experiential preparation, an appropriate background in the key areas of accounting, economics, finance, quantitative methods, management, and marketing. Students without this background will be required to complete some leveling requirements.

All MBA students are required to take the Graduate Management Admissions Test (GMAT). An admission formula of 200 times the undergraduate GPA (4.000 system) plus the GMAT score will constitute a scaled admission score for each applicant. Regular admission will be given to those students who have an undergraduate GPA of at least 3.000 and have a GMAT score of at least 450. Conditional admission may be granted to students with GPAs between 2.500 and 3.000. Conditionally admitted students must achieve an index of at least 1000 (with a GMAT of at least 400) before the second semester of course work begins. Students who fail to meet these admissions requirements may provide additional evidence of their ability to complete the program. Such evidence may include: performance in outside activities, evidence of creativity or leadership, and a record of accomplishment.

Leveling requirements may be required of students in either regular or conditional status. Students completing leveling courses must achieve a minimum GPA of 3.000. Students who earn less than a "C" in any leveling course will be dismissed from the program. Graduate students are required to complete all leveling course requirements and have an official GMAT score on file before enrolling in the first 500 level course. In some instances, a student will be permitted to enroll in 500 level courses while completing the final leveling courses.

The Hasan School of Business offers a test-out course waiver for some leveling requirements. The Hasan School of Business does not offer credit for life experiences.

The MBA degree will be conferred upon students who successfully complete a minimum of 36 hours of approved course work. The curriculum is composed of two options with 27 semester hours of required core courses that are taken by all candidates. Option one requires an international course and six semester hours of approved graduate electives in the Hasan School of Business. Option two requires six semester hours of coursework with directed research and three semester hours of approved graduate electives.

Core Courses		Titles	Credits
ACCTG	510	Managerial Accounting	3
BUSAD	502	Business Ethics and Environment	3
ECON	510	Economics for Managers	3
FIN	530	Financial Management	3
MGMT	511	Production/Operations Mgmt	3
MGMT	520	Management of Organizational Behavior	3
MGMT	565	Management Information Systems	3
MGMT	585	Management Policy and Strategy	3
MKTG	540	Marketing Management Strategies	3
		TOTAL	27

Requirements for Option I

Select One: BUSAD 575, FIN 575, MGMT 575 or MKTG 575	3
Approved Electives	6
TOTAL	9

Requirements for Option II

BUSAD	592	Directed Research	6
Approved Electives			3
		TOTAL	9

All graduate courses for the MBA are listed in the appropriate department sections of accounting (ACCTG), business administration (BUSAD), economics (ECON), finance (FIN), management (MGMT), and marketing (MKTG).

JOINT BSBA/MBA PROGRAMS

Specific requirements for the joint BSBA/MBA plans are included in the joint BSBA/MBA plan description of the Hasan School of Business, undergraduate-programs section of this catalog.

MASTERS IN EDUCATION AND HUMAN RESOURCE DEVELOPMENT

The University of Southern Colorado works with Colorado State University to offer a masters degree (M.Ed.) in Education and Human Resource Studies with specialization in Educational Leadership. The program is offered on the USC campus and prepares individuals for instructional; leadership positions including school principals and local directors of vocational programs. The Educational Leadership program consists of 36 semester hours of course work and site-based internships. The students admitted to the program form a cohort and proceed through the program as a group from beginning to end.

Applicants must have a bachelor degree from an accredited institution and leadership potential. Candidates for the principal's license must have three years of teaching experience. Individuals planning to qualify for a local director's vocational credential must hold a vocational credential and have appropriate work experience.

MASTER OF SOCIAL WORK (MSW)

The University of Southern Colorado and Colorado State University cooperate to offer the MSW in a three-year part-time program. Courses equivalent to the first year of the MSW are provided over a two-year period. The program specialization is directed toward advanced generalist practice with a focus on transitional and under-served communities. The program prepares social workers for autonomous independent practice in a variety of settings. Course work at USC is offered part-time in the evenings.

Students normally take six credit hours per semester for four semesters (two years). The third year of the program is full-time, with a block placement in the southern part of the state. Students go to CSU for intensive course work over the two semesters approximately four days per month. The field placement phase requires approximately 20 hours per week in agency and community placement. Three calendar years, which include approximately 60 credit hours of course work, are required for completion of the program.

Applications are accepted once a year in the spring for classes beginning the following fall. The program is fully accredited by the Council on Social Work Education (CSWE) and has WICHE (Western Interstate Commission for Higher Education) designation.

Applicants with a degree in social work from a baccalaureate social work program accredited by CSWE are eligible to test out of foundation courses on a course-by-course basis. Those interested may apply to the University of Southern Colorado.

CSU/USC ALTERNATIVE MSW PROGRAM

The Curriculum

First Year (Foundation)
Fall

Courses	Titles	Credits
SW 501	Principles & Philosophy of SW	3
SW 510	Theoretical Analysis of Small Client Systems	3

Spring

SW 511	Generalist Practice-Small Client Systems	3
SW 512	Small Client Systems Skills Lab	1
SW 610	Theoretical Analysis of Large Client Systems	3

Summer

SW 588	Field Placement	5
SW 581	Seminar	1

Second Year (Foundation)
Fall

Courses	Titles	Credits
SW 600	Methods of Research I	3
SW 611	Generalist Practice- Large Client System	3

Spring

SW 520	Social Welfare Policy Analysis	3
SW 601	Methods of Research II	3

Third Year (Concentration- classes on campus at CSU)

INDUSTRIAL AND SYSTEMS ENGINEERING (MS)

Industrial and systems engineering deals with the design and analysis of complex, human/machine systems. Industrial systems engineers, with the "big picture" or systems viewpoint, serve as management and operations analysts, focusing on the people, materials, equipment and procedures needed for the most efficient and effective systems performance. Industrial and systems engineers analyze and evaluate systems against specified performance criteria, such as quality, before new systems are created or old ones are modified.

Industrial and systems engineering techniques can be applied in manufacturing and service industries, health care systems, governmental agencies and non-profit organizations.

The master of science in industrial and systems engineering degree program at the University of Southern Colorado provides students with practical knowledge in areas such as facilities planning, operations planning and control, economic and decision analysis, and project management. Methodologies employed by industrial and systems engineers include probability and statistics, mathematical programming, computer simulation, and human performance studies.

Degree Requirements

The master of science in industrial and systems engineering degree program consists of 30 semester hours of required core courses and six semester hours of elective courses or thesis hours, for a total of 36 semester hours minimum. No more than two 400-level courses may be counted for graduate credit. Courses from the approved set of electives may be substituted, if approved, for required courses for which a student can demonstrate mastery as a result of previous course work.

Admission Requirements

The program is open to applicants with a quantitatively based baccalaureate degree from regionally accredited colleges or universities. Admission to the industrial and systems engineering program requires prior admission to graduate studies.

Regulations governing graduate studies are contained in the Graduate Policies and Procedures Guide, available from the Office of Admissions and Records.

Prerequisite Requirements

Students will be required to demonstrate preparation for graduate study in industrial and systems engineering by completing prerequisite background courses in engineering, computer programming, and mathematics, or by documenting previous equivalent course or experiential work. Students who do not possess the specified prerequisite background may be admitted conditionally but will be required to complete prescribed prerequisites. Courses used as prerequisites for required graduate courses must be taken for credit.

Prerequisites: (USC Course Equivalents)

Computer Programming (EN 101 or CIS 121)
Engineering Economy (EN 343)
Stochastic Systems Engineering (EN 465)

Additional mathematics courses may be required before taking EN 465. In some cases, MATH 350 may be acceptable for EN 465.

Required Courses

Courses		Titles	Credits
EN	503	Ergonomics	3
EN	504	Scheduling and Sequencing	3
EN	520	Simulation and Stochastic Processes	4
EN	530	Project Planning & Control	2
EN	540	Advanced Engineering Economics	3
EN	571	Operations Research	4
EN	575	Facilities Planning and Design	3
EN	577	Operations Planning & Control	3
EN	591	Special Topics	3
EN	593	Graduate Seminar	2
Thesis Research or Elective Courses			6
		Total Semester Hours	36

Elective Courses

Courses (approval required)			Credits
ACCTG	510	Managerial Accounting	3
ECON	510	Managerial Economics	3
EN	440	Safety Engineering	3
EN	443	Quality Control and Reliability	3
EN	473	Computer Integrated Manufacturing	3
EN	500	Logistics, Maintainability and Life-Cycle Support	3
EN	501	Software Systems Engineering	3
EN	556	Design of Experiments	3**
EN	565	Stochastic Systems Engineering	3
EN	588	Graduate Design Projects	3**
EN	590	Special Projects	(1-3 var)
EN	599	Thesis Research	(1-6 var)
MATH	521	Intermediate Analysis	3
MATH	541	Computers	3
MATH	544	Mathematical Methods of Applied Science	3
MGMT	560	Management Information Systems	3

**Offered in summer, these electives, either or both, are required for those students who choose to attend summer school provided that the student has had the required prerequisites. If found ineligible to take either or both of these courses, a student may take other electives for which he or she is eligible.

Graduate Assistantships

Full-time students admitted to the program with regular status are eligible to apply for graduate assistantships. Graduate assistants may get additional assistance to pay in-state tuition and fees. Full-time assistantships require students to work an average of 20 hours per week and carry a stipend of $8,300 for the academic year. Half-time assistantships require students to work an average of 10 hours per week and carry a stipend of $4,150 for the academic year. Assistantships are renewable for a second academic year provided students perform satisfactorily in assistantship assignments, remain in good academic standing, and make satisfactory progress toward completion of their degree programs. An application for assistantship consists of a letter of interest and résumé, addressed to the department chair. The deadline for applications is April 1 for the following academic year.

COLLEGE OF EDUCATION ENGINEERING AND PROFESSIONAL STUDIES

Dr. Hector Carrasco, Dean

Academic Departments

Automotive Parts and Service Management and Facilities Management and Technology Studies

Majors: Automotive Parts & Service Management (BS)
Facilities Mgmt. and Technology Studies (BS)
Facilities Management Option
Facilities Technology Option

Minors: Automotive Parts & Service Management
Facilities Mgmt. and Technology Studies

Computer Information Systems

Major: Computer Information Systems (BS)

Minor: Computer Information Systems

Engineering

Majors: Industrial Engineering (BSIEN)
Industrial and Systems Engineering (MS)

Minor: Industrial Engineering

Engineering Technology

Majors: Civil Engineering Technology (BSCET)
Electronics Engineering Technology (BSEET)
Mechanical Engineering Technology (BSMET)

Exercise Science, Health Promotion, and Recreation

Majors: Exercise Science and Health Promotion (BS)
Athletic Training Option
Health Promotion/ Wellness Option
K-12 Physical Education Teacher Preparation Option
Recreation (BS)
Outdoor Adventure Leadership Option
Community/Commercial Recreation Option

Minors: Coaching
Exercise Science
Recreation

Nursing

Major: Nursing (BSN)

Speech Communication

Major: Speech Communication
Communication Disorders Emphasis (BS)
General Speech Emphasis (BA)

Minor: Speech Communication

Teacher Education

Licensure Areas: Elementary
Secondary
K-12

Minor: Education
Reading

Mission

The College of Education, Engineering, and Professional Studies degree programs reflect the University of Southern Colorado's polytechnic emphasis and are designed to prepare graduates for professional positions in industry, education, business, and governmental agencies.

The mission of the College is to offer a career-oriented education that efficiently and effectively prepares students to excel as professionals.

Mission objectives:

- To be the premier educational institution in Southern Colorado that provides professional programs.
- To be the preferred source in Southern Colorado for consulting services, research effort, service learning, and other linkages to the public schools, industry, and the community.
- To be recognized for effectiveness in the professional development of faculty, staff, and students.

The College embraces the model of continuous improvement through the use of assessment in evaluating and improving student learning.

DEPARTMENT OF AUTOMOTIVE PARTS AND SERVICE MANAGEMENT AND FACILITIES MANAGEMENT AND TECHNOLOGY STUDIES

Department Chair: Ronald Darby

AUTOMOTIVE PARTS AND SERVICE MANAGEMENT PROGRAM

Faculty: Darby, Robbe, Sefcovic,

The major in automotive parts and service management leads to a bachelor of science (BS) degree and is designed to prepare its students with comprehensive management skills, supported by the business and technical background necessary to succeed in the automotive parts and service industries. The curriculum emphasizes personnel supervision, financial analysis, customer relations, warranty administration, sales promotions, techniques of technical problem-solving, service management, marketing, merchandising and distribution methods used by the automotive aftermarket, automotive manufacturer and import industries.

Program Goals

- Prepare students with the appropriate knowledge and skills to enter the workforce as productive, accountable and responsible employees.
- To provide students with theoretical and hands-on laboratory experiences designed to develop the knowledge and skills for success in automotive management careers.
- To utilize an advisory committee of automotive business leaders to advise and support the APSM program on a range of issues, which includes keeping the curriculum current with industry needs.

Expected Student Outcomes

Upon successful completion of the APSM curriculum, the graduate should:

- Possess technical knowledge and understanding of various automotive systems-engines, suspension and brakes, power trains and drive lines, fuel and emissions, electrical and electronic...
- Possess knowledge and understanding of the operation and management of the automotive parts business—*financial* systems, computerized management and inventory control systems, customer relations, environmental regulations...
- Possess knowledge and understanding of general business operations—courses taken within the Hasan School of Business that comprise a minor in Business Administration, plus additional selected courses.

General Requirements for the APSM Program

- APSM majors are required to complete an approved curriculum with a minimum grade of C earned in all major courses.
- APSM majors are required to demonstrate intellectual skills and knowledge in related business courses to satisfy the minor and institutional requirements.
- APSM minors are required to complete the approved curriculum with a minimum grade of C earned in all minor courses.

Specific Requirements for the APSM Major

APSM Courses		Titles	Credits
APSM	105	Intro to the Parts & Serv Indus..	1
APSM	115	Automotive Engine Design & Operation	5
APSM	125/L	Automotive Susp & Brake Systems/Lab	4
APSM	155	Automotive Parts Operations	4
APSM	165/L	Automotive Power Trains & Dr Lines/Lab	4
APSM	235/L	Automotive Fuel Systems & Exhaust/Lab	4
APSM	245/L	Automotive Electrical Systems I/Lab	4
APSM	255/L	Automotive Electrical Systems II/Lab	4
APSM	265	Automotive Parts Management Systems	4
APSM	305	Automotive Customer Service Regulatory Issues	3
APSM	325	Fuels & Lube Production, Mktg & Conservation	3
APSM	335	Automotive Shop Practices	5
APSM	345	Advanced Automotive Systems	5
APSM	405	Personal Selling Methods & Techniques	4
APSM	425	Automotive Financial Mgmt	5
		TOTAL	59

Other Required Courses

ACCTG	201	Principle of Financial Accounting	3
ACCTG	202	Principles of Managerial Acctg	3
BUSAD	302	Ethical Issues	3
PHYS	201/L	Principles of Physics I/Lab	4
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
FIN	330	Corporate Financial Management	3
MGMT	201	Principles of Management	3
MGMT	311	Operations and Quality Management	3
MGMT	318	Personnel Management	3
MKTG	340	Principles of Marketing	3
MATH	156	Intro to Statistics	3
		TOTAL	37

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual program's curriculum sheet.

Specific Requirements for the APSM Minor

APSM	115	Automotive Engine Design & Operation	5
APSM	235/L	Automotive Fuel Systems and Exhaust Emissions Systems Lab	4
APSM	245/L	Automotive Electrical Systems I/Lab	4
Approved APSM Electives (min)			7
		TOTAL	20

Outcomes Assessment Activities

- The program will keep a portfolio for each APSM major and minor containing a record of achievement, showing improvement in intellectual skills, knowledge and capacities between entrance and graduation.
- Required courses are monitored to assure that quality of content and delivery is maintained to a high standard.
- A National Advisory Committee meets to assess and offer advice to the program faculty and students regarding the quality of the APSM program.
- Enrollment and retention are monitored as a gauge of program effectiveness.
- Graduate placement within the area of study is monitored.

FACILITIES MANAGEMENT AND TECHNOLOGY STUDIES

Program Coordinator: Michael Hoots
Faculty: Hoots

The major in Facilities Management and Technology Studies (FMTS) leads to a bachelor of science (BS) degree. The program has two options.

Option 1: Facilities Management

This option prepares students to serve in administration and supervisory positions. Graduates will be prepared to plan, program, and supervise operation, maintenance, and construction in major physical facilities, such as schools, industrial plants, malls, resorts/casinos, sports and hotel/motel complexes, hospitals, office buildings, etc.

Option 2: Facilities Technology

This option prepares students to serve in technical positions related to traditionally non-managerial facilities operations. Graduates will be prepared to apply general, facilities technology skills from the FMTS core curriculum as well as specific, technological skills gained from a degree and/or course work from an approved, transferable institution. These specialized skills may include fields such as occupational safety and health, architecture, building and grounds maintenance, construction, environmental technology, building systems and other areas related to facilities operations.

Program Goals

- To graduate students who possess career oriented knowledge and skills necessary to become productive, accountable, and responsible managers, administrators and technicians upon entering the work force.
- To provide students a total quality learning experience utilizing the best faculty, facilities, equipment and material possible.
- To continuously insure that curriculums are rigorous, relevant and current with industry needs.

The Facilities Management graduate will:

- be able to supervise facilities operations, maintenance, design and construction;
- understand and have working knowledge of commercial real estate;
- have knowledge and appreciation of human and environmental factors;
- be able to do planning and project management;
- analyze and solve problems relative to facilities functions;
- understand the procedures and processes of corporate finance;
- be able to develop and manage a quality assessment and innovation program; and
- communicate and do critical thinking and problem-solving in industrial science;
- be able to successfully acquire and utilize knowledge management systems.

The Facilities Technology graduate will:

- be able to perform the same operational tasks as the facilities management graduate without the managerial and supervisory components.

General Requirements for the FMTS Program

- Graduates of this program are required to complete an approved curriculum with a cumulative GPA of 2.000 or better.
- Students in the minor are required to complete the approved curriculum with a minimum grade of C earned in all minor courses.

Specific Requirements for the FMTS Major Facilities Management Option

FACILITIES COMPONENT REQUIREMENTS

Courses		Titles	Credits
CET	115	Civil Drafting I	3
CET	304	Construction Cost Estimating I	3
CET	313	Architectural Drafting I	3
CET	314	Architectural Drafting II	3
EN	440	Safety Engineering	3
FMTS	103	Introduction to Facilities Mgmt. & Technology Studies	2
FMTS	140	Office & Furniture Design	3
FMTS	206	Commercial & Residential Construction	3
FMTS	230	Environmental Issues in Facilities	3
FMTS	306	Building Mechanical Systems	3
FMTS	309	Building Electrical Systems	3
FMTS	341	Facilities Planning and Layout	3
FMTS	350	Facilities Management: Administration	3
FMTS	351	Facilities Management Operations	3
FMTS	431	The Facilities Supervisor	3
FMTS	442	Computer Aided Facility Mgmt	3
FMTS	493	Seminar (1-5 var)	3
FMTS	496	Cooperative Education Internship (1-5 var)	3
Approved Facilities Management Electives			5
		TOTAL	58

BUSINESS MANAGEMENT EMPHASIS REQUIREMENTS

Courses		Titles	Credits
ACCTG	201	Principles of Financial Accounting	3
ACCTG	202	Principles of Managerial Acctg	3
BUSAD	302	Ethical Issues & the Legal Environment of Business	3
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
FIN	330	Finance Concepts	3
MATH	156	Introduction to Statistics	3
MGMT	201	Principles of Management	3
MGMT	311	Operations & Quality Mgmt	3
MGMT	368	Project Management	3
		TOTAL	30

GENERAL EDUCATION REQUIREMENTS

Courses		Titles	Credits
BIOL	121	Environmental Conservation	3
CHEM	101/L	Chemistry and Society	4
CIS	110	PC Productivity & the Internet	3
ECON	201	Principles of Macroeconomics	3
MATH	121	College Algebra	4
PSYCH	100	General Psychology	3
Other General Education Electives.			15
		TOTAL	35

Specific Requirements for the FMTS Major Facilities Technology Option

FACILITIES COMPONENT REQUIREMENTS

Courses		Titles	Credits
CET	115	Civil Drafting I	3
CET	304	Construction Cost Estimating I	3
CET	313	Architectural Drafting I	3
CET	314	Architectural Drafting II	3
EN	440	Safety Engineering	3
FMTS	103	Intro to Facilities Management & Technology Studies	2
FMTS	140	Office & Furniture Design	3
FMTS	206	Commercial & Residential Construction	3
FMTS	230	Environmental Issues in Facilities	3
FMTS	306	Building Mechanical Systems	3
FMTS	309	Building Electrical Systems	3
FMTS	341	Facilities Planning and Layout	3
FMTS	350	Facilities Management Administration	3
FMTS	351	Facilities Management Operations	3
FMTS	431	The Facilities Supervisor	3
FMTS	442	Computer Aided Facility Management	3
FMTS	493	Seminar (1-5 var)	3
FMTS	496	Cooperative Education Internship (1-5 var)	3
Approved Facilities Technology Electives			5
		TOTAL	58

FACILITIES TRANSFER REQUIREMENTS

Not less than 27 credit hours from an approved in-state institution with a transferable, technology program, core curriculum directly related to facilities operations	27
TOTAL	27

Specific Requirements for the FMTS Minor

FMTS Courses		Titles	Credits
FMTS	140	Office and Furniture Design	3
FMTS	206	Commercial and Residential Construction	3
FMTS	230	Environmental Issues in Facilities	3
FMTS	306	Building Mechanical Systems	3
FMTS	309	Building Electrical Systems	3
FMTS	350	Facilities Management: Admin	3
FMTS	351	Facilities Management: Opns	3
		TOTAL	21

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to each individual option's curriculum sheet.

Co-curricular Requirements

In all options, the faculty support and encourage students to engage in co-curricular experiences that complement and reinforce the curricular experiences including participation in student organizations, clubs, employment or other activities related to these options.

Outcomes Assessment Activities

Students enrolled in the baccalaureate degree programs of the program are expected to meet the following requirements:

1) Students are required to develop and maintain a portfolio containing a record of achievement showing improvement in intellectual skills, knowledge and capacities between entrance and graduation. During the semester of graduation, the faculty shall evaluate each graduate portfolio. The program will keep a copy of each portfolio on file to be used as a summarization assessment to assist in program evaluation.

2) In addition to the portfolio, survey information from both the graduate and his/her employer will be collected during the first, third and fifth year following graduation.

COMPUTER INFORMATION SYSTEMS DEPARTMENT

Department Chair: John Borton

Faculty: Borton, Chandler, Huff, Huff, Knight, Lassila, Seitz, Spencer, Voss

The major in computer information systems leads to a bachelor of science (BS) degree designed to provide students with the technical and administrative skills necessary to develop and integrate computer applications in a business environment. Students complete a curriculum which provides them with marketable skills in application programming, system analysis and design, local area network (LAN) concepts and administration, database administration, web development, PC operating systems, applications and architecture.

Program Goals

- To prepare students with the appropriate computer- related knowledge and skills necessary to become productive, accountable, and responsible employees upon entering the work force.
- To provide students with a comprehensive theoretical foundation bolstered by hands-on laboratory experiences.
- To utilize the computer information systems professional advisory committee to advise faculty of the currency of the curriculum based on relevant industry needs.

Expected Student Outcomes

- Demonstrate mastery of the skills necessary to design and code application programs using C++, Visual Basic, and other programming languages.
- Possess a thorough understanding of the information systems analysis and design process as it applies to the development and implementation of computing applications in a business environment.
- Demonstrate skills in database design and administration.
- Have a basic knowledge of local area network (LAN) concepts and administration.
- Possess hardware and software skills necessary to configure and support PC-based computing operations.
- Demonstrate proficiency in an academic field outside the major which supports the student's career interests in the computer information systems discipline.
- Develop oral and written communications skills necessary to convey technical information in a business environment.

General Requirements for the CIS Program

- Students majoring in computer information systems must maintain grades of C or higher in all CIS courses and other required related courses.
- Students must complete at least 120 semester hours in an approved program of study, including 48 hours in the major.
- Students must complete a minimum of 21 credits of CIS upper-division course work. At least 75 percent of CIS upper-division credits must be taken in residence.
- Students must complete a course planning worksheet and participate in the advisement process with a member of the CIS faculty.

Specific Requirements for the CIS Major

CIS Courses		Titles	Credits
CIS	111	Introduction to Programming & Design (w/Visual Basic)	4
CIS	121	Introduction to C++ Programming	4
CIS	150	Computer Information Systems	3
CIS	215	UNIX Operating System	3
CIS	240	Systems Analysis and Design	3
CIS	253	Advanced C++ Programming	3
CIS	311	Introduction to Web Development	3
CIS	350	Data Base Systems	3
CIS	385	PC Architecture	3
CIS	389	Network Concepts	3
CIS	432	Senior Professional Project	6
CIS	493	Seminar	1
CIS Electives			9
		TOTAL	48

CIS electives may be selected from the following list of courses:

CIS Courses		Titles	Credits
CIS	316	Operating Systems Design	3
CIS	357	JAVA Programming	3
CIS	401	Network Systems Admin	3
CIS	403	Advanced Visual Programming	3
CIS	411	Internet Server-Side Programming	4
CIS	420	Knowledge Based Systems	3
CIS	450	Database Systems II	3
CIS	460	Enterprise Networking	3
CIS	490	Special Projects	1-5
CIS	491	Special Topics	1-5
CIS	496	Cooperative Education	1-5

Required Related Courses

ENG	305	Tech and Scientific Report Writing	3
MGMT	201	Principles of Management	3
MATH	121	College Algebra	4

Select one of the following:

MATH	126	Calculus and Analytic Geometry I	
		OR	
MATH	156	Introduction to Statistics	
		OR	
MATH	220	Quantitative Analysis for Business	
		OR	
PHIL	205	Deductive Logic	3-5

Select one of the following:

ACCTG	201	Principles of Financial Accounting	
		OR	
MGMT	318	Human Resource Management	
		OR	
MGMT	375	Management Science	
		OR	
MGMT	468	Total Quality Management	3-4

Institutional and General Education

Please refer to the General Education Requirements in the *Undergraduate Programs* section of this catalog or refer to your individual program's curriculum sheet.

CIS MINOR

The CIS minor consists of four core courses and five separate tracks which students may select from depending upon individual interests. Students must complete a minimum of six credits of upper-division CIS courses.

CIS Minor Core

CIS Courses		Titles	Credits
CIS	111	Intro to Programming & Design	4
CIS	121	Intro to C++ Programming	4
CIS	150	Computer Information Systems	3
CIS	240	Systems Analysis & Design	3
		SUB-TOTAL	14

Personal Computers/Local Area Network Support

CIS Courses		Titles	Credits
CIS Minor Core			14
CIS	385	PC Architecture	3
CIS	389	LAN Concepts	3
		TOTAL	20

Information Analyst

CIS Courses		Titles	Credits
CIS Minor Core			14
CIS	311	Introduction to Web Development	3
CIS	350	Database Systems	3
		TOTAL	20

Web Development Specialist

CIS Courses		Titles	Credits
CIS Minor Core			14
CIS	311	Introduction to Web Development	3
CIS	357	Java Programming	3
		OR	
CIS	403	Advanced Visual Programming	3
CIS	411	Internet Server-Side Programming	4
		TOTAL	24

Systems Analysis and Design

CIS Courses		Titles	Credits
CIS Minor Core			14
CIS	350	Database Systems	3
CIS Upper Division Elective			3
		TOTAL	20

Software Engineer/Programmer

CIS Courses		Titles	Credits
CIS Minor Core			14
CIS	253	Advanced C++ Programming	3
		OR	
CIS	403	Advanced Visual Programming	3
CIS Upper Division Electives			3-6
		TOTAL	20-23

CIS majors may select any academic minor offered at the University or complete an Electronic Engineering Technology (EET) emphasis. The emphasis includes three (3) required courses and two (2) elective courses for a total of 20 credit hours. Required courses include:

Requirements for Emphasis in Electronic Engineering Technology

Courses		Titles	Credits
CENT	255	Introduction to Micro Processors	4
EET	250	Electrical Fundamentals	4
EET	254	Introduction to Digital Electronics	4
Select two from the following:			
CENT	354	Computer Architecture	4
CENT	355	Microcomputer Assembly Language	4
CENT	357	Digital Communications	4
		TOTAL	20

Co-curricular Requirements

The CIS faculty support and encourage students to have co-curricular experiences that complement and reinforce the curricular experiences by participation in student organizations, clubs, employment or other related activities.

DEPARTMENT OF ENGINEERING

Department Chair: Jane M. Fraser

Faculty: Carrasco, Depalma, Fraser, Gosavi, Jaksic, Massey, Sarper

The industrial engineering major leads to a bachelor of science in industrial engineering (BSIEN) degree. This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, Telephone: (410) 347-7700.

The department also provides courses for the first two years of other engineering disciplines for potential transfer students, courses for engineering options in chemistry and physics, and a master of science in industrial and systems engineering (MSISE) degree.

As defined by the Institute of Industrial Engineers: Industrial Engineering is concerned with the design, improvement and installation of integrated systems of people, materials, information, equipment, and energy.

Industrial engineering is a major branch of engineering with applications in manufacturing, service, governmental, and non-profit organizations. It draws upon specialized knowledge and skill in the mathematical and physical sciences, together with the principles and methods of engineering analysis and design, to specify, predict and evaluate the results to be obtained from such integrated systems.

Industrial engineers design, improve, and manage the factories and facilities that produce the goods and services at reasonable prices that everyone enjoys every day. Industrial engineers are productivity and quality specialists who deal with the human aspects of work in addition to the advanced technologies of computer software and production-related hardware.

The program also offers the Master of Science in Industrial and Systems Engineering. For more information, see the Graduate Studies section of this catalog.

A minor is offered in industrial engineering for students interested in a technical, applied science addition to their major area of study. Engineering options are also available in chemistry and physics, offering students in these majors an opportunity to achieve specific employment or graduate educational goals. The program requirements for the chemistry and physics engineering options are described in the Chemistry and Physics sections of the catalog.

Department Goals

- To provide students with high-quality instruction in industrial engineering which is broad-based and strongly rooted in mathematics, physical science and engineering science.
- To prepare graduates in industrial engineering to function effectively in the workplace and make immediate contributions to the efficient and effective operation of manufacturing industries, service organizations and governmental agencies.
- To maintain accreditation by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Expected Student Outcomes

General Requirements

- Graduates are required to complete an approved program of study with a cumulative GPA of 2.000 or better in their major courses.

- Graduates are required to demonstrate the ability to formulate mathematical models, develop and use computer solutions as appropriate, collect and statistically analyze data, and prepare both written and oral reports of their analysis.

Specific Requirements for the Industrial Engineering Major

EN Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	231/L	Circuit Analysis/Lab	5
EN	315	Intro to Indus & Sys Engineering	3
EN	321	Thermodynamics	3
EN	324/L	Mechanics of Materials/Lab	4
EN	340	Human Performance Engineering	2
EN	342	Manufacturing Processes	4
EN	343	Engineering Economy	3
EN	420	Simulation Experiments	4
EN	440	Safety Engineering	3
EN	443	Quality Control and Reliability	3
EN	465	Stochastic Systems Engineering	4
EN	471	Operations Research	4
EN	473	Computer Integrated Manufacturing	3
EN	475	Facilities Planning and Design	3
EN	477	Operations Planning and Control	3
EN	488	Indus Engr Design Projects	3
		TOTAL	67

Other Required Courses			
MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
MATH	337	Differential Equations I	3
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
		TOTAL	23

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual program's curriculum sheet.

Typical Schedule of Courses for the Industrial Engineering Major

Freshman Year

Course		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
ENG	101	Composition I	3
ENG	102	Composition II	3
MATH	126/224	Calculus and Analytic Geom I/II	10
PHYS	221/L	General Physics I/Lab	5
General Education			3
		TOTAL	31

Sophomore Year

Courses		Titles	Credits
EN	211/212	Engineering Mechanics I/II	6
EN	231/L	Circuit Analysis/Lab	5
EN	315	Intro to Indus & Sys Engineering	3
EN	324/L	Mechanics of Materials/Lab	4
MATH	337	Differential Equations I	3
PHYS	222/L	General Physics II/Lab	5
SPCOM	103	Speaking & Listening	3
		TOTAL	29

Junior Year

Courses		Titles	Credits
EN	321	Thermodynamics I	3
EN	340	Human Performance Engr.	2
EN	342	Manufacturing Processes	4
EN	343	Engineering Economy	3
EN	420	Simulation Experiments	4
EN	443	Quality Control and Reliability	3
EN	465	Stochastic Systems Engineering	4
EN	471	Operations Research	4
General Education			3
		TOTAL	30

Senior Year

Course		Titles	Credits
EN	440	Safety Engineering	3
EN	473	Computer Integrated Manufacturing	3
EN	475	Facilities Planning and Design	3
EN	477	Operations Planning and Control	3
EN	488	Industrial Engr Design Projects	3
Technical Electives			6
General Education			9
		TOTAL	30

Specific Requirements for the Minor in Industrial Engineering

EN Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	315	Intro to Indus & Sys Engineering	3
EN	343	Engineering Economy	3
PLUS three of the following:			
EN	340	Human Performance Engineering	2
EN	342	Manufacturing Processes	4
EN	420	Simulation Experiments	4
EN	440	Safety Engineering	3
EN	443	Quality Control and Reliability	3
EN	471	Operations Research	4
EN	473	Computer Integrated Manufacturing	3
EN	475	Facilities Planning and Design	3
EN	477	Operations Planning and Control	3
		TOTAL	21-25

Co-curricular Requirements

Engineering graduates should be introduced to the professional world and encouraged to develop a sense of obligation to the development and ethical practice of engineering. Consequently, the faculty support the activities of the local chapters of the Institute of Industrial Engineers (IIE), the Society of Women Engineers (SWE), the institute of Electrical and Electronics Engineers (IEEE) and the Society of Mexican American Engineers and Scientists (MAES), encourage student participation and promote the operation of student chapters.

Outcomes Assessment Activities

- During the final semester of study and after successfully completing necessary prerequisite courses, all industrial engineering students are required to demonstrate their ability to apply and integrate the skills learned in the IE program by producing a capstone engineering design project. This project must incorporate subject material covered in two or more of the major courses, illustrate the student's ability to do independent project work, and include written and oral reports to demonstrate the student's communication skills.

- All senior industrial engineering students are required to take the Fundamentals of Engineering (Engineer-In-Training or EIT) Exam administered by the Colorado State Board of Registration for Professional Engineers, on a regularly scheduled examination date. Students must take the exam to be eligible to graduate, although the results of the exam will not effect GPA or graduation.

- Employment, progress toward profession registration, and enrollment in graduate degree programs will be tracked to the extent possible.

Engineering Transfer Program

Students seeking to major in some area of engineering other than industrial engineering (civil, electrical, mechanical, etc.) can complete at least 60 credits (two years of work) that will transfer to other engineering schools. Most accredited engineering programs require students to complete at least one semester of college chemistry (CHEM 121 and 121L), a two semester sequence in calculus based physics (PHYS 221, 221L, 222, 222L), three semesters of calculus (MATH 126, 224, 325), one semester of differential equations (MATH 337), and one course in computer applications and programming. Courses in engineering technology are not accepted for transfer to engineering programs.

Recommended courses for a student planning to transfer to another engineering school includes:

Courses		Titles	Credits
CHEM	121/L	General Chemistry/Lab	5
MATH	126/224	Calculus I & II	10
MATH	207	Vector and Matrix Algebra	2
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations	3
PHYS	221/L 222/L	General Physics I & II/Lab	10

Humanities and Social Sciences 9-15
Engineering Courses and/or Additional
Science Courses 12-18

The engineering or additional science courses taken would depend on the major chosen.

A one or two year program should be planned in consultation with an advisor at USC and the university to which the student is planning to transfer. During the first semester, a typical engineering program would include a course in chemistry, (CHEM 111, 111L for a student who did not complete a year of chemistry in high school or CHEM 121, 121L for those who did), a course in mathematics (college algebra MATH 121, precalculus MATH 124, or calculus MATH 126 depending on the high school background), an introduction to engineering course (EN 103), and a computer programming class (EN 101 or CIS 121).

To transfer to another engineering school will require a good grade point average. Eighteen credits per semester is the maximum number of credits a student would be allowed to take as a freshman. A student working part-time should not enroll in more than 12 to 15 credits depending on the number of hours worked.

DEPARTMENT OF ENGINEERING TECHNOLOGY

Department Chair: Wolfgang Sauer

CIVIL ENGINEERING TECHNOLOGY PROGRAM

Program Coordinator: Ward Holderness

Faculty: Cheng, Hirth, Holderness

The major in civil engineering technology leads to a bachelor of science in civil engineering technology (BSCET) degree.

The major is designed to produce competent field engineering technologists, surveyors, soil and concrete technologists, construction estimators, project managers and engineering design technologists, who have supervisory capabilities. The curriculum places emphasis on surveying, construction, design and estimating. The upper-division courses provide a broader and more detailed understanding in areas such as land surveying, water supply systems, architectural drafting and civil design projects. Managerial and supervisory capabilities are developed in the estimating and project management classes.

Students seeking a degree in civil engineering technology should have a mathematics/science background including algebra, geometry and trigonometry.

Program Goals

- To prepare graduates in civil engineering technology to function effectively in the engineering, surveying or construction teams.
- To provide our students with a broad based curriculum and quality instruction.
- To maintain accreditation as defined by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Expected Student Outcomes

General Requirements

- Graduates are required to complete an approved program of study with a cumulative GPA of 2.000 or better in their major courses.
- Graduates are required to demonstrate skill and knowledge in the areas of quantitative analysis and science by having a cumulative GPA of 2.000 or better in the mathematics and physics courses common to all programs.
- Civil engineering technology majors are required to demonstrate the ability to solve problems appropriate to their discipline, acquire computer skills, and to complete a final senior-year technical project requiring an oral and written presentation.

Specific Requirements for the CET Major

It is expected that CET graduates should have the appropriate skills and knowledge regarding surveying and drafting. In addition, they should have a knowledge of basic construction materials along with the fundamentals of statics, strength of materials, hydraulics, structural analysis and design.

This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 050, Baltimore, MD 21202, Telephone: (410) 347-7700.

Engineering Technology Core Courses

Courses		Titles	Credits
ET	101	Introduction to Engineering Technology	2
ET	202	Statics	3
ET	206	Strengths of Materials	4
ET	300	Project Planning, Scheduling and Management	3
		TOTAL	12

Civil Engineering Technology Courses

Courses		Titles	Credits
CET	102	Surveying I	3
CET	103	Surveying II	3
CET	115	Civil Drafting I	3
CET	116	Civil Drafting II	3
CET	203	Dynamics	1
CET	207	Construction Materials & Methods	3
CET	208	Concrete & Asphalt Materials	3
CET	215	Advanced Surveying I	3
CET	304	Construction Cost Estimating I	3
CET	305	Construction Cost Estimating II	3
CET	315	Soil Mechanics Technology	3
CET	404	Structural Steel Design	3
CET	405	Reinforced Concrete Design	3
CET	411	Hydraulics	3
CET	455	Design Seminar	1
CET	456	Senior Project	3
Approved CET Electives			9
Approved Technical Electives			9
		TOTAL	62

Math, Science and Computer Courses

Courses		Titles	Credits
CIS	101	Computers and You	2
CENT	226	Intro to Programming	2
CHEM	111	Principles of Chemistry OR	
GEOL	101	Earth Science	3
MATH	131	Algebra and Trig for Engineering Technology I	4
MATH	132	Algebra and Trig for Engineering Technology II	4
MATH	231	Calculus for Engineering Tech I	3
MATH	232	Calculus for Engineering Tech II	3
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	202/L	Principles of Physics II/Lab	4
		TOTAL	29

Institutional and General Education

Please refer to the General Education Requirements in the undergraduate section of this catalog. For the knowledge component, CET majors need to take six credits (two courses) each in the areas of Humanities and Social Sciences. No additional courses are needed for Science and Technology.

Co-curricular Requirements

The faculty supports and encourages the involvement of engineering technology majors in at least one technical organization specific to each discipline and actively encourages student participation in such organizations.

Outcomes Assessment Activities

- To be eligible for graduation, all civil engineering technology majors are required to take an examination. The results of the examination will be used in the evaluation of the program. Test results will have no effect on student's GPA.
- Graduates and their employers will be surveyed as to program satisfaction and job performance following their graduation.

Civil Engineering Technology Typical Schedule of Courses

Freshman - Fall

Courses		Titles	Credits
CET	102	Surveying I	3
CET	115	Civil Drafting I	3
CIS	101	Computers and You	2
ET	101	Introduction to Engineering Tech	2
MATH	131	Math for Engineering Technology I	4
		TOTAL	14

Freshman - Spring

Courses		Titles	Credits
CET	103	Surveying II	3
CET	116	Civil Drafting II	3
ENG	101	Composition I	3
MATH	132	Math for Engineering Tech II	4
General Education, Knowledge Component			3
		TOTAL	16

Sophomore - Fall

Courses		Titles	Credits
CET	203	Dynamics	1
CET	207	Construction Materials & Methods	3
CET	215	Advanced Surveying I	3
ENG	102	Composition II	3
ET	202	Statics	3
MATH	231	Calculus for Engineering Tech I	3
		TOTAL	16

Sophomore - Spring

Courses		Titles	Credits
CET	208	Concrete and Asphalt Materials	3
ET	206	Strength of Materials	4
MATH	232	Calculus for Engineering Tech II	3
SPCOM	103	Speaking and Listening	3
General Education, Knowledge Component			3
		TOTAL	16

Junior-Fall

Courses		Titles	Credits
CENT	226	Introduction to Programming	2
CET	304	Construction Cost Estimating I	3
CHEM	111	Principles of Chemistry	
		OR	
GEOL	101	Earth Sciences	3
PHYS	201/L	Physics I w/Lab	4
General Education, Knowledge Component			3
		TOTAL	15

Junior - Spring

Courses		Titles	Credits
CET	305	Construction Cost Estimating II	3
CET	404	Structural Steel Design	3
ET	300	Project Planning, Scheduling & Management	3
PHYS	202/L	Physics II w/Lab	4
General Education, Knowledge Component			3
		TOTAL	16

Senior-Fall

Courses		Titles	Credits
CET	405	Reinforced Concrete Design	3
CET	411	Hydraulics	3
CET	455	Design Seminar	1
CET Elective			3
CET Elective			3
Technical Elective			3
		TOTAL	16

Senior-Spring

Courses		Titles	Credits
CET	315	Soil Mechanics Technology	3
CET	456	Senior Project	3
CET Elective			3
Technical Elective			3
Technical Elective			3
		TOTAL	15

Total required credit hours 124

ELECTRONICS ENGINEERING TECHNOLOGY PROGRAM

Program Coordinator: William Huffine

Faculty: Brown, DePalma, Huffine

The major in electronics engineering technology leads to a bachelor of science degree in electronics engineering technology (BSEET). The EET program prepares graduates for positions in the electronic and computer industries. This unique, interdisciplinary program combines electronics, computer technology, and computer science in an integrated curriculum. Basic design concepts, as well as construction, testing, analysis, and computer applications are included. Theory and laboratory work cover the design, testing, analysis and computer applications of conventional and state-of-the-art circuits and systems. Advanced programming concepts are taught using modern software.

Creative design projects relating to typically-used circuits and systems involving both discrete components and integrated circuits are included as part of the course work in the junior and senior years. The program provides the student with the comprehensive academic background needed for many advanced positions in the electronics and computer industries. It also prepares graduates to analyze computer problems and design solutions across a broad spectrum of hardware and software.

Students seeking a degree in EET should have a mathematics/science background including algebra, geometry, trigonometry, and science.

Program Goals

- To prepare graduates to work effectively in the electronics and computer engineering spectrum.
- To graduate students who can apply the theoretical foundations and skills of their discipline to solve practical engineering problems by using current technology.
- To maintain accreditation as defined by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Expected Student Outcomes

General Requirements

- Graduates are required to complete an approved program of study with a cumulative GPA of 2.000 or better in their major courses.
- Graduates are required to demonstrate skill and knowledge in the areas of quantitative analysis and science by having a cumulative GPA of 2.000 or better in the mathematics and physics courses common to all ET programs.
- Majors are required to demonstrate the ability to solve problems, to use computer techniques, and to complete a final senior-year technical project with an oral and written presentation.

Specific Requirements for the EET Major

All EET majors will be required to learn the use of basic electronic laboratory instruments, and to demonstrate such knowledge through appropriate laboratory experiences. In addition, EET majors should obtain a knowledge of electrical circuits, discrete electronic devices, digital circuits, integrated circuits (both digital and analog), microcomputers, programming, and analog and digital communications.

The EET program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering Technology, 111 Market Place, Suite 050, Baltimore, MD 21202, Telephone: (410) 347-7700.

Engineering Technology Core Courses

Courses		Titles	Credits
ET	101	Introduction to Engineering Technology	2
ET	300	Project Planning, Scheduling, and Management	3
MET	105	It's a Material World	4
		SUB-TOTAL	9

Electronics Engineering Technology Courses

Courses		Titles	Credits
CENT	226	Introduction to Programming	2
CENT	230	C Language Programming	3
CENT	255	Introduction to Microprocessors	4
CENT	354	Computer Architecture Design	4
CENT	357	Digital Communications	4
CENT	358	Computer Networks	3
EET	121	DC Circuits	4
EET	122	AC Circuits	4
EET	211	Electronics I	4
EET	212	Electronics II	4
EET	254	Introduction to Digital Electronics	4
EET	351	Electronics III	4
EET	356	Electronics IV	4
EET	412	Communication Systems	4
EET	455	Design Seminar	1
EET	456	Senior Project	3
Approved Technical Electives			8
		SUB-TOTAL	64

Math, Science, and Computer Courses

Courses		Titles	Credits
CIS	101	Computers and You	2
CIS	215	Unix Operating Systems	3
CIS	385	PC Architecture	3
MATH	131	Algebra/Trig for Engineering Tech I	4
MATH	132	Algebra/Trig for Engineering Tech II	4
MATH	231	Calculus for Engineering Tech I	3
MATH	232	Calculus for Engineering Tech II	3
PHYS	201/L	Principles of Physics I	4
PHYS	202/L	Principles of Physics II	4
		SUB-TOTAL	30

Institutional and General Education

Please refer to the General Education Requirements in the undergraduate section of this catalog. For the knowledge component, EET majors need to take six credits (two courses) each in the areas of Humanities and Social Sciences. No additional courses are needed in Science and Technology.

Outcome Assessment Activities

- Completion of all required courses as determined by the department.
- Students must successfully complete a Senior Project incorporating what they have learned.
- Faculty advisors monitor each student's progress toward completing major requirements.
- Annual Industrial Advisory Committee meetings are held to solicit industry feedback and support.
- Graduates and their employers will be surveyed as to program satisfaction and job performance.

Electronics Engineering Technology Typical Schedule of Courses

Freshman - Fall

Courses		Titles	Credits
CIS	101	Computers and You	2
EET	121	DC Circuits	4
ENG	101	Composition I	3
ET	101	Introduction to Engineering Technology	2
MATH	131	Math for Engineering Technology I	4
		TOTAL	15

Freshman - Spring

Courses		Titles	Credits
EET	122	AC Circuits	4
EET	254	Introduction to Digital Systems	4
ENG	102	Composition II	3
MATH	132	Math for Engineering Technology II	4
		TOTAL	15

Sophomore - Fall

Courses		Titles	Credits
CENT	226	Introduction to Programming	2
CENT	255	Introduction to Microprocessors	4
EET	211	Electronics I	4
MATH	231	Calculus for Engineering Tech. I	3
PHYS	201/L	Physics I w/Lab	4
		TOTAL	17

Sophomore - Spring

Courses		Titles	Credits
CENT	230	C Language Programming	3
EET	212	Electronics II	4
MATH	232	Calculus for Engineering Tech. II	3
PHYS	202/L	Physics II w/Lab	4
SPCOM	103	Speaking and Listening	3
		TOTAL	17

Junior - Fall

Courses		Titles	Credits
CIS	215	Unix Operating System	3
CIS	385	PC Architecture & System Software	3
EET	351	Electronics III	4
MET	105	It's a Material World	4
General Education, Knowledge Component			3
		TOTAL	17

Junior - Spring

Courses		Titles	Credits
CENT	354	Computer Architecture Design	4
EET	356	Electronics IV	4
ET	300	Project Planning, Scheduling, & Management	3
Technical Elective			2
General Education, Knowledge Component			3
		TOTAL	16

Senior - Fall

Courses		Titles	Credits
CENT	358	Computer Networks	3
EET	412	Communication Systems	4
EET	455	Design Seminar	1
Technical Elective			3
General Education, Knowledge Component			3
		TOTAL	14

Senior - Spring

Courses		Titles	Credits
CENT	357	Digital Communications	4
EET	456	Senior Project	3
Technical Elective			3
General Education, Knowledge Component			3
		TOTAL	13

Total required credit hours..... 124

MECHANICAL ENGINEERING TECHNOLOGY PROGRAM

Department Chair: Wolfgang Sauer

Faculty: Bailey, Chen, Sauer

The major in mechanical engineering technology leads to a bachelor of science degree in mechanical engineering technology (BSMET). The MET program is structured to provide the student with a mix of theory and practical applications in the classroom. Classroom material is reinforced with hands-on application in laboratories. The majority of classes include laboratories. Three areas of the discipline that are emphasized in the MET program are manufacturing, design, and applied mechanics. Computers and design form a common thread throughout each area. Upon graduation, the student has the knowledge and skills that make him or her an immediate asset to employers. The MET graduate can expect to fill positions in industry that use mechanical engineering concepts in a mix of manufacturing, product development, instrumentation, or experimentation.

Students seeking a degree in the mechanical engineering technology discipline should have a mathematics/science background including algebra, geometry and trigonometry.

Program Goals

- To prepare graduates in mechanical engineering technology to function effectively throughout the engineering spectrum.
- To graduate students who can apply to theoretical foundations and skills of their discipline to solve practical engineering problems by using existing technology.
- To maintain accreditation for all programs as defined by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Expected Student Outcomes

General Requirements

- Graduates are required to complete an approved program of study with a cumulative GPA of 2.000 or better in their major courses.
- Graduates are required to demonstrate skill and knowledge in the areas of quantitative analysis and science by having a cumulative GPA of 2.000 or better in the mathematics/physics, and chemistry courses common to all programs.
- All mechanical engineering technology majors are required to demonstrate the ability to solve problems appropriate to their discipline, to use computer skills and to complete a final senior-year technical project requiring design and fabrication of a working model followed by written and oral presentations.
- All mechanical engineering technology majors are required to study at least one computer language and to demonstrate their knowledge by applying computer programs to their daily class problems.

Specific Requirements for the MET Major

MET majors will obtain a knowledge of drafting, computer-aided design, materials, fluids, thermodynamics, all phases of manufacturing, robotics, and the design process. This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 050, Baltimore, MD 21202, Telephone: (410) 347-7700.

Engineering Technology Core Courses

Courses		Titles	Credits
ET	101	Introduction to Engineering Technology	2
ET	202	Statics	3
ET	206	Strengths of Materials	4
ET	300	Project Planning, Scheduling and Management	3
		SUB-TOTAL	12

Mechanical Engineering Technology Courses

Courses		Titles	Credits
MET	105	It's a Material World	4
MET	112	Mechanical Drafting (CAD)	3
MET	203	Manufacturing Processes I	4
MET	204	Manufacturing Processes II	3
MET	311	Quality Control	3
MET	322	Dynamics of Machinery	3
MET	341	Thermal and Fluid Principles I	3
MET	352	Design of Machine Elements	3
MET	356	Design Seminar	1
MET	361	Computer Integrated Manufacturing	3
MET	441	Thermal and Fluid Principles II	3
MET	442	Design of Energy Systems	3
MET	456	Senior Project	3
MET	460	Instrumentation and Control	3
Approved MET Electives			6
Approved Technical Electives			9
		SUB-TOTAL	57

Math, Science and Computer Courses

Courses		Titles	Credits
CENT	226	Introduction to Programming	2
CHEM	111/L	Principles of Chemistry/Lab	4
CIS	101	Computers and You	2
EET	250	Electrical Fundamentals and Applications	4
MATH	131	Algebra and Trig for Engineering Technology I	4
MATH	132	Algebra and Trig for Engineering Technology II	4
MATH	231	Calculus for Engineering Tech I	3
MATH	232	Calculus for Engineering Tech II	3
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	202/L	Principle of Physics II/Lab	4
		TOTAL	34

Institutional and General Education

Please refer to the General Education Requirements in the undergraduate section of this catalog. For the knowledge component, MET majors need to take six credits (two courses) each in the areas of Humanities and Social Sciences. No additional courses are needed for Science and Technology.

Outcomes Assessment Activities

- To be eligible for graduation, all mechanical engineering technology majors are required to take an examination. The results of the examination will be used in the evaluation of the program. The results for individual students will be kept in strict confidence; however, any individual student can obtain her/his results for advisory purposes. Test results will have no effect on student's GPA.

- Graduates and their employers will be surveyed as to program satisfaction and job performance during the first, third and fifth years following graduation.

Mechanical Engineering Technology
Typical Schedule of Courses

Freshman - Fall

Courses		Titles	Credits
CIS	101	Computers and You	2
ENG	101	Composition I	3
ET	101	Introduction to Engineering Tech.	2
MATH	131	Math for Engineering Technology I	4
MET	105	It's a Material World	4
		TOTAL	15

Freshman - Spring

Courses		Titles	Credits
CHEM	111/L	Principles of Chemistry	4
ENG	102	Composition II	3
MATH	132	Math for Engineering Technology II	4
MET	112	Computer-Aided Drafting	3
SPCOM	103	Speaking and Listening	3
		TOTAL	17

Sophomore - Fall

Courses		Titles	Credits
CENT	226	Introduction to Programming	2
ET	202	Statics	3
MATH	231	Calculus for Engineering Tech. I	3
MET	203	Manufacturing Processes I	4
PHYS	201/L	Physics I w/Lab	4
		TOTAL	16

Sophomore - Spring

Courses		Titles	Credits
ET	206	Strength of Materials	4
MATH	232	Calculus for Engineering Tech. II	3
MET	204	Manufacturing Processes II	3
PHYS	202/L	Physics II w/Lab	4
General Education, Knowledge Component			3
		TOTAL	17

Junior - Fall

Courses		Titles	Credits
EET	250	Electrical Fundamentals	4
MET	322	Dynamics of Machinery	3
MET	341	Thermal and Fluids Principles I	3
MET	352	Design of Machine Elements	3
General Education, Knowledge Component			3
		TOTAL	16

Junior - Spring

Courses		Titles	Credits
ET	300	Project Planning, Scheduling and Management	3
MET	311	Quality Control	3
MET	356	Basic Design Principles	2
MET	441	Thermal and Fluids Principles II	3
Technical Elective			3
General Education, Knowledge Component			3
		TOTAL	17

Senior -Fall

Courses		Titles	Credits
MET	442	Design of Energy Systems	2
MET	456	Senior Project	3
MET	460	Instrumentation and Control	3
MET Elective			3
General Education, Knowledge Component			3
		TOTAL	14

Senior - Spring

Courses		Titles	Credits
MET	361	Computer Integrated Manufacturing	3
MET Elective			3
Technical Elective			3
Technical Elective			3
		TOTAL	12

Total required credit hours 124

EXERCISE SCIENCE, HEALTH PROMOTION, AND RECREATION DEPARTMENT

Department Chair: Foust
Faculty: Dallam, Rathbone, Sims, Stuyt

The mission of the Department of Exercise Science, Health Promotion, and Recreation is to provide students with a strong academic background that includes hands-on, real-world experiential opportunities, which emphasize a student-centered approach to learning. The department offers a B.S. in Exercise Science and Health Promotion and a B.S. in Recreation degree as well as three minors.

Exercise Science

The B.S. Exercise Science and Health Promotion (EXHP) program currently includes three options of study:

- Health Promotion/Wellness
- K-12 Physical Education Teacher Preparation
- Athletic Training

Common to all options of study is a core of exercise science and health promotion courses. Upon completion of these program requirements, a student will be eligible to sit for a variety of nationally recognized certification exams including those offered by the American College of Sports Medicine ("Health/Fitness Instructor", "Personal Trainer", and "Exercise Leader"), the American Council on Exercise ("Personal Trainer", and "Aerobics Instructor"), the Aerobics and Fitness Association of America ("Personal Trainer", and "Aerobics Instructor"), and the National Strength and Conditioning Association ("Certified Strength and Conditioning Specialist").

Completion of core courses and obtainment of any of the aforementioned certifications prepare program graduates for professional positions in worksite, clinical, fitness center, and YMCA/YWCA settings.

- Students completing the Health Promotion/Wellness option will be eligible to sit for the entry-level certified Health Education Specialist exam and the Health Promotion Specialist certification being developed by the Association for Worksite Health Promotion. Health promotion/wellness graduates can find employment in employee wellness, community health, government and volunteer health agencies, clinical and managed care settings.

- Completion of the K-12 Physical Education Teacher Preparation option coursework, acceptance into the Teacher Preparation program, completion of a minor in Education, and receipt of a passing score on the Colorado Department of Education P.L.A.C.E. test enables a student to receive Teacher Licensure in the State of Colorado. Licensed teachers can find physical education teaching positions in both the public and private school settings.

- Completion of coursework in an EXHP option of study further increases a student's marketability. With completion of coursework in the Athletic Training option and appropriate clinical experience, a student can sit for the National Athletic Trainers' Association Board of Certification exam to become a certified Athletic Trainer. Athletic Trainers may find employment in high school, university/college, clinical, corporate, and professional sports settings.

Two minors are currently available in Exercise and Health Promotion.

- The Exercise Science minor is available to non-EXHP majors. This minor is ideal for Biology majors in the pre-physical therapy, pre-medicine, or pre-chiropractic options of study.

- The Coaching minor also is available to all students and is a great choice for EXHP K-12 Physical Education Teacher Preparation majors as well as any other student aspiring to coach on a part-time basis.

Recreation

The B.S. Recreation program consists of two options of study:

- Community/Commercial
- Outdoor Adventure Leadership

Completion of both options of study prepares graduates to work in positions of leadership in a variety of recreational service agencies. Prospective employers include parks and recreation departments at the city, county, district, and state levels as well as voluntary youth agencies such as the YWCA/YMCA, boys' and girls' clubs and scouting.

Other areas of employment include recreation programs in the military, hospital, commercial, and worksite settings. In addition, students completing the Outdoor Adventure Leadership option are eligible to sit for the Wilderness Education Association Outdoor Leader Certification Exam.

- A minor in Recreation is available to all students. The minor is ideal for EXHP, social work, sociology, and Biology as well as for students aspiring to teach in public/private schools.

EXERCISE SCIENCE AND HEALTH PROMOTION

Program Goals

- To prepare students to be life-long learners and to be vital members of the community they dwell in.

- To prepare students to become productive, accountable and responsible employees upon entry into the workforce.

- To prepare students to enter graduate or professional schools.

- To provide students with a broad-based theoretical foundation supported by laboratory and field experiences that allow individual observations, inferences, and hands-on mastery of skills.

Expected Student Outcomes

General Requirements:

All departmental Majors are required to:

- Complete an option of study with a cumulative GPA of 2.50 or higher;
- Earn a minimum grade of a "C" in all prerequisite and major courses;
- Repeat prerequisite and major courses with a grade of "D" or lower until a grade of "C" or higher is achieved;
- Complete a minor with a cumulative GPA of 2.0 or higher;
- Earn a cumulative GPA of 2.0 or higher in required English/speech communication courses;

Exercise Science and Health Promotion graduates are expected to:

- Demonstrate understanding of the philosophy and historical basis of the disciplines of exercise science and health promotion;
- Exhibit the ability to read and interpret scientific journal articles in exercise science and health promotion with an understanding of the scientific methods, statistics, and design of the studies;
- Exhibit knowledge of the structure and function of the human organism both at rest and during movement;
- Exhibit knowledge of the structure and function of the human organism both at rest and during movement;
- Display knowledge and skill related to first aid and the care/prevention of injuries occurring during physical activity;
- Demonstrate skills and knowledge germane to exercise assessment, programming and leadership;
- Exhibit knowledge in the basic principles of health with emphasis on the application of nutrition and personal fitness concepts in attaining personal wellness.
- Exhibit knowledge of the underlying Kinesiological Principles governing human movement.

Specific Requirements for the B.S. Exercise Science degree:

Core Course Requirements

Course		Titles	Credits
EXHP	101	Introduction to Exercise Science & Health Promotion	3
EXHP	162	Personal Health	3
EXHP	343	Measurement and Evaluation	3
EXHP	344	Exercise Physiology	3
EXHP	344L	Exercise Physiology Lab	1
EXHP	364	Kinesiology	3
EXHP	445	Exercise Leadership	3
		TOTAL	19

Option Course Requirements

Health Promotion/Wellness

Courses		Titles	Credits
EXHP	112	Nutrition	3
EXHP	222	Behavior Facilitation	3
EXHP	232	First Aid	2
EXHP	288	Health Promotion Practicum	3
EXHP	382	Lifestyle Disease Risk Reduction	3
EXHP	444	Exercise Assessment and Programming	3
EXHP	485	Health Promotion Programs	3
EXHP	487	HP Program Planning/Evaluation	4
EXHP	498	Internship	12
MGMT	201	Principles of Management	3
MKTG	340	Principles of Marketing	3
PSYCH	205	Introduction to Sports Psychology	3
Two credits from the following:			
EXHP	110L	Weight Training	1
EXHP	115L	Skiing	1
EXHP	116L	Camping	1
EXHP	117L	Backpacking	1
EXHP	118L	Jogging	1
EXHP	120L	Aerobics	1
EXHP	175L	Racquetball	1
REC	102	Mountain Orientation	2
REC	103	Winter Orientation	2
REC	104	Desert Orientation	2
		TOTAL	47

K-12 Physical Education Teacher Preparation

Courses		Titles	Credits
EXHP	232	First Aid	2
EXHP	233	History and Principles of PE	2
EXHP	243	Methods of Rhythmic Activities	2
EXHP	245	Motor Learning and Development	3
EXHP	260	Care & Prevention of Athletic Injuries	3
EXHP	345	Methods of Team Sports I	2
EXHP	346	Methods of Team Sport II	2
EXHP	348	Methods of Individual/Dual Sports	2
EXHP	351	Methods of Teaching Elementary Physical Education	2
EXHP	461	Program Administration of PER	3
EXHP	465	Adapted PE	3
EXHP	470	Methods of Coaching and Officiating	3
EXHP	478	Methods of Teaching Secondary Physical Education	3
REC	249	Challenge Course Leadership	2

Two credits from the following:

EXHP	115L	Skiing	1
EXHP	116L	Camping	1
EXHP	117L	Backpacking	1
REC	102	Mountain Orientation	2
REC	103	Winter Orientation	2
REC	104	Desert Orientation	2

TOTAL 37

For teaching endorsement requirements, see the Teacher Education Program section of this catalog.

Athletic Training

Courses		Titles	Credits
BIOL	220	Medical Terminology	2
EXHP	112	Nutrition	3
EXHP	189	Practicum in Athletic Training I	1
EXHP	222	Behavior Facilitation	3
EXHP	232	First Aid	3
EXHP	260	Care and Prevention of Athletic Injuries	3
EXHP	289	Practicum in Athletic Training II	1
EXHP	362	Therapeutic Modalities	3
EXHP	363	Rehabilitation: Theory & Practice	3
EXHP	389	Practicum in Athletic Training III	1
EXHP	443	Advance Topics in Athletic Training	3
EXHP	444	Exercise Assessment and Programming	3
EXHP	450	Orthopaedic Evaluation I	3
EXHP	451	Orthopaedic Evaluation II	3
EXHP	479	Practicum in Athletic Training IV	1
EXHP	489	Senior Practicum in Athletic Training	1
NSG	207	Nursing Pathophysiology	3
PSYCH	205	Introduction of Sport Psychology	3

TOTAL 43

Athletic Training Education Program

Competitive Admission Policy

The athletic training curriculum is highly competitive. Entry into the curriculum is not guaranteed upon completion of the pre-professional phase. The determining factors include the success of the pre-professional experience, meeting all academic prerequisites, completion of Level 1 clinical competencies, and how many students are enrolled in the program. The number of students admitted into the program varies from year to year.

Selection is centered on academic achievement and athletic training experiences. Academic achievement involves successful completion of BIOL 223, 223L, BIOL 224, 224L, EXHP 101, 189, and 260 (with at least a B), and maintaining a GPA of at least a 2.6 on a 4-point scale. The athletic training experience includes working under the direct supervision of a certified athletic trainer and completing the Level 1 clinical competencies.

Any student that will have completed all prerequisites by the end of July is eligible to apply for admission. Applications are available from the Director of Athletic Training Education. Applications must be completed and submitted to the Program Director by July 1st prior to the semester of admission.

Students applying for admission to the program must meet the following requirements prior to admission.

- A minimum cumulative GPA of 2.6 for all course work completed;
- A declared Exercise Science and Health Promotions and Recreation major;
- Completion of basic college-level human anatomy course (e.g., BIO 223 and BIO 224 and labs Human Anatomy and Physiology, with a grade of C or higher);

- Completion of a basic First Aid/CPR course (e.g., EXPH 232-First Aid with a grade of C or higher);
- Valid certification in CPR (American Red Cross, American Heart Association, or equivalent);
- Completion of a basic college-level athletic training course (e.g., EXHP 260-Care and Prevention of Athletic Injuries) with a grade not lower than a B;
- A recommendation from a Certified Athletic Trainer who knows you and your interest and commitment to athletic training;
- Completion of the Level 1 clinical competencies (Knight: Clinical Experiences in Athletic Training.

Applicants will be notified in writing regarding the outcome of their application. All students accepted into the program will begin the curriculum as a Level 2 at the beginning of his/her junior year. If the application is not accepted, the student will have the opportunity to re-apply the following year. Unfavorable decisions may be appealed to the Program Director within two weeks after official notification.

Outcomes Assessment Activities

In addition to assessment, which is inherent in the core/option requirements, prior to receiving clearance for graduation, each EXHP major must complete a Departmental exit survey and prepare an electronic portfolio which includes:

A current copy of academic transcripts and resume; samples of research/term papers, projects, etc. from EXHP and other relevant courses; evidence of participation in on- and/or off-campus interpersonal and leadership skill building co-curricular activities; and letters of recommendation from professionals on- and-off campus.

Exercise Science and Health Promotion Minor

Program Goals

- To provide coursework that complements a major course of study.
- To enhance the student's employment marketability and acceptance into graduate/professional school.

Expected Student Outcomes

Exercise Science and Health Promotion minors will:

- Complete the credit hour requirement of the minor;
- Complete all required coursework with a cumulative GPA of 2.5 or higher;
- Earn a minimum grade of "C" in all minor courses;
- Repeat minor courses with a grade of "D" or lower until a grade of "C" or higher is achieved;

Specific Requirements for Exercise Science and Health Promotion minors:

Coaching

Courses		Titles	Credits
EXHP	112	Nutrition	3
EXHP	260	Care and Prevention of Athletic Injuries	3
EXHP	364	Kinesiology	3
EXHP	470	Methods of Coaching &Officiating	3
EXHP	473	Coaching Certification Clinic	1
		Methods of coaching courses	4
		and/or	
EXHP	494	Field Experience	(1-5 VAR)
PSYCH	205	Intro to Sports Psych	3
PSYCH	405	Applied Sports Psych	3
		TOTAL	23

Exercise Science for Non-Exercise Science and Health Promotion Majors

Courses		Titles	Credits
EXHP	101	Introduction to Exercise Science and Health Promotion	3
EXHP	112	Nutrition	3
EXHP	162	Personal Health	3
REC	249	Challenge Course Leadership	2
EXHP	300 or higher level student electives		9
		TOTAL	20

RECREATION

Recreation Program Goals

- To prepare students to be life-long learners and to be vital members of the community they dwell in.
- To prepare students to become productive, accountable and responsible employees upon entry into the workforce.
- To prepare students to enter graduate or professional schools.
- To provide students with a broad-based theoretical foundation supported by field experiences that allow individual observations, inferences, and hands-on mastery of skills.

Expected Student Outcomes

General Requirements:

Majors are required to:

- Complete an option of study with a cumulative GPA of 2.50 or higher;
- Earn a minimum grade of a "C" in all prerequisite and major courses;
- Repeat prerequisite and major courses with a grade of "D" or lower until a grade of "C" or higher is achieved;
- Complete a minor with a cumulative GPA of 2.0 or higher;
- Earn a cumulative GPA of 2.0 or higher in required English/speech communication courses;
- Complete, with a grade of "C" or higher, a minimum of three research or professional papers that reflect competency in paper-writing in courses in the recreation major;
- Provide evidence of involvement in on- or off-campus interpersonal or leadership skill building co-curricular experiences; and
- Create a professional resume for use in application for internship and employment opportunities.

Recreation graduates are expected to:

- Demonstrate knowledge of the history and philosophy of leisure, recreation, and parks in western society;
- Exhibit awareness of the scope of the leisure services delivery spectrum, including public, private, and non-profit sector service providers in major specializations of leisure, recreation, and parks;
- Demonstrate an understanding of and ability to conduct various recreation program planning phases including client assessment, goal setting, activity analysis/selection, program management and evaluation;
- Demonstrate knowledge and the skills involved in a recreation leadership function including interpersonal communication, trust building, power and influence, interpersonal conflict and its resolution, teaching and transference, and decision making;
- Exhibit an awareness of the special populations that recreation programs and resources must accommodate, the implications of programming for each population, and specific agencies/legislation currently providing services for each population;
- Demonstrate knowledge of the principal federal and state agencies providing parks and resource-based recreation opportunities in the United States including the primary management policies and challenges;
- Demonstrate competencies in applying principles of management to recreation services and resources, including the organization of agencies, personnel, fiscal/risk management, and marketing;
- Exhibit an understanding of philosophies, history, curricular elements, and settings for outdoor education in the United States;
- Exhibit an awareness of key professional organizations and current trends/issues in the field of recreation; and
- Demonstrate the ability to read and interpret professional journal articles relevant to recreation.

Specific Requirements for the BS Recreation degree:

Core Course Requirements

Courses		Titles	Credits
REC	101	Introduction to Recreation	3
REC	240	Recreation Program Planning	3
REC	280	Foundations of TR	3
REC	350	Leadership & Ethics	3
REC	360	Teaching Exp Ed in Outdoors	3
REC	375	Research & Eval of REC	3
REC	389	Practicum	3
REC	482	Administration of REC	3
REC	493	Seminar	2
REC	498	Internship	12
		TOTAL	38

Option Course Requirements

Outdoor Adventure Leadership

Courses		Titles	Credits
EXHP	113L-117L	Outdoor Skills (select 4 of 5)	4
REC	102	Mountain Orientation	2
REC	103	Winter Orientation	2
REC	104	Desert Orientation	2
REC	249	Challenge Course Leadership	2
REC	270	Outdoor Leadership I	2
REC	370	Outdoor Leadership II	2
REC	470	Wilderness First Responder	2
REC	484	Outdoor Resources & Management	3
		TOTAL	21

Community/Commercial Recreation

Courses		Titles	Credits
REC	250	Program Planning in Commercial and Recreation and Tourism	3
REC	485	Recreation Facility Design and Management	3
MCCNM	216	Advertising	3
MCCNM	280	Public Relations	3
MGMT	201	Principles of Management	3
MGMT	318	Human Resource Management	3
MKTG	340	Principles of Marketing	3
		TOTAL	21

Outcomes Assessment Activities

In addition to assessment, which is inherent in the core/allied/methods coursework requirements, prior to receiving clearance for graduation, each Recreation major must complete a Departmental exit survey and prepare a portfolio which includes:

- A current copy of academic transcripts and resume;
- Samples of research/term papers, projects, etc., from Recreation and other relevant courses;
- Evidence of participation in on- and/or off-campus interpersonal and leadership skill building co-curricular activities; and
- Letters of recommendation from professionals on-and-off campus.

Recreation Minor Program Goals

- To provide coursework that complements a major course of study.
- To enhance the student's employment marketability and acceptance into graduate/professional school.

Expected Student Outcomes

Recreation minors will:

- Complete the credit hour requirement of the minor;
- Complete all required coursework with a cumulative GPA of 2.5 or higher;
- Earn a minimum grade of a "C" in all minor courses;
- Repeat minor courses with a grade of "D" or lower until a grade of "C" or higher is achieved;

Recreation Minor: Specific Requirements

Courses		Titles	Credits
REC	101	Introduction to Recreation	3
REC	240	Recreation Program Design	3
REC	280	Foundations of TR	3
REC	360	Teaching Exp Ed in Outdoors	3
REC	375	Research & Eval of REC	3
REC	389	Practicum	3
REC	482	Administration of REC	3
		TOTAL	21

NURSING DEPARTMENT

Department Chair: Steen
Faculty: Brown, DePalma, Johnston, Miller, Sabo, Steen, Williams, Van Etten

The nursing program includes two tracks. One for basic/generic students completing a four year degree and one for RN's from associate and diploma programs returning for their BSN. The major in nursing leads to a bachelor of science in nursing (BSN) degree and prepares the graduate for the NCLEX licensing examination. Success in passing the NCLEX qualifies the graduate for entry into professional nursing practice as a generalist in a variety of health care settings. The educational program is fully approved by the Colorado Board of Nursing and is accredited by the National League for Nursing Accreditating Commission (NLNAC), 61 Broadway, New York, NY 10006.

The curriculum is designed with prerequisite foundation courses at the lower division. Students enter the nursing sequence in the second semester of the sophomore year and must complete courses in a specified sequence. Course work in nursing focuses on the preparation of entry-level professional nurses who are able to provide caring and competent nursing care to clients based on the utilization of the nursing process in facilitating fulfillment of health-related human needs. Learning experiences are grounded in multi-theoretical perspectives that integrate diverse nursing roles and emphasize professional, ethical accountability.

Basic/generic students

Admission to the university does not imply acceptance to the nursing major. Applications to the nursing program may be obtained in the nursing department or the Office of Admissions and returned to the transfer consultant in the Office of Admissions prior to the scheduled deadline. Generic students are admitted to the nursing major based on a cumulative GPA of 2.75 from all the schools attended and successful completion of prerequisite courses. Students for whom English is a second language must have a TOFEL of 550 or have completed the University requirements for English and Speech skills. Pre-nursing and nursing majors are assigned to a nursing faculty member for academic advisement. Requests for advanced placement through transfer or equivalent credit of nursing courses must be submitted in writing to the Nursing Department.

RN to BSN completion through Articulation

Registered Nurses with an associate degree or a diploma in nursing from a Colorado school or an NLNAC-accredited school may articulate to the baccalaureate nursing program without testing in nursing content areas. Prior to applying to the nursing program an RN must meet the following requirements in the order listed below:

- Meet with a nursing advisor and develop a plan for completing the nursing program.
- Apply to the University and be accepted.
- Complete the general education and required supporting courses according to the plan.
- Earn a cumulative GPA of 2.500 in all the schools attended.
- Complete the application process to the nursing program.

To accommodate the working nurse, the delivery of the RN-BSN nursing theory courses are designed so that all courses are delivered once each week. Clinical labs are arranged on an individual basis.

Department Goals

- Provide quality learning experiences for nursing students that prepare graduates for practice as competent, caring, ethical and accountable entry-level professional nurses.
- Maintain the program curriculum congruent with the expectation of health professional employers, resources of the university and the university, and needs of students.
- Maintain approval of the Colorado Board of Nursing (COB) and National Nursing Accrediting Agencies.
- Facilitate associate degree and diploma RNs achievement of baccalaureate education consistent with the Colorado Nursing Articulation Model.
- Serve as the regional nursing education center for Southern Colorado , collaborating with local and regional health care agencies.

Expected Student Outcomes

- Practice nursing using a human needs framework incorporating multi-disciplinary theories.
- Demonstrate entry level competence in providing nursing care to individuals, families, groups and communities.
- Employ critical thinking utilizing the nursing process and results of research to manage client care.
- Incorporate caring (commitment, compassion, conscience, competence, confidence) into professional nursing practice.
- Integrate nursing roles for professional nurses as defined in the Colorado Nursing Articulation Model.
- Facilitate effective, purposeful communication between self and others (peers, clients and other professionals) to promote common goals in diverse health care settings.
- Evaluate the influence of the complex interactions of multiple environmental factors on the formulation of health care plans to meet the health and safety needs of individuals, families and communities.
- Demonstrate behaviors that reflect professional ethics and accountability congruent with the American Nurses' Association (ANA) Code of Ethics and the State Nurse Practice Acts in the provision of non-discriminatory nursing care to clients.

Institutional/General Education Courses required for admission to the nursing major (Generic and RN-BSN)

Courses		Titles	Credits
CIS	101	Computers and You	2
ENG	101	English Composition I	3
ENG	102	English Composition II	3
SPCOM	103	Speaking & Listening	3

Completion of general education requirements not listed in admission requirements (see below).

	Credits
Humanities	6
Social Science	3

Required supporting courses for admission to the nursing major (Generic and BSN)

In addition to the General Education Requirements, specific supporting courses for nursing include:

Courses		Titles	Credits
BIOL	112	Nutrition	3
BIOL	206/L	Microbiology & Lab	4
BIOL	223/L	Human Anatomy & Physiology I & Lab	4
BIOL	224/L	Human Anatomy & Physiology II & Lab	4
CHEM	111/L	Principles of Chemistry & Lab	4
MATH	156	Introduction to Statistics (Math)	3
PSYCH	100	General Psychology	3
PSYCH	151	Human Development	3

Required Generic Nursing Courses

NSG Courses		Titles	Credits
NSG	207	Nursing Pathophysiology	3
NSG	231	Introduction to Professional Nursing	2
NSG	232/L	Fundamentals of Nursing & Lab	7
NSG	302/L	Health Assessment & Lab	4
NSG	312/L	Nursing Care of Child Bearing Families & Lab	6
NSG	322/L	Nursing Care of Adults I & Lab	7
NSG	332/L	Nursing Care of Children and Adolescents & Lab	6
NSG	351	Research in Nursing	3
NSG	382/L	Psychiatric Nursing & Lab	6
NSG	420/L	Nursing Care of the Adult II & Lab	7
NSG	442/L	Community and Family Nursing & Lab	6
NSG	451	Nursing Management	3
NSG	452/L	Nursing Process: Synthesis & Lab	6
NSG	461	Health Care Issues and Trends	3
		SUB-TOTAL	69
Elective			3
		TOTAL	72

RN-BSN completion through articulation, required nursing courses

NSG Courses		Titles	Credits
NSG	302/L	Health Assessment & Lab	4
NSG	307	Health and Disease Systems (pathophysiology)	3
NSG	309	Professional Nursing Practice	4

NSG	311	Concepts for Professional Nursing	4
NSG	351	Research in Nursing	3
NSG	442/L	Community and Family Nursing & Lab	6
NSG	451	Nursing Management	3
NSG	452/L	Nursing Process: Synthesis & Lab	6
NSG	461	Health Care Issues and Trends	3
		SUB-TOTAL	36
Upper Division Electives to Complete 40 hours			4
		TOTAL	40

Please refer to the nursing curriculum guide and an advisor in the nursing department for the appropriate sequence of classes for the generic/basic nursing major.

Co-curricular Requirements

Nursing Majors are expected to:

- conduct themselves in a manner that reflects the values of the profession. The guidelines for professional behavior are derived from two major sources: 1) the Colorado Nurse Practice Act, and 2) the ANA Code of Ethics, a statement of standards and ideals for nursing;
- participate in clinical practicums in various health care facilities and work with individuals and families with a variety of health conditions. Most of the clinical practicums are off-campus. Students are responsible for personal transportation to and from health care facilities for clinical experience;
- function within health facility policies for patient care. Students must meet institutional health requirements and guidelines.
- maintain the required academic standards. All required courses in nursing, general education, and the academic minor or area of concentration must be completed with a grade of C or above. Failure to maintain a cumulative GPA of 2.5 will result in the student being ineligible to continue in the nursing program. Nursing courses must be repeated within one academic year from the date of unsatisfactory grades. Students who are not in continuous enrollment in nursing courses need to contact an advisor in the Nursing Department to formulate a plan to continue.

Outcomes Assessment Activities

- Assessment of clinical competencies and evaluation tools;
- Individual and class scores in the department standardized testing program.
- An End-of-Program Evaluation survey and a graduate follow-up survey of nursing graduates and their employers one year and five years after graduation;
- State Board Results (NCLEX) required of graduates prior to professional nursing practice as a registered nurse;
- Student portfolios consisting of course and clinical projects, clinical evaluations tools, research proposals and scholarly papers and
- Individual student exit interview.

SPEECH COMMUNICATION PROGRAM

Faculty: Aldag, O'Leary, Sherman

The program in speech communication has two main objectives. First, it enhances students' knowledge of verbal expression through development of skills in analyzing, composing, expression, interpreting, and evaluating discourse. Second, it prepares students for graduate work in communication disorders, which leads to professions in the field of Speech-Language Pathology and Audiology.

The program in speech communication leads to the degrees of bachelor of arts (BA) or bachelor of science (BS). Students completing an emphasis in communication disorders will receive the BS degree. Students completing the emphasis area in general speech communication will receive the BA degree.

Communication disorders students will be expected to complete required observation and clinical clock-hour assignments, under qualified supervisors in schools, hospitals, and clinics in southern Colorado.

Department Goals

- Prepare students for a career in communication disorders.
- Provide students with a liberal arts approach to speech communication.

EXPECTED STUDENT OUTCOMES

General Requirements

- All majors must complete a set of required courses (the core), and declare an emphasis area from the following list: general speech communication or communication disorders.
- No grade lower than C will count toward the major.
- All majors must successfully complete a minor.
- Successful majors will be capable of analyzing, synthesizing, interpreting, evaluating, and communicating ideas in public.
- Successful majors will be able to engage in problem analysis, present a well-reasoned solution to a problem, and know the tests for evidence and reasoning.
- The graduate in speech communication will possess an understanding of the principles underlying the discipline generally and the respective emphasis areas. Such understanding would include knowledge of specific aesthetic and ethical values as they apply to the speech act, and factual knowledge about human speech.

Specific Requirements for the Speech Major

SPCOM 103, Speaking and Listening, or its equivalent, is a prerequisite for all courses above the 100-level.

Core Courses	Titles	Credits
SPCOM 211	Public Speaking	3
SPCOM 231	Oral Interpretation	3
SPCOM 261	Voice and Diction	3
SPCOM 493	Seminar	3
	TOTAL	12

General Speech Emphasis

SPCOM Electives in general speech 20
(A minimum of eight semester hours must be upper division.)

Communication Disorders Emphasis

Core Courses		Titles	Credits
PHYS	361	Physics of Sound	3
PSYCH	100	General Psychology I	3
PSYCH	251	Infancy, Childhood and Preadolescence	3
PSYCH	252	Adolescence, Adulthood and Aging	3
PSYCH	351	Psych of the Exceptional Individual	3
PSYCH	362	Abnormal Psychology	3
PSYCH Electives			5
SPCOM	250	Intro to Communication Disorders.	2
SPCOM	260	Language Acquisition and Linguistics	3
SPCOM	324/L	Anatomy of the Head, Neck and Chest w/Lab	3
SPCOM	351	Articulation Disorders	2
SPCOM	352	Voice Disorders	2
SPCOM	353	Stuttering	2
SPCOM	361	Phonetics	2
SPCOM	365	Basic Audiology	3
SPCOM	451	Aural Rehabilitation	3
SPCOM	452	Diag & Methods in Speech Pathology	2
SPCOM	462	Organic Disorders of Speech	3
SPCOM	463	Language Disorders in Children	2
SPCOM	469	Clinical Exper in Comm Disorders	1
SPCOM Electives			6
		TOTAL	59

Specific Requirements for the Speech Communication Minor

The minor in speech communication consists of 20 semester hours of curriculum offerings, six of which must be upper division. A minor is designed to meet the specific needs of the student and must be planned with the assistance of an adviser and approved by the department chair.

Co-curricular Requirements

The speech faculty believe that speech communication graduates must have co-curricular experiences that complement and reinforce the curricular experiences: therefore, graduates must document evidence of successful completion of required observation and clinical clock-hour assignments.

Outcome Assessment Activities

All majors and transfer students will be pre-tested as follows:

1) The speaking ability of all USC students declaring a speech communication major will be evaluated in one of the speech courses they are enrolled in at the time they declare the major. The evaluation will be based upon a classroom presentation.

2) The speaking ability of all transfer students declaring a major will be evaluated in the same way. Additionally, the final grade earned in an introductory speech course at the student's previous school will be considered.

- The speech communication faculty believe that grades are a valid record of students' progress. All majors and minors are therefore required to complete work in the major or minor at a grade level of C or better; no lower grades will count toward the major or minor.

- A central file of syllabi, assignments, and exams, revealing how they are adapted to program objectives, will be retained in the departmental office for inspection by qualified persons.

- Each student's major adviser will keep a record of the student's work in a folder. The record will include a list of completed course work, and a sample of the student's writing prepared for a freshman, sophomore, junior, and senior level course, preferably distributed over four academic years. Folders of all majors and minors will be retained for a minimum of two years to enable qualified persons to assess student performance in meeting program goals.

- In SPCOM 493, Seminar, all majors will demonstrate their ability to complete a scholarly paper in correct English, and to present and defend its findings orally.

- Graduating seniors will complete a rating form that will indicate their reactions to department courses they have taken. They will also complete relevant essay questions indicating their satisfaction with the overall

TEACHER EDUCATION PROGRAM

Dr. Victoria Marquesen, Associate Dean

Faculty: Guiterrez, Piazza, Ryan, Valerio, Weinhouse

The University of Southern Colorado is redesigning its teacher education program to meet the new Colorado statutory requirements, including the ability of a student to complete the graduation requirements in four academic years and 800 hours of field experience. The approval of existing teacher education programs will terminate on June 30, 2001. The redesigned programs will be reviewed and reauthorized by the Commission on Higher Education in 2000-2001. Since the new teacher preparation curriculum is not available at the time of the catalog printing, new students who intend to enroll in teacher preparation programs should consult with their assigned advisor or the Teacher Education Program immediately to plan their curriculum. Because the institution cannot guarantee that all majors currently offered for the teacher preparation will receive approval by the State of Colorado under the new statutory requirements, it is important that students consult with their assigned advisor.

Students who were admitted to teacher education prior to July 1, 2000, may complete the degree requirements in the 1999-2000 catalog.

Mission of the Teacher Education

The Teacher Education Program has a primary mission of preparing teachers of quality and distinction. At the University of Southern Colorado, preparing teachers is a campus-wide responsibility, with faculty and administrators involved in support of the program's mission. An integral component of the program is its formal partnership with 17 school districts and four community colleges in southern and southeastern Colorado. The joint efforts of students, faculty, and administrators across all partners focus on improving the quality of learning in classrooms in elementary, secondary, and higher education.

Conceptual Framework—Building and Bridging Communities of Learners

A *Conceptual Framework* is a guide for how a teacher education program is planned and organized, summarizing its philosophical views of the roles of teaching and learning and its essential understandings of how students become teachers. The conceptual framework of teacher education at the University of Southern Colorado is *Building and Bridging Communities of Learners.* The organizing theme of *learning communities* focuses the attention of faculty and students on the essential nature of teaching and learning: How does community shape learning and achievement? What are the roles of successful learners and teachers? What social interactions are necessary for both learning and community? How is the definition of a learning community changing in an increasingly technological age? What is the relationship between the concept of learning community and the democratic ideal of American education?

For faculty at USC, the vision of quality education requires a learner-centered environment in which learning (not teaching) is at the core. All learners will achieve in communities in which learning is publicly and constructively discussed, a positive climate surrounds all members, and support exists for all learners' individual growth and development.

Inclusive, equitable communities require constant attention to the nature of relationships among teachers and students. USC students will be prepared to participate as learners and teachers in overlapping and expanding learning communities–from the university classroom to K-12 settings, the professional education community, distributed communities created by technology, and cultural, economic, and political communities of students and their families.

To become beginning teachers, students must change their perceptions of themselves as learners and as students of teaching. As USC students progress through the program, they will skillfully assume a variety of roles, including those of master learners, instructors, collaborators, apprentices, models, coaches, colleagues, and mentors. It is the mission of the USC teacher education program to prepare teachers and learners of quality and distinction by exposing students to quality communities of teaching and learning.

Program Goals

- Prepare teachers of quality and distinction with broad-based liberal arts education, depth of knowledge in the areas in which they teach, and the ability to skillfully translate theory and practice to ensure student learning.
- Create a learner-centered community designed to achieve program goals and expected student results.
- Provide systematic advising and evaluation activities which assure student success and program quality.
- Serve the region and state of Colorado through partnerships with school districts and institutions of higher education.

Student Outcomes

The Teacher Education Program is a standards-based model of education. Student outcomes are the foundation of the program, upon which the curriculum, instruction, and assessment are aligned and implemented. Based on its mission to produce teachers of quality and distinction, the program has adopted goals in eight areas. Each goal has been articulated into a series of performance-based standards or outcomes that all students must achieve before completing the program. Benchmarks, or more specific outcomes, for each standard have been developed as course objectives throughout the program, and faculty across campus have organized course requirements and assignments to assure that students can meet these standards at high levels.

Standards are aligned with the *Performance-based Standards for Colorado Teachers* (2000) and requirements of the Colorado Department of Education and Colorado Commission on Higher Education. Proficiency in all standards is required for successful completion of teacher education and recommendation for state licensure.

Teacher Education Goals

USC teacher education graduates will:

1. Use democratic principles to create communities of learners that assure positive social interactions, collaboration, and cooperation.

2. Create learning experiences that make content knowledge accessible, exciting, and meaningful for all students.

3. Create a learning community in which individual differences are respected, appreciated, and celebrated.

4. Ensure, through the use of standards and informal and formal assessment activities, the continuous development of all learners.

5. Construct and use pedagogy to maximize the intellectual, social, physical, and moral development of all students.

6. Be reflective decision-makers, incorporating understandings of educational history, philosophy, and inquiry, as will as the values of the democratic ideal.

7. Create communities of learning by working collaboratively with colleagues, families, and other members.

8. Model the professional and ethical responsibilities of the education profession.

Teaching Endorsement Areas

The Teacher Education Program collaborates with other academic units to offer programs leading to Colorado teacher licensure in the following endorsement areas:

Art (K-12)
Elementary Education (K-6)
English (7-12)
Foreign Languages (7-12) –Spanish
Mathematics (7-12)
Music (K-12)
Physical Education (K-12)
Science (7-12)
Social Science (7-12)

Selective Entry and Retention in Teacher Education

Admission

Many education courses require the prerequisite of admission to education (see description of courses). Students complete the admission to education process during ED 301: Frameworks of Teaching. The entire process for gathering information and submitting it to faculty is completed during the course.

The following are the requirements that must be met to be admitted to teacher education. No exceptions can occur to these requirements:

1. Complete Health Clearance Form

2. Cumulative gradepoint of 2.60 or greater. For students admitting in Spring 2001 or Summer 2001 the minimum gradepoint requirement will be a cumulative GPA of 2.5. However, these students will be required to earn a cumulative GPA of 2.60 or better before enrollment in student teaching.

3. Completion of ENG 101 and 102 with grades of C or better.

4. Completion of MATH 109 or math course required by major field. A grade of B or better is required in MATH 109; a grade of C or better is required in MATH 121, 124, 126, or 221. Students who complete both MATH 109 and MATH 156 prior to admission may be admitted with grades of C or better in both courses.

5. Completion of SPCOM 103 with a grade of B or better, or, students completing SPCOM 103 with a C or degree plus students may complete this competency through the Oral Proficiency Exam.

6. Completion of ED 301 with a grade of C or better. Beginning in Fall 2001, students must also complete ED 280 with a grade of C or better.

7. Completion of a formal, standardized test such as the Academic Profile and a writing sample.

8. Completion of an education portfolio. Six types of materials will be submitted with the portfolio: 1) transcripts and official documents demonstrating student performance in university classes, 2) materials developed in university classes which demonstrate proficiency on specific education

9. standards, 3) recommendations and evaluations from teachers, 4) materials used in field experiences and videos of teaching, 5) personal reflections and summaries about progress, and 6) results of formal tests. Specific portfolio requirements and manner of evaluation is included in the appendices to the *Teacher Education Handbook.* In Spring and Summer semesters 2001 students may submit their portfolios as a notebook or in electronic form. Beginning in Fall 2001, all portfolios will be submitted in electronic format (website).

Retention

Students must maintain a cumulative GPA of 2.6 and must continue to make progress towards proficiency on program standards to remain in the teacher education program. Additional details related to program retention are included in the *Teacher Education Handbook.*

Student Teaching

Student teaching provides opportunities to integrate theory with practice. Prior to being approved for a student teaching assignment, the following requirements must be met:

1. Completion of all course work including courses in the content area and education.

2. Cumulative GPA of 2.600.

3. GPA of 2.500 in the academic major.

4. Grades if C or higher in all courses required for licensure.

5. Passing score on the PLACE content exam in the student's licensure area.

6. Completion of an education portfolio. Six types of materials will be submitted with the portfolio: 1) transcripts and official documents demonstrating students performance in university classes, 2) materials developed in university classes which demonstrate proficiency on specific education standards. 3) recommendations and evaluations from teachers, 4) materials used in field experience and videos of teaching, and 5) personal reflections and summaries about progress. Specific portfolio requirements and manner of evaluation is included in the appendices to the *Teacher Education Handbook.* In Spring and Summer semesters 2001 students may submit their portfolios as a notebook or in electronic form. Beginning in Fall 2001, all portfolios will be submitted in electronic format (website).

Applications must be submitted a semester in advance: Last Friday in September for a Spring semester assignment; first Friday in March for a fall semester assignment.

Teacher Licensure

Applications for licensure are forwarded to the Colorado Department of Education (CDE) with the institutional recommendation only after official transcripts have been received and a final review has been conducted by the Teacher Education Program.

Specific Requirements for the Elementary Teaching Endorsement

USC requires the student interested in Elementary Education to complete a Liberal Studies major in addition to the courses in Education listed below.

Courses	Titles	Credits
ED 202	Foundations of Education PREREQUISITES- None	3
ED 280	Educational Media and Technology PREREQUISITES- None (Required for admission after summer 2001)	3
ED 301	Frameworks of Teaching PREREQUISITES- Completion of 45 college hours and a cumulative GPA of 2.6 (Admission to Education is completed in this course)	3
ED 380	Integrated Methods in Elem. School PREREQUISITES- Admission to Education ; GPA of 2.6; Completion of Liberal Studies Arts block	3
RDG 410	Teaching Elementary Language Arts PREREQUISITES- Admission to Education; GPA of 2.6	4
ED 412	Teaching Diverse Learners PREREQUISITES-Admission to Education; GPA of 2.6	3

ED 413 Teaching Social Studies 3
PREREQUISITES-Admission to Education; GPA of 2.6

ED 414 Teaching Elementary Science & Health .. 2
PREREQUISITES-Admission to Education; GPA of 2.6

ED 417 Teaching Mathematics in the Elementary School..... 2
PREREQUISITES- Admission to Education: GPA of 2.6; Completion of Liberal Studies Math Block.

ED 485 Capstone Seminar..... 2
PREREQUISITES-Admission to Student Teaching. Must be taken with student teaching

ED 487 Student Teaching in the Elementary School..... 12
PREREQUISITES- Admission to Student Teaching

Specific Requirements for the Secondary and K-12 Teaching Endorsements

The student must complete an appropriate major and the following Education courses:

Courses	Titles	Credits
PSYCH 151	Human Development	3
	PREREQUISITES-None	
ED 202	Foundations of Education	3
	PREREQUISITES-None	
ED 280	Educational Media and Technology	3
	PREREQUISITES-None	
	(Required for admission after summer (2001)	
ED 301	Frameworks of Teaching.....	3
	(Admission to Education is completed in this course	
	PREREQUISITES-Completion of 45 college hours and a cumulative GPA of 2.6	
PSYCH 342	Educational Psychology.....	3
	PREREQUISITES- PSYCH 151	
RDG 435	Content Area Literacy	4
	PREREQUISITES-Admission to Education; GPA of 2.6	
	Special Methods in Endorsement Areas.....	4-9
	PREREQUISITES-Admission to Education; GPA of 2.6	
ED 412	Teaching Diverse Learners*.....	3
	PREREQUISITES-Admission to Education: GPA of 2.6	
ED 485	Capstone Seminar.....	2
	PREREQUISITES-Admission to Student Teaching. Must be taken with student teaching.	
ED 488/489	Secondary Student Teaching/Student Teaching K-12.....	12
	PREREQUISITES-Admission to Student Teaching	
	TOTAL	37-42

*Physical Education students complete EXHP 465 Adaptive Physical Education

Performance Assessment Activities

In the Teacher Education Program performance assessment is a process that documents the relationship between the stated mission, goals, program standards, and actual student outcomes. Assessment is multidimensional and comprehensive, utilizing a variety of quantitative and qualitative measures.

- Assessment of student progress is frequent and ongoing throughout the program. At three points in the student's program, faculty complete a multidimensional assessment of progress on teacher education program standards: at admission to education, admission to student teaching, and during student teaching. These assessments include a review of progress in all courses, evaluation of student performance through a student-constructed portfolio, and review of K-12 teachers' evaluation of student performance in field experiences.

- Evaluation of progress occurs at the end of each semester after admission to education through a review of student performance in university classes and field experiences.

- Student records are maintained in the Teacher Education Office.

READING PROGRAM

Reading Minor

The reading minor is intended for elementary, secondary, or K-12 teacher certification candidates who wish to have a recognized are of strength in the teaching of reading and other language arts.

Expected Student Outcomes

As a result of successfully completing the reading minor, the student must be able to:

- recognize, describe, diagnose, and teach all the generally accepted concepts, strategies and skills in the areas of oral language, reading readiness, emergent literacy, word recognition, comprehension, interpretation, literary appreciation, reading for information, critical reading and thinking, reference skills, study skills, oral reading, listening, speaking, English language usage, syntax, grammar, punctuation, capitalization, creative and informative writing, spelling and penmanship;

- describe the role and importance of the child's self-concept, experience and culture, home language and dialect, stages of growth and development, and success and familiarity with literature as factors in motivating growth in reading and the language arts;

- plan lessons and teach effectively using a variety of grouping techniques, including whole class, individual, ability, and cooperative;

- locate and use a variety of materials to teach reading and the other language arts. The materials include textbooks, basal readers, trade and library books, teacher-made materials, computer programs, student-generated texts, centers, newspapers, and children's literature;

- diagnose student reading levels and specific strengths and weaknesses, organize instruction to provide for the needs of the class and individual special students, adapt instruction in content areas to promote content learning, and develop reading and writing growth for all students;

- recognize common causes of reading and writing difficulties and administer and interpret the scores of a variety of informal assessment techniques such as reading miscue inventories and norm-referenced standardized tests;

- assess writing samples for diagnosis and prescription in expression, organization, fluency, sentence and paragraph development, theme, spelling, penmanship and fluency in work processing; and

- explain the need to collaborate with parents librarians, drama and other teachers to provide and effective language arts program.

Specific Requirements

Students must complete the reading core with a GPA of 3.00 or better and complete the reading electives with a cumulative GPA of 2.60 or better. RDG 301 or 425 are prerequisites for other reading courses. The minor requires completion of a minimum of 22 hours, 14 from core courses and 8 hours chosen from available electives with consultation with an education advisor. Many electives are available only in Summer sessions.

Core Course Requirements

Courses	Titles	Credit
ENG 351/ 412	Children's Literature/Adolescent Literature	2
RDG 301*	Teaching Reading and Language Arts in the Elementary School	3
RDG 310	Current Approaches to Reading and Writing Instruction	3
RDG 425**	Teaching Reading in the Content Areas	3
RDG 450	Diagnosis and Remediation of Reading Problems	3
	CORE TOTAL	14

Eight credits of Electives from the following list: 8

Courses	Titles	Credits
RDG 360	Practicum	1-3
RDG 431	Developing Creative Centers	1
RDG 436	New Directions in Reading Comprehension	2
RDG 437	Teaching with Newspapers as a Resource	1
RDG 442	Reading Across Cultures	2
RDG 491	Topics in Reading	1-2
ED 412/ 461	Teaching Diverse Learners/Atypical Students in the Secondary School	3

Core Total	**14**
Electives Required	**8**
Total Required	**22**

* RDG 410 Teaching Reading and Language Arts (4 hrs.) *may replace* RDG 301
**RDG 435 Area Content Literacy (4 hours) may replace RDG 425

Higher Education Act (HEA) Reporting Requirements

In October 1998, Congress enacted Title II of the Higher Education Act (HEA), requiring new reporting requirements for institutions and states on teacher preparation and licensing. Section 207 of Title II requires the annual preparation and submission of a report by each university that prepares teachers on how well individuals who complete its teacher preparation program perform on initial state licensing and certification assessments in their areas of specialization. Universities are also required to publish information on basic aspects of their programs, such as number of students, amount of required supervised practice teaching, and the student-faculty ratio in supervised practice teaching. Below is information on students who completed USC's teacher education program during 1999-2000.

Required Program/Supplementary Material

S.1 Total number of students admitted into teacher preparation, all specializations, in academic year 1999-2000	309
S.2 Number of students in supervised student teaching in academic year 1999-2000	100
Number of faculty members who supervised student teachers:	
➢ S.3A Full-time faculty in professional education	6
➢ S.3B Part-time faculty in professional education but full-time in the institution	0
➢ S.3C Part-time faculty in professional education, not otherwise employed by the institution	8
S.4Total faculty student teaching supervisors	14
S.5 Student teacher/faculty ratio	7.14
S.6A The average number of student teaching hours per week *required*	40
S.6B The total number of weeks of supervised student teaching required	15
S.7 Average total number of hours required	600

S.8. Is your teacher preparation program currently approved or accredited by the state?
__X__ Yes _____ No

S.9. Is your teacher preparation program currently under a designation as "low-performing" by the state)?
_____ Yes __X__ No

University of Southern Colorado Institutional Report Card 5/9/01

Single-Assessment Pass-Rate Data: Regular Teacher Preparation Program

Academic Year: *1999-2000* Testing Period: *9/99-8/00* Number of Program Completers: *100*

Type of Assessment	Assessment Code Number	# Taking Assessment	# Passing Assessment	Institution Pass Rate	Statewide Pass Rate
Academic Content Areas		**90**	**75**	**83%**	**93%**
Elementary Education	01	44	42	95%	96%
Mathematics	04	3	--	--	87%
Science	05	6	--	--	96%
Social Studies	06	13	7	54%	82%
English	07	5	--	--	91%
Spanish	09	6	--	--	89%
Speech	19	1	--	--	43%
Music	29	2	--	--	87%
Physical Education	32	10	9	90%	91%
Other Content Areas		**2**	--	--	**75%**
Industrial Arts	37	2	--	--	80%
Summary of Individual Assessments		**91**	**75**	**82%**	**92%**

Note: Pass rates for content areas with less than 10 students taking the test are not included per the "Rule of 10" described in the *Reference and Reporting Guide*, page 11.

THE COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Dr. Russell Meyer, Dean

Academic Departments	Majors	Minors
Art	Art (BA, BS)	Art
		Chicano Studies
English/ Foreign Languages	English (BA) Foreign Languages Spanish (BA)	English French Italian Spanish Professional Writing
History/ Political Science/	History (BA) Political Science (BA, BS)	History Political Science International Studies
Philosophy		Philosophy
Mass Communications And Center For New Media	Mass Communications (BA, BS)	Mass Communications
Military Science (US Army)		Military Science ROTC Program
Music	Music (BA)	Music
Psychology	Psychology (BA, BS)	Psychology
Sociology/ Anthropology Social Science	Sociology (BA, BS) Social Science (BA, BS)	Sociology Anthropology Social Science
Social Work	Social Work (BSW)	
		Women's Studies

Consortium Master Programs:

Master of Social Work (Colorado State University)
Social Work (MSW)

The mission of the College of Humanities and Social Sciences is to help students to develop critical thinking skills, aesthetic awareness, and ethical perspectives, to provide them with the tools and expertise necessary to function as responsible

citizens and professionals, and to engage in intellectual and artistic pursuits. Faculty members are committed to quality teaching, theoretical and applied research, scholarship, and creativity, and to effective service to the university, the profession, and the region, and to the innovative use of technology in these endeavors. The college strives to be a community of learners, teachers, and scholars responsive to the challenges of a diverse society, a vulnerable environment, and an increasing technological and interdependent world.

ART DEPARTMENT

Department Chair: Sonnema
Faculty: Aviña, Dalton, R. Hansen, V. Hansen, Jensen

The art curriculum is designed to increase the student's understanding of art and its relationship to society. Course offerings in art provide the student with the opportunity to integrate art and appropriate technology.

The art major prepares the student to be a practicing artist, to enter graduate school for further professional education or to enter the job market in art-related careers. Students also may select art courses as a means of achieving a greater sense of personal creativity and accomplishment. Students, faculty, and invited professional artists display works in the USC Art Gallery. An active visiting artist program provides contact with successful regional and national professionals.

The major in art leads to the degrees of bachelor of arts (BA) and bachelor of science (BS). A minor in art is also available.

Department Goals

To prepare students in the discipline of fine art and design, to be visually creative individuals with skills in studio processes, knowledgeable in art history, and with experience to enter art-related careers in the job market.

Expected Student Outcomes

General Requirements

- The art faculty firmly believes that a quality undergraduate art program must be built from the strong foundation of basic concepts and techniques provided by the required ART CORE courses. Art history, drawing and design combined with an introduction to the basic art processes, provide the necessary background of information and skills for individual artistic growth and maturity. A strong grounding in the fundamentals of art, as provided in the ART CORE, indicates the department's insistence upon respect for and commitment to the academic discipline of art as a professional career.

- Art majors must complete the required courses known as the ART CORE, except Art 410, before proceeding into the beginning courses.

- No grade lower than a C will count toward either an art major or minor.

Specific Requirements for the Art Major

ART CORE

ART Courses	Titles	Credits
ART 110	Art Career Orientation (First Semester)	1
ART 105 and 106	History thru Art I and II	6
ART 115 and 116	2D and 3D Design	6
ART 141 and 242	Drawing I & II	6
ART 206	20th Century Art	3
ART 234	Painting I	
	OR	
ART 270	Printmaking I	3
ART 247	Ceramics I	
	OR	
ART 233	Sculpture I	3
ART 281	Introduction to Graphic Design I	
	OR	
ART 274	Computer Imaging	3
ART 410	Senior Career Orientation (Last Semester)	2
	TOTAL	33

PLUS

Emphasis area	11
Art electives selected with an art adviser	6
TOTAL	50

Specific Requirements for the Emphasis in K-12 Art Education

The Art Department now offers a K-12 Art Education emphasis. For more details contact the department.

Specific Requirements for the Art Minor

ART 141 or 242	Drawing I or II	3
ART 115 or 116	2D or 3D Design	3
ART 105 or 106	History thru Art I or II	3
Art electives approved by minor adviser		12
TOTAL		21

Co-curricular requirements

The faculty supports and encourages the involvement of art majors and minors in the Art Club and related activities specific to each studio and actively encourages student participation in such organizations.

Outcomes Assessment Activities

- Art majors will successfully demonstrate competencies required by the department. Competencies will be evaluated through a portfolio review.

- Each art major is required to produce and maintain a portfolio of work done at USC as a record of achievement. The contents and objectives of the portfolio will be described, discussed and planned in the career orientation class (Art 110). Final evaluation of the progressive portfolio will take place during the student's last semester as part of the senior orientation class (Art 410). The format of the portfolio may vary according to subject matter and content but in general the presentation materials will consist of 35mm color slides, prints, graphic design samples, electronic files, and/or video tapes, as appropriate.

- As a competency indicator of achievements in the area of art history, part of the portfolio should contain samples of a student's written material as related to art history, analysis and criticism, as well as a departmental art history exam.

- The intent of the portfolio is to faithfully reflect the ability and competency level of the art student as he or she progresses in the program. The makeup of the portfolio will reflect the personal accomplishments of each individual.

- A complete set of course outlines and examination examples for each course will be maintained and updated by faculty members and made available to the student upon request. Class objectives and skills attained during the class will be denoted clearly in these materials.

CHICANO/A STUDIES PROGRAM

Program Coordinator: D. L. Cobian

The Chicano/a studies minor complements majors and careers in law, sociology, social work, languages, education, government, business and other disciplines. Courses offer unique undergraduate preparation for those who seek entrance to graduate studies in law, humanities or the social sciences.

Students who plan to live and work in the American Southwest or aspire to careers that involve relations in the American continents are likely to be well served by Chicano/a Studies courses. The interdisciplinary approach emphasizes history and cultural studies, and selected courses provide the student with in-depth knowledge of specific aspects of the Chicano/a community.

Program Goals

- To provide individual courses as well as a minor to fulfill the unique role and mission of the University of Southern Colorado.
- To offer an individually designed minor in support of students' majors.

Expected Student Outcomes

General Requirements

- Students in Chicano/a studies courses will display an adequate and measurable knowledge of the subject matter within the course.
- Students in Chicano/a studies courses will develop an understanding of the relationships of ethnic groups within American society by viewing the academic study of Chicanos/as as a paradigm for the study of other ethnic groups.
- Students must earn a C or better in all courses applicable to the minor.

Specific Requirements for the Chicano/a Studies Minor

Twenty-four hours: 12 required, 12 elective. The student will choose three of the first four classes, and the seminar.

CS Courses		Titles	Credits
CS	101	Introduction to Chicano/a Studies	3
CS	306	La Chicana	3
CS	493	Seminar in Chicano/a Studies	3
And one of four History classes:			3
CS	136	The Southwest United States	3
CS	246	History of Mexico	3
CS	303	Chicanos/as Labor History in US	3
CS	489	Borderlands	3
Electives			12
		TOTAL	24

Electives may be selected from Chicano/a studies courses, several of which are cross-listed with other departments, or by approval of the Chicano/a studies coordinator, from courses in such areas as Spanish, history, psychology, sociology, and social work, among others.

CS Course		Titles	Credits
CS/ENG	220	Survey of Chicano/a Literature	3
CS/SW	230	Chicano/a: Social and Psych Study	3
CS/WS	240	Chicana Writers	3
CS	291	Special Topics	1-3
CS	303	Chicano/a Labor History in the U.S	3
CS/SW	325	Health in the Chicano/a Community	3
CS/WS	401	Third World Feminism	3
CS/HIST	489	Borderlands	3
CS	495	Independent Study	1-3

Outcomes Assessment Activities

- Upon identification of a Chicano/a studies minor, the Chicano/a studies coordinator will initiate a "Chicano/a studies program" file on the student, with the student's permission. The file will contain the program of design, the student's orientation (research interest, general interest, personal interest, employment interest, etc.), a history of the student's academic progress, the substantive research paper completed in CS 493, a record of meetings with the coordinator, and other examples of the student's academic performance.

- At three- seven- and 10-year intervals, the graduate will be contacted and asked to evaluate the program's influence.

- In addition to course syllabi, the Chicano/a studies coordinator will retain a copy of examinations administered in Chicano/a studies courses for a 10-year period. At five-year intervals, the coordinator and the faculty will determine if consistency and academic integrity are being maintained by reviewing instruments of cognitive measurement, student perception forms and trends, alumni comments, and comparative analysis of grade distribution patterns.

ENGLISH/FOREIGN LANGUAGES DEPARTMENT

Department Chair: Sheidley
Faculty: Barber, Cobián, Covi, Florensa, Fogelquist, Frank, Griffin, Keplinger, Rodríguez- Arenas, Senatore, C. Taylor, T. Taylor

ENGLISH PROGRAM

The major in English leads to a degree of bachelor of arts (BA) and provides graduates with an understanding of language and literature as a basis for aesthetic, ethical, social, and academic ways of thinking, creating, and researching. Critical, analytic, and composing skills, which provide excellent preparation for professional careers such as teaching, editing and publishing, business, media, public service, and the arts, are emphasized.

Program Goals

- Students will become familiar with significant traditions and historical and cultural contexts of literature.

- Students will become familiar with various theories of literature and various techniques in the analysis and understanding of literature.

- Students will gain aesthetic appreciation of literary works.

- Students will become familiar with the structure, history and functions of language.

- Students will gain proficiency in writing and thinking with clarity, creativity and accuracy, and in analyzing and synthesizing information and ideas.

Expected Student Outcomes

The English faculty believes that students' grades are valid indicators of a student's progress and performance; therefore, students must complete, with a grade of C or better, all courses counting toward the major or minor.

Requirements for the English Major

- Specific requirements for the English major are listed below. Students should consult with an adviser in English before registration.

- Students must fulfill the university language requirements for the BA degree, first year foreign language (6-10 credit hours) OR English 106 (3 credit hours) and Foreign Language 100 (3 credit hours). For International students, English 101 and 102 fulfill the Foreign Language Requirement.

Requirements for the English Minor

Minor requirements are 20 or more semester credit hours of course work in English numbered 130 or above, of which 12 must be upper division. Courses must be chosen in consultation with an adviser in English.

For teaching endorsement requirements, see the Teacher Education Program section.

Co-curricular Requirements

The English faculty supports and encourages English majors' involvement in student organizations and participation in tutoring activities in the community and on campus.

Outcomes Assessment Activities

Assessment of the English program is the responsibility of the English Program Assessment Committee, consisting of the chair of English and Foreign Languages and three other faculty members. The committee's annual reports evaluating the program and proposing any needed changes are compiled from the following information:

- A central file of course syllabi with representative assignments is maintained by the department for inspection by the committee and other qualified persons.

- Faculty advisers monitor each student's progress toward completing major requirements and meeting the Program Goals listed in the catalog. Advisers report any problems or deficiencies in the program encountered by their students to the Program Assessment Committee through the department chair.

- All English majors take a senior-year seminar (English 493) emphasizing professional standards and synthesizing the writing and analytical skills students have acquired in other English classes. All students in English 493 write a senior research paper, one copy of which is submitted to the Program Assessment Committee for review. In order to pass English 493, students must demonstrate satisfactory levels of achievement in the five areas of the program goals.

- The Program Assessment Committee reviews or has reviewed the papers from English 493 on an annual basis and prepares an analysis of what they reveal about the program's success.

- The Program Assessment Committee administers a student-satisfaction questionnaire to all senior English majors each year. A similar questionnaire is sent to recent graduates on a periodic basis.

- The Program Assessment Committee monitors the English curricula at leading comparable institutions and apprises the department of innovations worthy of consideration.

English Major

- Faculty advisers meet individually with each of their students on a regular basis to help plan schedules and discuss educational and career goals. Advisers maintain an accurate and up-to-date record of each students' progress towards completion of the requirements for the major.

- All English majors will participate in a senior-year seminar in which all of the writing and analytical skills acquired in other English classes will be synthesized. Students in the class will be expected to complete a senior research project.

Specific Requirements for the Bachelor of Arts in English

English Major Requirements

ENG Courses		Titles	Credits
ENG	201	Intro to Literary Study	3
One of the following courses:			3
ENG	240	Survey of Ethnic Literature	
ENG	260	Women in Literature	
Two of the following pairs:			12
ENG	310	American Literature I	
ENG	312	American Literature II	
ENG	341	Western World Literature I	
ENG	342	Western World Literature II	
ENG	360	Literature of England I	
ENG	362	Literature of England II	
Two of the following courses:			6
ENG	303	Adv. Comp., Rhet & Gr.	
ENG	315	Creative Writing: Poetry	
ENG	316	Creative Writing: Fiction	
ENG	317	Creative Nonfiction	
ENG	325	Nature Writing in the West	
ENG	440	Magazine Writing	
All of the following courses:			
ENG	352	English Syntax and Usage	3
ENG	381	Drama of Shakespeare	3
ENG	481	Literary Criticism	3
ENG	493	Senior Seminar	3
At least 6 additional credits in English selected in consultation with the advisor:			6
		TOTAL	42

Specific Requirements for the Bachelor of Arts in English with Secondary Teacher Endorsement

English Major Requirements

ENG Courses		Titles	Credits
ENG	201	Intro. to Literary Study	3
One of the following courses:			3
ENG	240	Survey of Ethnic Literature	
ENG	260	Women in Literature	
Both of the following courses:			
ENG	310	American Literature I	3
ENG	312	American Literature II	3

Two of the following courses:			6
ENG	341	Western World Literature I	
ENG	342	Western World Literature II	
ENG	360	Literature of England I	
ENG	362	Literature of England II	
One of the following writing courses:			3
ENG	315	Creative Writing: Poetry	
ENG	316	Creative Writing: Fiction	
ENG	317	Creative Nonfiction	
ENG	325	Nature Writing in the West	
ENG	440	Magazine Writing	

All of the following courses:

ENG	303	Adv. Comp., Rhet & Gr	3
ENG	352	English Syntax and Usage	3
ENG	381	Shakespeare	3
ENG	412	Literature for Adolescents	2
ENG	452	History of the English Language	3
ENG	481	Literary Criticism	3
ENG	493	Senior Seminar	3
		TOTAL	41

PROFESSIONAL WRITING MINOR

The English department coordinates a minor in professional writing, designed to prepare students for work in freelance writing and in editing and publishing, including Web-based publications. The interdisciplinary minor acquaints students with commercial writing markets, desktop publishing, corporate and technical communications, photojournalism, and Web-site design.

Specific Requirements for the Professional Writing Minor

Courses		Titles	Credits
ENG	303	Advanced Composition, Rhetoric and Grammar	3
ENG/MCCNM	440	Magazine Writing	3
MCCNM	132	Website Design & Development	3
MCCNM	211	Desktop Publishing	3
Select Nine credits of electives from the following list:			9
ART	104	Computer Graphic Literacy	
ART	276	Photography	
ART	281	Introduction to Graphic Design I	
ART	284	Designing on the Macintosh I	
ART	381	Introduction to Graphic Design II	
ART	384	Designing on the Macintosh II	
BUSAD	270	Business Communications	
ENG	305	Technical and Scientific Report Writing	
ENG	317	Creative Nonfiction	
MCCNM	280	Public Relations	
MCCNM	310	Advanced Desktop Publishing	
MCCNM	401	Photographic Procedures	
MCCNM	402	Photojournalism	
MCCNM	422	Writing for Public Relations	
MCCNM	450	Film Criticism in the Media	
		TOTAL	21

FOREIGN LANGUAGES PROGRAM

The Foreign Languages Program offers a bachelor of arts in Spanish (BA) intended to prepare students for public school teaching and certification, for admission to graduate school, and for careers in international organizations, government and business.

Minors in French, Italian, and Spanish complement a wide variety of majors in other disciplines to enhance the students' ability to compete for jobs where knowledge of a foreign language is desirable.

Courses in German, Russian and Comparative Linguistics (listed under FL) are taught regularly. Other foreign languages are offered as permitted by enrollment. Student exchanges with foreign universities are encouraged.

Program Goals for Spanish Majors

- Students will achieve satisfactory levels of proficiency in speaking, listening, reading, writing and culture to be measured by examination prior to admission to the required senior seminar.
- Students will acquire a basic knowledge of the traditions and historical and cultural contexts of the literature of both Latin America and Spain.
- Students will develop the critical, analytical and composing skills in Spanish essential to careers in teaching, business, the media, government and the arts.

Program Goals for Minors in Spanish, French and Italian

Students minoring in French, Italian and Spanish will be required to demonstrate a level of proficiency sufficient to converse comfortably on everyday topics as well as intermediate levels of proficiency in writing, reading and culture.

Majors or minors who fail to complete a course with a grade of C or better are required to repeat the course with a satisfactory grade before proceeding to more advanced offerings.

NOTE:
Any language 101 and 102 may be waived for students participating in the Advanced Placement Program with a grade of 4 or 5 or by satisfactory completion of a departmental exam.

Specific Requirements for the Spanish Major

SPN Courses		Titles	Credits
SPN	101	Beginning Spanish I	5
SPN	102	Beginning Spanish II	5
SPN	201	Spanish Grammar & Composition I	3
SPN	202	Spanish Grammar & Composition II	3
SPN	212	Intermediate SPN Conversation II	2
All of the following courses:			
SPN	281	Readings in Hispanic Civilizations I	3
SPN	282	Readings in Hispanic Civilizations II	3
SPN	301	Advanced Grammar & Conversation	3
SPN	302	Advanced SPN Composition & Conversation	3
SPN	311	Survey of Spanish Literature	3
SPN	312	Survey of Spanish-American Literature	3
SPN	360	Literary Theory Trends in Spanish And Spanish American Literature	3
SPN	493	Senior Seminar	3
Spanish Electives			13
		TOTAL	55

Specific Requirements for the Spanish Major with Secondary Training Endorsement

SPN Courses		Titles	Credits
SPN	101	Beginning Spanish I	5
SPN	102	Beginning Spanish II	5
SPN	201	SPN Grammar & Composition I	3
SPN	202	SPN Grammar & Composition II	3
SPN	281	Readings in Hispanic Civ. I	3
SPN	282	Readings in Hispanic Civ. II	3
SPN	301	Advanced Grammar & Conversation	3
SPN	302	Advanced SPN Composition & Conversation	3
SPN	311	Survey of Spanish Literature	3
SPN	312	Survey of Spanish-American Literature	3
SPN	360	Literary Theory Trends in Spanish and American Literature	3
SPN	493	Senior Seminar	3
Spanish Electives			13
		TOTAL	53

Specific Requirements for the Spanish Minor

SPN Courses		Titles	Credits
SPN	101	Beginning Spanish I	5
SPN	102	Beginning Spanish II	5
SPN	201	Spanish Grammar & Composition I	3
SPN	202	Spanish Grammar & Composition II	3
SPN	211	Intermediate Spanish Conversation I	2
SPN	212	Intermediate Spanish Conversation II	2
SPN	281	Readings in Hispanic Civilizations I	3
SPN	282	Readings in Hispanic Civilizations II	3
		TOTAL	26

Specific Requirements for the French Minor

FRN Courses		Titles	Credits
FRN	101	Beginning Spoken French I	4
FRN	102	Beginning Spoken French II	4
FRN	201	Intermediate French I	4
FRN	202	Intermediate French II	4
French Electives Above 300*			7
* (Preferably through foreign exchange program)			
		TOTAL	23

Specific Requirements for the Italian Minor

ITL Courses		Titles	Credits
ITL	101	Introduction to Italian I	4
ITL	102	Beginning Spoken Italian II	4
ITL	201	Intermediate Italian I	4
ITL	202	Intermediate Italian II	4
Italian Electives Above 300*			7
* (Preferably through foreign exchange program)			
		TOTAL	23

Outcomes Assessment Activities

Assessment of the foreign languages program is the responsibility of the Foreign Languages Program Assessment Committee, consisting of the chair of English and Foreign Languages and three other faculty members. The committee's annual reports evaluating the program and proposing any needed changes are compiled from the following information:

- A central file of course syllabi with representative assignments is maintained by the department for inspection by the committee and other qualified persons.

- Faculty advisers monitor each student's progress towards completing major requirements and meeting the program goals listed in the catalog. Advisers report any problems or deficiencies in the program encountered by the students to the program assessment committee through the department chair.

- All Spanish majors take a senior-year seminar emphasizing professional standards and sharpening the writing and speaking skills students have acquired in other Spanish courses. All students in the seminar will be required to write a senior research paper, one copy of which is submitted to the Program Assessment Committee for review. An exit exam administered prior to admission to the senior seminar tests the students' oral and writing competency and mastery of required reading material.

- The Program Assessment Committee reviews the papers from the senior seminar and the results of the exit exam on an annual basis and prepares an analysis of what is revealed about the program's success.

- The Program Assessment Committee administers a student-satisfaction questionnaire to all senior foreign languages majors and minors each year. A similar questionnaire is sent to recent graduates on a periodic basis.

- The Program Assessment Committee monitors the foreign languages curricula at leading comparable institutions and apprises the department of innovations worthy of consideration.

HISTORY/ POLITICAL SCIENCE/ PHILOSOPHY/GEOGRAPHY DEPARTMENT

Department Chair: B. Spade
Faculty: Aichele, Berardi, Carter, Driscoll, Loats, Nicholl, Otis, Rees, Sandoval, Spade,

The programs in history, political science, philosophy, and geography are intended to provide domains of study both for students who desire knowledge for personal enrichment and for students who desire to apply knowledge toward career objectives. Students who major or minor in the fields of the department should expect to develop and refine knowledge of other cultures and the historical and political development of the modern world. Students should also expect to engage in methodical research. Other expectations of students include the ability to prepare rationally cogent papers and the ability to understand political theories, historical movements, and the connections between each.

Departmental programs not only prepare students for occupations in government, business, education, and industry, but also are central to the university's traditional function of transmitting culture from generation to generation.

HISTORY PROGRAM

The major in history leads to the degree of bachelor of arts (BA) and prepares students for careers in teaching, law, government, and private enterprise, as well as entry into graduate programs.

Program Goals

- To provide students with a general knowledge of history and historical methodology;

- To prepare students, through training in communication skills and in research methods to gain knowledge of a given area of history;

- To prepare students to continue personal study and learning about specific subject areas in the discipline on an independent basis.

- To prepare students to engage in critical thinking; and

- To introduce students to the theoretical frameworks that serve as the foundation of historical scholarship

Expected Student Outcomes

General Requirements

No grade below C is acceptable in the major or minor.

Specific Requirements for the History Major

HIST Courses		Titles	Credits
HIST	101	World Civilization to 1100	3
HIST	102	World Civilization 1100 to 1800	3
HIST	103	World Civilization since 1800	3
HIST	201	United States History I	3
HIST	202	United States History II	3
HIST	300	Historiography	3
HIST	493	Seminar	3
History Electives			15
		TOTAL	36

Secondary Education Track for the History Major

The Secondary Education track for the History Major leads to the degree of bachelor of science (BS) and prepares students for teaching at the middle and high school level.

General requirements: No grade below a C is acceptable in the major, and all requirements of the Teacher Education Program for Secondary and K-12 teaching endorsements must be met.

Specific Requirements for the Education Track in History

HIST Courses		Titles	Credits
HIST	101	World Civilization to 1100	3
HIST	102	World Civilization from 1100 to1800	3
HIST	103	World Civilization	3
HIST	201	United States History I	3
HIST	202	United States History II	3
HIST	300	Historiography	3
HIST	493	Seminar	3
History Electives			15
		TOTAL	36

Other Social Science Courses Required for Certification

Courses		Titles	Credits
ECON	201	Principles of Macroeconomics	3
GEOG	101	Physical Geography	3
GEOG	103	World Regional Geography	3
POLSC	101	American National Politics	3
POLSC	102	State and Local Governments	3
		TOTAL	15

Specific Requirements for the History Minor

HIST Courses		Titles	Credits
Nine hours selected from the following courses:			
HIST	101	World Civilization	3
HIST	102	World Civilization to 1100	3
HIST	103	World Civilization Since 1800	3
HIST	201	United States History I	3
HIST	202	United States History II	3
HIST	211	Colorado History	3
		PLUS	
HIST	300	Historiography	3
History Electives approved by the minor adviser			9
		TOTAL	21

Outcomes Assessment Activities

- Demonstrated proficiency in writing coherent and accurate essays on specific topics within the discipline, as determined by the history faculty.
- Portfolios will be maintained for each student who has declared history as a major or minor. Portfolios will include academic transcripts, major papers written for courses in the discipline, co-curricular data, and other pertinent information. The portfolios will be on file in the department chair's office or with the academic adviser. Updated copies of all course syllabi will be kept in a central file in the department office to enable qualified students to discover how courses are adapted towards program goals.

PRE-LAW PROGRAM

Advisor: Dr. Jonathan Rees

Although a political science or history major, or minor, is not required, students interested in attending law school should consult the department's pre-law adviser as early as possible.

POLITICAL SCIENCE PROGRAM

The major in political science leads to the degrees of bachelor of arts (BA) and bachelor of science (BS), and prepares undergraduates for careers in law, government and politics. Courses in political science also serve to complement the liberal arts core at USC and to prepare students for acceptance into graduate programs leading to professional degrees in law, public administration, or to specialized academic degrees.

While encouraging an exposure to a number of the sub-fields of the discipline, three areas of emphasis are offered in the political science major: public administration and policy, comparative and international politics, and American political institutions and politics.

Program Goals

To prepare students majoring in the discipline to:

- demonstrate a basic understanding of historical, philosophical and empirical foundations of political science;

- demonstrate a general command of knowledge about the American political system, comparative and international politics, the history of political thought, and standard political science research approaches; and

- demonstrate an ability to continue personal study and learning on an independent basis about specific subjects in the discipline.

To prepare students minoring in the discipline to:

- demonstrate a basic understanding of the nature of the discipline; and

- demonstrate a general knowledge and understanding of the American political system and of comparative and world politics.

Expected Student Outcomes

General Requirements

- Students in the major must complete a minimum of 36 semester credit hours in political science, including 15 hours in the political science core. Students are required to earn a grade of C or better in all courses and to maintain a cumulative GPA of 2.500 or better.

- Students in the minor must complete a minimum of 24 semester credit hours in political science, including 6 semester credit hours in the political science core. Students are required to earn a grade of C or better in all courses and to maintain a cumulative GPA of 2.500 or better.

- Electives are selected in accordance with one of four basic emphasis areas in political science: 1) public administration and policy, 2) American political institutions and politics, 3) comparative and inter-national politics, 4) independently designed emphasis in preparation for graduate or professional education.

- A maximum of six credit hours of POLSC 480, Practicum in Politics and Public Service, may be applied towards the 36 hours required for the major, or the 24 hours required for the minor.

- Depending on individual interests and goals, students are encouraged to take one year of foreign language, courses in statistics, and PHIL 204, Critical Thinking.

Specific Requirements for the Political Science Major

POLSC Courses		Titles	Credits
Political science core (required of all majors)			
POLSC	101	American National Politics	3
POLSC	201	Comparative Politics	
		OR	
POLSC	202	World Politics	3
POLSC	240	Political Analysis	3
POLSC	370	Political Thought	3
POLSC	493	Senior Seminar	3
		TOTAL	15

Emphasis in Public Administration and Policy*

Courses		Titles	Credits
POLSC	102	State and Local Government	
		OR	
POLSC	103	Urban Politics	3
POLSC	250	Research Methods in Political Science	3
POLSC	330	Introduction to Public Admin	3
POLSC	340	Public Policy	3
POLSC	490	Practicum in Politics and Public Service	3
MGMT	201	Principles of Management	3
ECON	330	Public Finance (ECON 201/202 Preq.)	3
		TOTAL	21

*Especially appropriate areas for criminal justice, environmental studies, not-for-profit administration and management, and urban and state politics. See a political science adviser for further information.

Emphasis in Comparative and International Politics

POLSC Courses		Titles	Credits
POLSC	201/202	Comparative Politics or World Politics (whichever was not taken in the POLSC Core)	3
POLSC	305	International Relations	3
POLSC	440	Area Studies: Europe	3
POLSC	445	Area Studies: Latin America	3
POLSC	450	Area Studies: Asia and the Pacific	3
POLSC	455	Area Studies: Africa and the Middle East	3
Political Science Elective			3
		TOTAL	21

Emphasis in American Institutions and Politics

POLSC Courses		Titles	Credits
POLSC	102	State and Local Government	
		OR	
POLSC	103	Urban Politics	3
POLSC	250	Research Methods in Political Science	3
POLSC	300	Political Parties and Elections	3
POLSC	340	Public Policy	3
POLSC	405	American Presidency	3
POLSC	411	Legislatures and Legislation	3
POLSC	473	American Political Thought	3
		TOTAL	21

Secondary Education Track for the Political Science Major

Complete course listing for this track may be obtained from a Political Science Program adviser or from the College of Humanities and Social Sciences Office, Psychology 100.

Specific Requirements for the Political Science Minor

POLSC Courses		Titles	Credits
POLSC	101	American National Politics	3
POLSC	201	Comparative Politics	
		OR	
POLSC	202	World Politics	3
POLSC	250	Research Methods in Political Science	3
Political Science Electives			15
		TOTAL	24

International Studies Minor

The political science program coordinates an international studies minor comprised of the following courses.

Lower Division Requirements 12

POLSC	201	Comparative Politics	3
		OR	
POLSC	202	World Politics	3

Six credits of a foreign language at the 200 level or above 6

One three credit elective from the following list 3

Lower Division Electives:

Courses		Titles	Credits
ART	101	Art History Survey I	3
ART	102	Art History Survey II	3
ART	103	Art History Survey III	3
BIOL	121	Environmental Conservation	6
BIOL	121L	Environmental Conservation Lab	3
CS	246	History of Mexico	3
ENG	223	Modern World Literature	3
GEOG	103	World Regional Geography	3
HIST	101	World Civilization to 1100	3
HIST	102	World Civilization from 1100-1800	3
HIST	103	World Civilization from 1800	3
PHIL	120	Non-western World Religions	3
SPN	281	Readings in Hispanic Civilizations I	3
SPN	282	Readings in Hispanic Civilizations II	3

Upper Division Requirements 12

POLSC	305	International Relations	3
POLSC	491	International Organizations	3
		OR	

An area course:

POLSC	440	Europe	3
POLSC	445	Latin America	3
POLSC	450	Asia and the Pacific	3
POLSC	455	Africa/Middle East	3

Six credits of electives from the following list 6

Upper Division Electives

BUSAD	475	International Business	3
ENG	330	Modern European Drama	3
ENG	341	Western World Literature I	3
ENG	342	Western World Literature II	3
FRN	341	Masterpieces of French Literature	3
FRN	381	French Civilization I	3
FRN	382	French Civilization II	3
HIST	362	History of Russia	3
HIST	372	History of Modern China	3
ITL	381	Italian Civilization I	3
ITL	382	Italian Civilization II	3
MKTG	350	International Marketing	3
PHIL	313	History of Philosophy Seminar I	3
PHIL	314	History of Philosophy Seminar II	3
PHIL	315	History of Philosophy Seminar III	3
POLSC	440	Area Study: Europe	3
POLSC	445	Area Study: Latin America	3
POLSC	450	Area Study: Asia and the Pacific	3
POLSC	455	Area Study: Africa/Middle East	3
SPN	311	Survey of Spanish Literature	3
SPN	351	20th Century Spanish Literature	3
SPN	462	19th Century Spanish American Literature	3
SPN	471	Medieval and Golden Age Spanish Literature	3

Outcomes Assessment Activities

- Demonstrated proficiency in writing coherent and accurate essays on specific topics within the discipline, as determined by the political science faculty.

- Portfolios will be prepared for incoming freshmen and/or transfer students with two or more years before graduation. Portfolios will include academic transcripts, major papers written for courses in the discipline, co-curricular data, and other pertinent information. The portfolios will be on file.

PHILOSOPHY PROGRAM

The minor in philosophy complements majors and careers in politics, law, literature, health care, business, technologies, and the liberal arts.

Program Goals

- To provide individual courses as well as an academic minor in general philosophy;

- To help students understand and appreciate the great ideas from philosophy, to see such ideas in relation to the cultural settings, to develop the abilities to think, speak, and write in a clear, analytical manner, and to allow students to develop a viable philosophy of life.

Expected Student Outcomes

General Requirements

Students who wish to minor in philosophy must complete a minimum of 21 credit hours of approved philosophy courses with grades of C or better.

Specific Requirements for the Philosophy Minor

PHIL Courses		Titles	Credits
PHIL	102	Philosophical Literature	3
PHIL	201	Classics in Ethics	3
PHIL	204	Critical Reasoning	
		OR	
PHIL	205	Deductive Logic	3
PHIL	293	History of Philosophy Seminar I	3
PHIL	393	History of Philosophy Seminar II	3
PHIL	493	History of Philosophy Seminar III	3
PHIL	401	Epistemology Seminar	
		OR	
PHIL	402	Metaphysics Seminar	3
		TOTAL	21

Outcomes Assessment Activities

- Students must demonstrate proficiency in writing defenses of theses on philosophical topics as determined by the philosophy faculty. A file of representative samples of philosophical writing by students will be retained to document to qualified persons that students are accomplishing the goal of developing the ability to think and write in a clear analytical manner.

GEOGRAPHY

The department extends classes in Geography primarily for students who wish to gain Colorado teacher licensure. There is no major or minor in Geography, but students majoring in a variety of areas would benefit from the Geography classes; e.g., History and Political Science.

MASS COMMUNICATIONS DEPARTMENT AND CENTER FOR NEW MEDIA

Department Chair: Mullen

Faculty: Anderson, Ebersole, Joyce, Miller, Mullen, Orman

The Mass Communications department and Center for New Media supports the polytechnic role and mission of the university through the introduction and use of technology, while maintaining deep traditional ties within the College of Humanities and Social Sciences. The department offers a pragmatic and professionally oriented program aimed at preparing majors for successful careers in the media and related areas while fostering the essential ethical and aesthetic foundations to make those careers meaningful.

The major in Mass Communications leads to the degrees of bachelor of arts (BA) and bachelor of science (BS). A degree in Mass Communications leads to careers in reporting, writing, editing, public relations, advertising, audio and video production, and interactive multimedia authoring.

Emphasis areas, or sequences, require 21 additional credit hours of course work beyond the mandatory 21-credit hour core for completion of the major. Selected professional courses may have course specific fees. Please consult your adviser.

USC TODAY, the university's weekly newspaper, is published each Wednesday of the regular academic year as a laboratory tool of the Mass Communications department. The newspaper serves the students, faculty and staff of USC in addition to the Pueblo community. Editorial and management positions are awarded each semester after review of all applications from qualified students. The newspaper is funded through advertising revenue. The newspaper's adviser is a member of the Mass Communications faculty.

KTSC-FM is licensed to USC as an educational radio station by the Federal Communications Commission. Operated by the Mass Communications department, the 10,000-watt station serves a 50-mile radius of the campus. Advanced Mass Communications students are involved in daily programming, production, and news. Prerequisites: Declared major or minor in Mass Communications, MCCNM 141 and 150.

KTSC-TV, a Public Broadcasting full-power station affiliated with Rocky Mountain Public Broadcasting and CPB, provides laboratory training and on-campus jobs for television students. Prerequisites: Declared major or minor in Mass Communications, MCCNM 142.

The Center for New Media is a cooperative effort between USC and Pueblo Community College. As such, the Center provides additional resources and experiences for students, including opportunities to work with a digital, six-camera production truck and advanced computer laboratories.

Department Goal

The primary goal of the Mass Communications department/Center for New Media is to offer a pragmatic and professionally oriented program aimed at preparing majors for successful careers in the media and related areas and to prepare students for graduate study as appropriate.

Expected Student Outcomes

General Requirements

- Majors are required to specialize in one of five emphasis areas offered by the department:
  - Advertising
  - Broadcasting (TV or Radio Production)
  - New Media Studies
  - News Editorial-Journalism
  - Public Relations
- Successful Mass Communications majors will demonstrate sufficient knowledge, comprehension and analytical skills by the ability to evaluate specific communication events in the proper context of their emphasis area.
- Each faculty member will keep, in the department's central file, a set of course outlines or syllabi that list the objectives and skills achieved during the semester. This central pool of materials describes the detailed expectations and accountability elements for the Mass Communications/Center for New Media major on a course-by-course basis.
- Writing skills are foundational for the entire program of Mass Communications/Center for New Media at USC. Students are required to maintain a minimum grade-point average of 2.500 through a prerequisite sequence of writing classes beginning with MCCNM 201, 202, 222, and 233 as appropriate to the selected emphasis area. Courses must be satisfactorily completed before advanced work in an emphasis area will be encouraged.
- Consistent with general USC policy, no student enrolled in Mass Communications/Center for New Media courses may accumulate unexcused absences, or arrive late for scheduled classes more often than five percent of the total number of scheduled contact hours without penalty.
- The Mass Communications department believes that grades are valid quantitative indicators of student performance. Students' GPAs in the major or minor will be used by emphasis area advisers for both formative and summary evaluations of majors and minors.
- Students graduating with either a BA or BS degree must achieve a total grade-point average of 2.500 within the major. The GPA will be calculated on all courses with the MCCNM prefix appearing on the student's transcript.
- Students graduating from the University and majoring in Mass Communications/Center for New Media should pass all MCCNM courses with a grade of C or better, but students will not be required to repeat D grades as long as the 2.500 MCCNM grade point average is achieved.

- While it is necessary for Mass Communications/ Center for New Media majors and minors to meet the minimum GPA standards set by the department and the university, it is expected that graduates will exceed these standards.

The Mass Communications/Center for New Media Major:

Specific Requirements for the Mass Communications/Center for New Media Major Core

MCCNM Courses		Titles	Credits
MCCNM	101	Media and Society	3
MCCNM	102	Introduction to Electronic Media.	3
MCCNM	201	News Writing	3
MCCNM	216	Advertising	3
MCCNM	280	Public Relations	3
MCCNM	411	Media Law	3
MCCNM	493	Mass Media Seminar	3
		TOTAL	21

Specific Requirements for the Emphasis in Advertising

MCCNM Courses		Titles	Credits
MCCNM	302	Advertising Writing	3
MCCNM	425	Audience Research Methods	3
MCCNM	430	Integrated Comm. Campaigns	3
MKTG	340	Principles of Marketing	3
MCCNM Electives			9
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in Broadcasting

MCCNM Courses		Titles	Credits
MCCNM	141	Digital Audio Production and Op.	3
MCCNM	142	Digital Video Production and Op.	3
MCCNM	150	Regulation of Telecomm	3
MCCNM	233	Script Writing	3
MCCNM	320	Media Programming	3
MCCNM	350	Advanced Media Lab	3
MCCNM Elective (Radio or TV)			3
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in Public Relations

MCCNM Courses		Titles	Credits
MCCNM	202	Feature Writing	3
MCCNM	311	Copy Editing	3
MCCNM	421	PR Case Problems	3
MCCNM	422	Writing for Public Relations	3
MCCNM	430	Integrated Comm. Campaigns	3
MCCNM	425	Audience Research Methods	3
MCCNM Electives			3
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in New Media Studies

MCCNM Courses		Titles	Credits
MCCNM	132	Web Site Design and Dev	3
MCCNM	141	Digital Audio Production and Ops	3
MCCNM	142	Digital Video Production and Ops	3
MCCNM	238	Multimedia Applications	3
MCCNM	336	Interactive Media and Interface	3
MCCNM	338	Global Communication Systems.	3
MCCNM	382	Digital Media Post Production	3
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in News-Editorial Journalism

MCCNM Courses		Titles	Credits
MCCNM	202	Feature Writing	3
MCCNM	250/350	Media Lab	3
MCCNM	265	History of Journalism	3
MCCNM	305	News Reporting	3
MCCNM	311	Copy Editing	3
MCCNM	445	Reporting Public Affairs	3
MCCNM Electives			3
		TOTAL	21 + 21 Core = 42

Co-curricular Requirements

1) The thrust of the Mass Communications Department/Center for New Media is pragmatic, therefore, all students are encouraged to be involved in opportunities provided by participation in the following media labs:

   - Desktop Publishing and design
   - *USC TODAY* newspaper: News Editorial and Advertising
   - KTSC-FM (on-campus radio station)

- KTSC-TV (on campus PBS affiliated station)
- CNM Productions (remote production truck)
- USC Communique (alumni/foundation newsletter)

The media labs provide the necessary entry to strongly suggested field experience programs. Field placements are not required, but students may earn up to eight credit hours in such internships.

2) In addition, Mass Communications/Center for New Media majors and minors are encouraged to join and participate in additional co-curricular activities on campus and through community and university projects.

Specific Requirements for the Mass Communications/Center for New Media Minor

Students desiring a minor in Mass Communications/ Center for New Media must complete 21-credit hours approved by their minor area advisor and MUST include MCCNM 101 and 201. The minor may not include more than 3 credits of laboratory work and must include at least 6 hours of upper division course work. Minors should provide work samples for inclusion in an academic portfolio. Minors must achieve no less than a 2.0 GPA in MCCNM-prefix courses.

Outcomes Assessment Activities

Each Mass Communications/Center for New Media major or minor is required to complete a diagnostic writing sample during the first year on campus. Writing samples will be evaluated through blind review, scored, and returned to the student. A copy of the writing sample will initiate the student's academic portfolio.

Each major or minor is required to maintain an academic portfolio of all salient work or projects completed while in the department. The department chair, in collaboration with emphasis advisers, will review and evaluate a selection of portfolios in the spring of each year to track student progress.

The Mass Communications department/Center for New Media insists that the academic portfolio demonstrate a pattern of sustained academic growth and development of the major and minor, appropriate to the student's emphasis area.

The academic portfolio should reflect the quality and level of intellectual and scholarly work undertaken by the student while in the department, relative to the qualitative, quantitative, ethical, legal and aesthetic dimensions of the field. The appropriateness of the content is dictated by the student's emphasis area and is prescribed by the individual's adviser.

All academic portfolios will remain in the department's central files for two years after the student's graduation, to enable qualified persons to determine how well student performance measures up to program goals. The department will continue every effort to track graduates in order to gather further indicators of success.

A student may be required to participate in an exit interview during his or her final semester. Students are selected on a random basis from enrollments in the department's capstone course, Mass Media Seminar.

MILITARY SCIENCE (US ARMY)

(Reserve Officers' Training Corps Program)

Professor of Military Science: Lieutenant Colonel Denise Goudreau; Assistant Professors of Military Science: Major Stephen Overton, Major Frank Gray, and, Captain Cindi Basenspiler, Senior Military Science Instructors: Master Sergeant Wayne Crowther

The Army ROTC Program

The focus of this program is to recruit, develop, and commission college-educated men and women to serve in the United States Army. Participants in the program are commissioned as a Second Lieutenant in the Army upon graduation with a bachelor's degree. They will be expected to serve in either the active Army or in the Reserve Components (Army Reserves or Army National Guard) after commissioning.

The program is centered on teaching the principles of leadership. These principles can be applied to positions in the military or in civilian careers. All courses of instruction are designed to develop leadership and management skills as well as enhance the self-confidence and initiative in each student.

Military Science is taken in addition to the required courses for each student's major.

ROTC is a four-year program that is divided into two phases: the Basic Course and the Advanced Course. A Minor in Military Science is available for qualified students.

The Basic Course

The focus for these lower division courses (MS 100/200 courses) is to lay a foundation for more advanced instruction in the skills needed to be a successful leader. Students may participate even if they do not plan on receiving a commission in order to gain experience in leadership and management.

This phase is open to all qualified students (generally freshmen and sophomores). Students should be aware that there are some physical requirements for successful course completion. There is no military obligation for participation unless a student is receiving an Army ROTC scholarship.

Sophomores wanting to complete the Basic Course requirements so that they may enter the Advanced Course can compress the Basic Course and/or attend Basic Camp. For further information please contact the Department of Military Science.

The Advanced Course

The Advanced Course (MS 300/400 level courses) is oriented to preparing students who have successfully completed the basic course requirements (juniors and seniors) with the skills and knowledge necessary to be commissioned as a Second Lieutenant in the Army.

The focus continues on building on building leadership skills and abilities.

Students participating in this phase have a contractual obligation to complete the program and enter the Army upon graduation

Students must have a minimum of four semesters remaining in their course work before graduation in order to participate and they must be in a full-time status (12 credit hours per semester) during that time

Credit for the Basic Course for entry into the Advanced Course may be achieved in a number of ways. The normal progression is to successfully complete all four Military Science classes (MS 101, 102, 201 and 202) with a grade of "C" or better. Students can also enter the course laterally by receiving credit for one of the following:

- Prior enlisted service in the Army, Air Force, Navy or Marines
- Participation of a minimum of three years in a JROTC program.
- At least one year as a service academy cadet
- Successful completion of the Army ROTC Basic Camp (CAMP CHALLENGE). This training is available to students who did not have the opportunity to participate in any of the above programs. The five-week camp is conducted every summer at Fort Knox, KY.

Participants receive pay while attending. The Army pays travel and some other expenses. Students who participate are not obligated to enter the ROTC program. For more information contact this department.

Course Offerings

Basic Course

Courses	Titles	Credits
MS 101	Fundamental Concepts of Leadership (F)	1
MS 102	Basic Leadership (S)	1
MS 201	Advanced Leadership (F)	2
MS 202	Tactics and Officership (S)	2

Advanced Course

Courses	Titles	Credits
MS 301	Fundamentals of Military Leadership and Training I (F)	3
MS 302	Fundamentals of Military Leadership and Training II (S)	3
MS 303	Advanced Camp (SU)	6
MS 401	Leadership, Management and Ethics (F)	3
MS 402	Transition to Lieutenant (S)	3
MS 485	Special Studies in Leadership(F/S)	3

The Military Science Minor

A minor in Military Science is available for students participating in the Army ROTC Program. Participants must achieve a minimum of 21 credit hours by graduation, which includes credit for all Advanced Course classes (to include graduation from Advanced Camp) and completion of the Military History requirement. More information about the minor is available through the Department of Military Science.

Professional Military Education (PME) Requirements

To graduate with a minor in Military Science and receive a commission as a Second Lieutenant in the U.S. Army, students must complete courses in the following areas to receive credit for their Professional Military Education (PME) requirements. Two of these course areas are also institutional requirements. Further information of this requirements will be provided to the students during contracting.

- Computer Literary
- Written and Oral Communication
- Military History

Scholarship Information

The Army ROTC Scholarship Program provides financial assistance for the education and training of highly motivated men and women who desire to pursue careers as commissioned officers in the U.S. Army after graduation with a bachelors degree. Four-three and two-year scholarships are available to qualified candidates. The scholarship pay for school tuition,, books, certain fees, and provides the student with a monthly, tax-free stipend of not less than $250.00 per month for up to 10 months per year. For more information pertaining to scholarships and enrollment eligibility please contact the Department of Military Science.

MUSIC DEPARTMENT

Department Chair: Beck
Faculty: B. Beck, Chi, De Witt, Duncan, Eberhardt, King, Veronika String Quartet

It is the mission of the music department to instill in students an understanding of both traditional and technological musical approaches as a basis for aesthetic, ethical, social, academic and cultural ways of thinking, creating/composing, improvising, performing and researching. The major leads to a degree of bachelor of arts (BA) with multiple emphasis areas: music education (K-12), music performance, and various liberal arts focus areas. Relevant skills, which provide excellent preparation for professional careers in teaching, the music industry, performance, composition, multi-media and music technology are emphasized. The department has been accredited by the National Association of Schools of Music since 1963.

Department Goals

- To educate students in the fields of music performance, education, theory, history and technology, (including Internet applications) and various focus areas of the ever-changing music industry.

- To develop increased aesthetic, global, and multicultural awareness, and the capacity to evaluate diverse music activities. Currently, two professional music tracks and multiple liberal arts focus areas address the above goals: professional degree in music education, professional degree in music performance, liberal arts degree in music.

- The music curriculum prepares students with a knowledge of the various methodological systems contained within the broad field of music education and a knowledge of current and emerging pedagogical trends and paradigms directly affecting the teaching and performance of music. Students attend a variety of performances and are exposed to a diversity of musical experiences during their studies at the University. A minor in music is also available.

Expected Student Outcomes

General Requirements

- Students are required to complete all major and minor courses with a grade of C or better and to maintain a cumulative GPA of 2.500 or better.

- A BA degree with an emphasis in music education K- 12, music performance of the various liberal arts tracks are excellent preparation for a wide variety of careers and a large number of graduate programs, including those of major universities and professional schools and conservatories. Music majors must complete the department's MUS 110 Career Planning in Music course and design an individualized career plan prior to the beginning of the senior year. The course also assists music minors in career choices.

- The ability to think across disciplines contributes significantly to the educational experience. Music majors must successfully complete an approved minor or area of concentration in a discipline other than music with a cumulative GPA of 2.500 or better. For the music education emphasis, education is the appropriate minor.

- Literacy and quantitative skills are prerequisite to advanced study or careers. Appropriate academic music courses for majors will require students to demonstrate the abilities to compose, sequence, digitally edit, and perform musical compositions at computer/synthesizer workstation and to demonstrate basic word-processing skills.

- The attainment of minimum performance skills is required to participate successfully in an ever-changing and competitive world. The minimum *Performance Standards*, which appear on the music department's web site: http://chass.uscolo.edu/music, provide representative examples of music literature and repertoire and must be successfully completed for each of the musical areas of concentration.

All music majors must apply for admission to Upper Division (Junior-level) study leading to the specific degree which he/she wishes to pursue. In addition, **all music majors** will be required to complete successfully the piano proficiency requirement.

- Knowledge of specific subject areas, as identified by the Colorado Department of Education and recommended by the National Association of Schools of Music, in music education, music theory, music history, music technology, and music performance will be measured through outcomes-testing. An organized portfolio for each student will be maintained by the music department.

Specific Requirements for the Music Major

MUS	Courses	Titles	Credits
MUS	105	Intro to Music and Computers	1
MUS	110	Career Planning In Music	1
MUS	121	Music History I	3
MUS	122	Music History II	3
MUS	161/162*	Applied Major/Minor	2/4
MUS	147/147**	Functional Piano Class/ Proficiency	1/2
MUS	170-4;182	Major Ensemble/ Lab Band (4 semesters)	4
MUS	185	Symposium (4 semesters) (S/U)	0
MUS	201/L	Theory I/Lab I	4
MUS	202/L	Theory II/LabII	4
MUS	261/262*	Applied Major/Minor	2/4
MUS	301/L	Music Theory III/Lab III	4
MUS	302/L	Theory IV/Lab IV	4
MUS	305	Computer and Electronic Technology in Music	1
MUS	321	Music History III	3
MUS	322	Music History IV	3
MUS	349	Conducting I, Choral	2
MUS	361/362*	Applied Major/Minor	2/4
MUS	370-4;382	Major Ensemble (2 semesters)	2
MUS	385	Symposium (2 semesters) (S/U)	0
MUS	400	Orchestration	3
		TOTAL	49-56

*Music Ed K-12 Majors are only required to take ½ hr. private lessons; MUS 163, 164; 263, 264, 363, 364.
**MUS Ed K-12 must pass Piano Proficiency.

Additional Specific Requirements for the Music Education Major K-12 (Professional Track)

MUS	Courses	Titles	Credits
MUS	144	Woodwind Class	1
MUS	145	Brass Class	1
MUS	241	String Class	1
MUS	242	Percussion Class	1
MUS	246	Voice Class	1
MUS	350	Conducting II, Instrumental	2
MUS	351	Teaching Mus in the Elem School.	1
MUS	377	Materials & Tech of Teaching Choral Music	1
MUS	378	Materials & Tech of Teaching Instrumental Music	1
MUS	385	Symposium (1 semester) (S/U)	0
MUS	463	Applied Minor/ Lesson	1

Two additional semester hours are required of piano K-12 majors.

MUS	347	Piano Pedagogy	2
		TOTAL	13

For the teaching endorsement requirements for K-12, see the *Center for Teaching, Learning and Research* section of this catalog.

Additional Specific Requirements for the Music Performance (Professional Track)

MUS	Courses	Titles	Credits
MUS	350	Conducting II, Instrumental	2
MUS	370-4;382	Major Ensemble (2 semesters)	2
MUS	385	Symposium (2 semesters) (S/U)	0
MUS	461/462	Applied Music	4
MUS	384	Junior Recital	1-4
MUS	484	Senior Recital	1-5
For Piano Majors:			
MUS	324	Piano Literature	2
MUS	347	Piano Pedagogy	2
		TOTAL	14/21

Additional Specific Requirements for the Music Performance (Liberal Arts Track)

Upper-division Music Electives			12/14
		TOTAL	12/14

Specific Requirements for the Music Minor

MUS Courses		Titles	Credits
MUS	110	Career Planning In Music	1
MUS	118	Music Appreciation	3
MUS	147	Functional Piano Class	1
MUS	170-4;182	Two semesters of large ensemble	2
MUS	185	Symposium (4 semesters)	0
MUS	201/L	Theory I/Labl	4
MUS	202/L	Theory II/Lab II	4
MUS	263	Applied Minor Lesson	1
MUS	264	Applied Minor Lesson	1
MUS	363	Applied Minor Lesson	1
MUS	364	Applied Minor Lesson	1
MUS	349	Conducting I, Choral OR	
MUS	350	Conducting II, Instrumental	2
MUS	370-4;382	Two semesters of large ensemble	2
		TOTAL	23

Co-curricular Requirements

Prior to graduation, students must document evidence of participation in student music organizations, musical performance groups, music-related employment or experiences, or other activities related to the program of study in music.

Outcomes Assessment Activities

- Students must prepare a senior music thesis/writing project and give a performance recital or composition recital to a committee of peers and faculty by their final semester of enrollment. The music thesis/ writing project and/or musical compositions must be bound and the recital must be recorded for inclusion in the music department's library collection.

- Students must document proof of having submitted for juridical criticism a minimum of three different projects and/or recitals before the end of classes in their final semester of enrollment.

- Advisers will supervise the development of portfolios for a cross section of music majors. Portfolios will contain evidence of the projects and recitals, and relevant curricular and co-curricular activities.

PSYCHOLOGY DEPARTMENT

Department Chair: S. Krinsky
Faculty: Cameron, Frankmann, R. Krinsky, Kulkosky, Levy, Madrid, Mo, Pratarelli, Yescavage

Psychology is a field of inquiry which is sometimes called the science of the mind, or the science of behavior and answers questions about how and why organisms behave as they do. The field of psychology is enormous with many subfields. Some areas pertain to animals, while others are focused on the behavior of humans. Still other areas focus on, abnormal behavior or complex social and emotional behavior while the cognitive area studies how people perceive, learn, remember, and think.

Psychology is a discipline based on theoretical perspectives and information gained through research. Therefore, the psychology major is based on understanding theory as well as learning the methods of inquiry, evaluation, and drawing appropriate conclusions, skills which are useful for problem solving in many applied settings. Many employment opportunities exist for bachelor's degree holders.

The bachelor's degree program in psychology at U.S.C. offers a curriculum which provides the student with an overview of the major areas within psychology, along with the opportunity to select courses which fit their personal interests. Through psychology courses at U.S.C., a student can enhance their career opportunities and/or gain an academic grounding for professional and graduate training.

Students who seek careers as professional psychologists should consider studies at the graduate level

Students are encouraged to take advantage of many opportunities in the psychology department including career-related field placements and both laboratory and field-based research. There is a local chapter of Psi Chi, the National Honor Society in Psychology, which encourages students to maintain excellence in scholarship. Students are encouraged to participate in both Psi Chi and the Psychology Club.

Expected Student Outcomes

- Psychology graduates should have factual knowledge about significant theories, issues, and methods of inquiry. They should be able to compare the major theoretical perspectives represented in psychology.

- Psychology graduates should have acquired the skills needed to comprehend basic psychological concepts such as critical thinking, statistical thinking, the need for control groups, not confusing correlation with cause, and identifying valid and invalid conclusions based on empirical evidence.

- Graduates should be able to read and write complex prose to comprehend journal articles, and to present a coherent and persuasive argument on a psychological topic.

- Graduates should have skills of information gathering and synthesis including appropriate use of library and internet materials and the ability to derive conclusions after surveying a variety of sources.

- Psychology graduates should be able to demonstrate an understanding of theoretical biases, especially as they relate to minority groups and sexist thinking.

- Students should gain practical experience in the form of relevant volunteer activities, field experience, work experience, or research assistantships.

Requirements

A total of 42 hours in psychology is required for the major. Each psychology major **must** consult a faculty adviser who will assist in selecting additional hours of psychology courses to complete the major.

Basic Core Requirements

PSYCH Courses		Titles	Credits
PSYCH	100	General Psychology	3
PSYCH	201	Introduction to Data Analysis	3
PSYCH	202	Data Analysis Methods	2
PSYCH	301	Intro to Psych Experimentation	3
PSYCH	302	Psychology Experimentation Methods	2
PSYCH	401	History & Systems of Psychology	3
Electives			26
		TOTAL	42

Prerequisites

Students should be aware that there are prerequisites to some courses. For instance, it is important to note that 2 years of high-school algebra (or equivalent) is the prerequisite for Psychology 201 & 202. Successful completion of Psychology 201 & 202 is the prerequisite for Psychology 301 &n 302. Psychology 401 should not be taken until the senior year, preferably in the last semester before graduation.

Note:

A maximum of 6 credit hours of field experience and/or individual projects may be applied towards the 42 total hours required.

General Education

General Education requirements are to be taken outside of the major. Therefore, students who major in psychology may not use psychology courses for general education without permission from their advisor and the department chair.

Breadth Requirement

Psychology majors must take one upper-division course from each Emphasis Area.

Optional Emphasis Area

In order to fulfill the major requirements, students can choose courses from all three Emphasis Areas listed below or they may choose to focus on one Emphasis. Students selecting an Emphasis will complete 12 credit hours from the course listed in that area. Please note that choosing an Emphasis Area is purely optional and not required.

Upper Division Requirement

Psychology majors must take a minimum of 24 credits of upper-division coursework in psychology.

GPA

A minimum grade of C is required in all psychology courses counting toward the psychology major.

Emphasis Area I Educational/Developmental Psychology (Select 12 credits)

PSYCH	205	Sport Psychology	3
PSYCH	251	Infancy, Childhood & Preadolescence	3
PSYCH	252	Adolescent Psychology	3
PSYCH	253	Psychology of Adulthood and Aging	3
PSYCH	335/L	Motivational/Lab	4
PSYCH	342	Educational Psychology	3
PSYCH	351	Psychology of The Exceptional Individual	3
PSYCH	353	Advanced Child Psych	3
PSYCH	465	Behavior Modification	3

Emphasis Area II
Mental Health (Select 12 credits)

PSYCH	231	Marriage, Family and Relationships.	3
PSYCH	311	Theories of Personality	3
PSYCH	362	Abnormal Psychology	3
PSYCH	381	Principles of Psychological Testing..	4
PSYCH	463	Psychopathology of Childhood	3
PSYCH	464/L	Counseling and Psychotherapy/Lab	4
PSYCH	465	Behavior Modification	3
PSYCH	475	Group Process	3
PSYCH	484	Diagnosis and Assessment	3
PSYCH	494	Field Experience	3-6

Emphasis Area III
Experimental (Select 12 credits)

PSYCH	314	Environmental Psychology	3
PSYCH	315	Organizational & Administrative Psych	3
PSYCH	331/L	Physiological Psychology/Lab	4
PSYCH	334/L	Perception/Lab	4
PSYCH	336/L	Learning/Lab	4
PSYCH	337	Memory and Cognition	3
PSYCH	352	Social Psychology	3
PSYCH	410	Advanced Data Analysis	3
PSYCH	420	Evolutionary Psych	3
PSYCH	466	Psychology of Biofeedback	3

Requirements for the Psychology Minor

- Twenty credits of psychology, which must include PSYCH 100 and nine credits of upper-division coursework. Credits in PSYCH 494 and 496 do not count toward the minor. A maximum of three credits of PSYCH 495 may count towards the minor if the project undertaken is research based.

- A minimum grade of C in all psychology courses counting toward the minor.

Psychology Emphasis for Elementary Education Majors

In addition to Psychology 151 and 342 which are required of all Teacher Education majors, the following courses will fulfill the requirements for the emphasis area in Psychology which has been approved for Elementary Education only.

Course	Title	Credits
Psych 251	Child Psychology	3

This course is required of all Elementary Education majors who choose Psychology as an emphasis area.

Select nine credit hours from the following list..... 9

Courses	Titles	Credits
PSYCH 220	Drugs and Behavior	3
PSYCH 337	Memory & Cognition	3
PSYCH 353	Advanced Child Psych	3
PSYCH 465	Behavior Modification	3

Career/Employment for Psychology Majors

Psychology is a diverse field with hundreds of career paths. Some specialties, like caring for mentally ill people, are familiar to most of us. Others, like studying how we know and remember things, are less well known.

Across the nation, psychology is the second most popular undergraduate major, even though many majors may not be interested in psychology as a career. Only 10 percent pursue graduate training. Most find jobs in administrative support, public affairs, education, business, sales, service industries, health, the biological sciences, and computer programming. With a bachelor's degree in psychology they work as employment counselors, correction counselor trainees, interviewers, personnel analysts, probation officers, and writers.

Psychology majors cite courses in the principles of human behavior as especially important to life after college. Additional insight gained from these courses into what motivates people to perform at their peak helps them, whether they are functioning as parents at home, coaching athletics, or managers on the job. Training in the scientific method - the need to do thorough, objective research, analyze data logically, and put forth the findings with clarity - stands psychology majors in good stead as they pursue future careers. Employers find that psychology graduates also possess strong people skills, and psychology majors also value these skills themselves.

SOCIAL WORK DEPARTMENT

Department Chair: Amundson
Faculty: Baca, Gonzales, Mertlich, White
Temple-Gipp

Social work is a professional field dedicated to helping individuals, families, groups, institutions and communities meet basic human needs and enhance their quality of life. The generalist curriculum, which leads to the bachelor of social work (BSW) degree, prepares students for employment in public and private agencies and community programs. The applied nature of social work practice builds upon a strong liberal arts base.

Course work in the junior and senior year focuses on skill development and application in a 448-hour field placement. Students select placements in a wide variety of settings such as hospitals, corrections facilities, child welfare agencies, community agencies, and mental health centers, to name a few. The program also prepares students for admission to graduate programs, many of which offer USC graduates advanced standing or equivalent credit of up to one year. The program is accredited by the Council on Social Work Education. The program also offers a collaborative MSW degree with Colorado State University, with a specialization in advanced generalist practice. Further information on the degree may be obtained by contacting the social work program faculty at USC.

SOCIAL WORK PROGRAM GOALS

The primary goals of the social work program are to:

- prepare students for entry-level generalist social work practice;
- prepare students for graduate-level social work education; and
- maintain accreditation of the social work major as defined by the Commission on Accreditation, Council on Social Work Education.

General Requirements

- Graduates are expected to possess and demonstrate the generalist skills and knowledge necessary for beginning social work professional practice with an understanding and appreciation of the cultural diversity of the Southwest.
- Graduates are required to complete an approved program of courses described below with a minimum cumulative overall GPA of 2.000, a minimum GPA of 2.500 within the major, and no lower than a grade of C in every course required for the social work degree.
- Graduates are expected to demonstrate social work values and ethics in their work as professional students. Flagrant violation of the Code of Ethics may be grounds for dismissal from the program.
- Graduates are required to complete a minimum of 52 semester credit hours in social work courses (see specific courses listed below).
- Graduates are required to spend at least 448 hours of supervised field experience in a community agency under the supervision of a professional social worker (SW 488, 489).
- Graduates are required to complete 21 semester hours in courses that support the knowledge base and skills for social work.
- Majors must complete and have an approved upper level review prior to enrolling in 300 and 400 level courses.

Specific Requirements

SW Courses		Titles	Credits
SW	100	Introduction to Social Work	3
SW	201	Human Behavior & Social Environment I	3
SW	202	Human Behavior & Social Environment II	3
SW	205	Social Welfare in the U.S.	3
SW	222	Intro to Social Work Practice	3
SW	320	Human Diversity in Practice	3
SW	322	Social Work Intervention I	3
SW	323	Social Work Intervention II	3
SW	324	Social Work Intervention III	3
SW	340	Social Work Theory	3
SW	350	Social Welfare Policy	3
SW	430	Social Work Research	3
SW	481	Field Seminar I	3
SW	482	Field Seminar II	3
SW	488	Field Placement I	5
SW	489	Field Placement II	5
		TOTAL	52

Other Requirements

CS	101	Intro to Chicano Studies	3
PSYCH	100	General Psychology	3
SOC	101	Intro to Sociology	3
A course covering human biology			3
An economics or political science course			3
A course covering women's studies			3
A course in basic statistics			3
		TOTAL	21

Electives:

SW	105	Understanding Human Diversity	3
SW	490	Special Projects	3
SW	491	Special Topics	3
SW	495	Independent Study	3

Outcomes Assessment Activities

- Field placement experience and evaluation, conducted in the senior year, is a major component of student assessment. The evaluation focuses upon the application and demonstration of knowledge and professional skills within the context of a community human service agency setting. Field evaluations are shared with students each semester of field placement and form the final assessment of competency for beginning professional social work practice.

- Periodic assessment of student admissions into graduate programs will be conducted.

- A representative sample of student portfolios, field placement evaluations and other supporting documentation will be maintained for a period of five years to assure the availability of a body of evidence that qualified external examiners might inspect.

- A formal system of surveying BSW graduates and employers is used to inform curriculum development.

SOCIOLOGY/ANTHROPOLOGY/ SOCIAL SCIENCE DEPARTMENT

(Including Criminology)

Department Chair: W. Wright

Faculty: Calhoun-Stuber, Forsyth, Gomme, Green, Keller, Martinez, McGettigan

The programs in sociology, anthropology and social science are intended to increase the student's knowledge of social organization and social relationships, knowledge that can be applied to many career objectives in government and business.

SOCIOLOGY

Sociology is the study of human social behavior and is concerned with conditions such as crime and delinquency, family problems, social inequality, and organizations in contemporary industrial society. Sociologists are interested not only in understanding social issues and institutions, but also in resolving social problems.

As an applied program, the major prepares students to work in a wide variety of occupations, including education, government, business, industry and private human service agencies. They are employed in such areas as health care, youth services, drug rehabilitation, law enforcement, corrections, probation, and counseling. Students may receive a general sociology degree, or they may specialize within the criminology emphasis area and receive a sociology/criminology degree.

The major in sociology leads to the bachelor of arts (BA) and the bachelor of science (BS). The BS is designed for those pursuing an applied, career-oriented program, while the BA requires a foreign language. Both degrees prepare students for graduate studies and applied careers.

SOCIOLOGY PROGRAM GOALS

- Graduates will be able to compare and contrast the major theoretical perspectives that inform modern sociological analysis.

- Graduates will be able to apply a range of research methods in conjunction with sociological theory in order to explain and analyze complex social relations and organizations.

- Graduates will be able to apply social analysis to the substantive social area of their emphasis: criminology or general sociology, and will be able to present findings in a clear, understandable and concise manner.

- Graduates will be able to engage in critical thinking about the relationship between social and personal experiences.

- Minors will have an understanding of the significant theories, issues and methodologies of the discipline.

- Minors will have an understanding of the impact of social processes and institution on personal experiences.

Expected Student Outcomes

General Requirements

- Successful completion of the sociology core;

- Successful completion of the general or the criminology emphasis areas;

- No grade below a C in sociology courses is acceptable for the major or the minor; and

- Completion of at least 36 credit hours in approved sociology courses.

Specific Requirements for the Sociology Major

CORE

SOC Courses		Titles	Credits
SOC	101	Introduction to Sociology	3
SOC	210	Techniques of Analysis	3
SOC	310	Social & Cultural Theory	3
		TOTAL	9

General Emphasis

Students will complete the above core (9 hours) and then will select at least 27 additional credit hours of sociology courses, which may include six hours from anthropology. Courses must be approved by the adviser. At least 12 hours must be upper-division courses (300- 400 level).

Criminology Emphasis

Students will complete the three (above) core sociology courses plus three (below) criminology core courses. Further, they will complete 18 hours (six courses) of criminology electives.
Criminology electives are indicated by * in the list of all sociology courses below:

Criminology core courses: (9 hours)

SOC	203	Criminal Justice System	3
SOC	303	Criminology	3
SOC	306	Delinquency & Juvenile Justice	3

Sociology courses (*indicates criminology elective)

SOC	101	Introduction to Sociology
SOC	105	Understanding Human Diversity
SOC	155	Minority and Ethnic Relations*
SOC	201	Social Problems*
SOC	203	Criminology Justice System*
SOC	206	Gender & Society
SOC	231	Marriage & Family Relations
SOC	302	Collective Behavior and Social Movements
SOC	303	Criminology*
SOC	305	Crime and Women*
SOC	306	Delinquency & Juvenile Justice*
SOC	308	Popular Culture
SOC	351	Social Deviance *
SOC	352	Social Psychology
SOC	353	Penology*
SOC	355	Political Sociology
SOC	356	Social Stratification*
SOC	358	Film & Society
SOC	359	Community Corrections *
SOC	401	Health, Culture, & Society
SOC	402	Aging, Culture, & Society
SOC	403	Human Sexuality and Social Behavior
SOC	404	Poverty *
SOC	405	Law and Society *
SOC	406	Sociology of Small Groups
SOC	407	Family Violence *
SOC	408	Science, Technology, & the Future
SOC	409	Victimology *
SOC	410	Structural & Elite Crime *
SOC	411	Police and Society *
SOC	412	Occupations & Professions
SOC	413	Homicide *
SOC	420	Criminological Theory *
SOC	430	Industrial Organization *
SOC	431	Work in Modern America *
SOC	432	Organization Theory *
SOC	451	Culture, Deviance, & Psychopatholgy*
SOC	452	Self and Society
SOC	453	Sociology of the Body
SOC	491	Special Topics * (see advisor)
SOC	492	Research Methods *
SOC	494	Field Experience* (see advisor)
SOC	495	Independent Study

Specific Requirements for the Sociology Minor

Minors in sociology require a minimum of 20 semester hours, of which six hours must be upper division. SOC 101 is required. No grades below C are accepted toward the minor.

Co-curricular Requirements

Generally there are no co-curricular requirements, although students with an emphasis in criminology are encouraged to complete an internship in a community corrections-type agency or program.

Outcome Assessment Activities

- Completion of all required courses.
- The department believes that grades are one valid indicator of the quality of student work. No grade below C will, therefore, be accepted toward the major or minor.
- Student achievement will be assessed in the outcome areas on the basis of a standardized national achievement test.
- For the sociology minor, grades will provide a valid measure of student performance. The department will examine and maintain records of grades of students minoring in sociology as one means of assessment.

ANTHROPOLOGY

The anthropology minor provides students with an informed understanding of the cultural diversity evident in human societies and the concepts by which anthropologists explain cultural dynamics. The program emphasizes a holistic awareness of the relationships of all the parts of social and cultural systems. The program prepares students to understand anthropological methods and theories and to apply them to academic as well as to life experiences.

ANTHROPOLOGY PROGRAM GOALS

- Students will be able to deal with intellectual problems and engage in critical thinking in a lucid fashion, reflecting logical inquiry and knowledge of pertinent information.
- Students will possess knowledge and experience of cultural and sub-cultural groups other than their own.
- Students will achieve an understanding of a spectrum of anthropological sub-divisions and will be knowledgeable in at least two areas.

Specific Requirements for the Anthropology Minor

The minor consists of 21 semester hours of anthropology courses; ANTHR 100 is required, and six hours must be upper division. The rest of the courses may be based upon the student's interest. No grades below C are accepted toward the minor.

Outcome Assessment Activities

- The assessment of anthropology students' progress is a continuing process from matriculation to graduation.

SOCIAL SCIENCE PROGRAM

The interdisciplinary major in social science leads to the degrees of bachelor of arts (BA) and bachelor of science (BS).

Social scientists study people and social institutions, especially the relationships and impacts they have with and on each other. Research in the social sciences provides insights that help in understanding the ways in which individuals and groups make decisions, exercise power or respond to change. Social scientists gather and analyze data, interpret it and make it meaningful and useful for application in dealing with human problems.

Employment has traditionally been in the academic area; however, as the economy continually changes from an industrial to a service-oriented system, a greater need for "people-oriented" specialists is developing. Job opportunities in applied fields include areas such as program management and administration, residential counseling, service supervision, human services and sales and related work -- in both the public and private sectors. Related careers are: teaching, social work, corrections/criminology, social and educational administration, law and mass communications.

Program Goals

- Prepare students to function as knowledgeable and responsible individual citizens in society;
- Prepare students for leadership roles within the broader society;
- Instill in students a broad understanding of the major disciplinary approaches to the study of social life, including economics, history, sociology, geography, and political science;
- Prepare students for participation in modern social institutions, as well as for the coming changes and conflicts within those institutions;
- Instill in students an awareness of and appreciation for the cultural and ethnic diversity of modern society.

Expected Student Outcomes

General Requirements

- No grade below C is acceptable in the major or minor.
- A prerequisite of a 2.5 cumulative GPA in the major is required for student teaching.

Specific Requirements for the Social Science Major

General Track Credits

Social Science core	21
Specialty Core (Upper Division)	15

Specific Requirements for the Social Science Minor

- Completion of 21 semester hours of credit in Social Science courses: Anthropology Economics, Geography, History , Political Science, Psychology, Sociology. Six hours must be upper division .

WOMEN'S STUDIES

The women's studies minor is designed to acquaint students with current scholarship on women. The minor is interdisciplinary and multicultural, encompassing classroom and experiential learning, encouraging students to examine relevant questions and issues from a range of perspectives.

Specific Requirements for the Women's Studies Minor

Courses		Titles	Credits
WS	100	Introduction to Women's Studies	3
WS/CS	306	La Chicana	
		OR	
WS/CS	401	Third World Feminisms	3
WS	301	Feminist Frameworks	3
WS	493	Senior Seminar	3
Women's Studies Electives			9
		TOTAL	21

WS Electives:

Courses		Titles	Credits
WS/PSYCH/ SW/POLSC	105	Understanding Human Diversity	3
WS/SOC	206	Gender and Society	3
WS/PSYCH	211	Women and Society	3
WS/PSYCH	212	Sexism and Racism in America	3
WS/NSG	230	Women, Health, and Society	3
WS/PSYCH/ SOC	231	Marriage, Family, and Relationships	3
WS/MCCNM	235	Women and Media	3
WS/CS	240	Chicana Writers	3
WS/ENG	260	Women in Literature	3
WS/SOC	305	Crime and Women	3
WS/CS	306	La Chicana	3
WS/MCCNM	330	Gender and Film	3
WS	335	Gender and Communication	3
WS/CS	401	Third World Feminisms	3
WS/SOC	403	Human Sexuality and Social Behavior	3
WS/SOC	407	Family Violence	3
WS/HIST	427	Women in Industrializing Europe	3
WS	491	Special Topics (topics vary)	3

To encourage breadth, no more than two electives may be taken from the same cross-listed discipline. No grade below a C will be accepted in classes counting toward the minor. For advising, students should contact any Women's Studies instructor, or the Women's Studies Coordinator, or any member or the Women's Studies Coordinating Committee, by calling 549-2143.

COLLEGE OF SCIENCE AND MATHEMATICS

Dr. Ernest E. Allen, Dean

Academic Department	Majors	Minors
Biology	Biology (BS)	Biology Professional Biology
Chemistry	Chemistry (BS)	Chemistry
Mathematics	Mathematics (BA, BS)	Mathematics
Physics	Physics (BS)	Physics Physical Science
	Master of Science in Applied Natural Science (MSANS)	

USC offers strong majors in science and mathematics with several options designed to accommodate the varied professional goals of students. Teacher licensure is available in biology, chemistry, mathematics, and physics.

The college's three academic departments and master's degree programs are housed in three buildings of contemporary design which feature modern, air-conditioned classrooms and laboratories equipped with state-of-the-art instrumentation for instruction and research. Ninety-seven percent of the science and mathematics regular faculty hold the doctoral degree.

In addition to offering curricula for students majoring and minoring in their disciplines, science and mathematics courses are offered which provide a foundation for many other degree programs. The programs provide students with learning opportunities to prepare themselves to live effectively in an increasingly complex science-oriented society.

APPLIED NATURAL SCIENCE (MSANS) 3+2 PLAN

A unique and distinct feature of our MSANS program is the 3+2 plan. The main goal of the 3+2 plan is to give the opportunity to qualified advanced-level undergraduate students to simultaneously pursue both the baccalaureate (BS) and master's of science (MS) degrees. Talented students are thus quickly moved toward expanding their academic and scientific horizons based on the student's abilities and personal motivation.

Students in the 3+2 plan are expected to successfully complete both the BS and MS degrees by the end of their fifth year in college; thus, they must have applied and been admitted into the MSANS program by the Spring semester of their junior year or the Fall semester of the senior year. Students applying to the 3+2 plan must have a minimum 3.0 overall GPA and a minimum 3.25 GPA in their subject emphasis area (biology, biochemistry, chemistry, or mathematics - see below).

The application file for admission to the 3+2 plan must include:

1. the completed application form;
2. the USC transcript;
3. two letters of recommendation from USC faculty; and
4. GRE scores (students may be admitted into the 3+2 plan before taking the GRE, but they must submit the GRE scores by the end of their first year into the 3+2 MSANS program plan to remain in the program).

Before they are admitted to the 3+2 plan, students are expected to have completed the following course work depending on the respective emphasis areas:

Biology emphasis area:

Courses		Titles
BIOL	301/L	General Microbiology + Lab
BIOL	351/L	Genetics + Lab
CHEM	122/L	General Chemistry II + Lab
PHYS	202/L	Principles of Physics II + Lab
MATH	221	Applied Calculus
		OR
MATH	156	Statistics

Biochemistry or Chemistry emphasis area:

Courses		Titles
CHEM	121/L	General Chemistry I + Lab
CHEM	122/L	General Chemistry II + Lab
CHEM	301/L	Organic Chemistry I + Lab
CHEM	302/L	Organic Chemistry II + Lab
CHEM	221/L	Inorganic Chemistry + Lab
		OR
CHEM	421/ 521	Advanced Inorganic Chemistry
PHYS	221/L	General Physics I + Lab

PHYS	222/L	General Physics II + Lab
MATH	224	Calculus & Analytical Geometry II
CIS	102	Programming w/Basic
		OR
CIS	121	Introduction to C++ Programming
		OR
EN	105	Fortran

Mathematics emphasis area:

Courses		Titles
MATH	307	Introduction to Linear Algebra
MATH	327	Introduction to Algebraic Systems
MATH	421	Advanced Calculus

The core course requirements and all other requirements for the 3+2 plan are the same as for the regular MSANS program plan. Dual listed courses taken by the 3+2 plan students as 400 level courses may be acceptable as electives to meet the minimum program course load requirements, with the permission of the specific course instructor. Like students in the regular MSANS program plan, students admitted under the 3+2 plan may chose either the thesis or non-thesis program option.

BIOLOGY DEPARTMENT

Department Chair: Thomas

Faculty: D. Caprioglio, H. Caprioglio, Diawara, Gonzales, Herrmann, Martínez, Osborn,

The major in biology leads to a bachelor of science (BS) degree. The biology major is sufficiently flexible for students to prepare for a wide variety of professional careers and carefully supervised career planning is a fundamental concern of the program.

The student majoring in biology may plan to enter the workplace or continue study in graduate school as a professional biologist, or may elect to follow any of the following pre-professional programs: pre-chiropractic, pre-forestry, pre-optometry, pre-physical therapy, pre-occupational therapy, pre-pharmacy, pre-physician assistant, pre-podiatric medicine, pre-veterinary medicine, pre-dentistry, pre-medicine or pre-osteopathic medicine. Frequently, a pre-professional program involves a combination of majors or a major and minor. For example, many pre-medical students choose a double major in biology and chemistry.

Each of the pre-professional programs has an advisor who can provide detailed and current information about the undergraduate work which the student should pursue to provide the foundation necessary for later entry into a professional school. The student should contact the specialized advisor as early as possible. A list of advisors is available in the departmental office.

The university has a guaranteed transfer agreement with the College of Forestry and Natural Resources at Colorado State University (CSU) in pre-forestry and pre-wildlife management. A student who successfully completes the two-year program at USC with a minimum 2.500 grade-point average is guaranteed transfer to the baccalaureate program at CSU. Grades of D and F do not transfer.

Biology majors also may seek teacher certification at either the elementary or secondary level. Each student should obtain a written description of specific degree requirements from the appropriate advisor. Biology students who are considering attending graduate school should take one year of a foreign language and should plan to take the Graduate Record Examination during the senior year.

The biology department also offers several emphasis areas. A few are described below.

The specialization in environmental health is designed to meet the curriculum recommended by the Accreditation Council of the National Environmental Health Association. Satisfactory completion of the curriculum leads to a BS degree in biology.

The emphasis in cell and molecular biology is available to students interested in professions and/or graduate schools which require specialization in molecular biology, cell biology or genetics.

The emphasis in medical technology is available to students majoring in biology and stresses microbiology, immunology, and chemistry. In the senior year, students apply for admission to a hospital school of medical technology, and after receiving the degree from USC, spend a one-year internship in hospital clinical laboratory practice. At the completion of the internship the student sits for a certifying exam and is registered as medical technologist.

Department Goals

- To prepare students to become productive, accountable and responsible employees upon entering the work force.
- To prepare students to enter graduate or professional schools.
- To develop in students a broad-based theoretical foundation supplemented by laboratory and field exercises that allow individual observations, inferences and hands-on experience.
- To allow those students seeking a minor in biology to supplement and reinforce the major field of study.

Expected Student Outcomes

General Requirements

- Students graduating with a BS in biology must have at least a cumulative GPA of 2.000 in the major area. A cumulative GPA of 2.500 in the major area is required for admission to the teacher education program.
- Graduates are required to demonstrate intellectual skills and knowledge in math and supporting sciences.
- Graduates are required to complete an approved minor outside the biology department.
- Biology majors are expected to demonstrate a knowledge of basic laboratory tools used in biology for observation and analysis, phylogenetic relationships, relationships between form and function, and population/ecological dynamics.

Biology graduates are expected to:

1) read critically, think about, and review historical and current literature in the biological sciences;
2) apply basic knowledge of the related fields of chemistry, mathematics and physics to problem-solving in biology;
3) formulate logical hypotheses;
4) design and carry out well-designed, well-controlled tests on scientific hypotheses;
5) have a knowledge of basic biology terminology;
6) have a broad-based background in molecular, cellular and organismic biology; and
7) find information and present it in oral and written reports.

Specific Requirements for the Biology Major

BIOL Courses		Titles	Credits
BIOL	171	Career Planning I	1
BIOL	180/L	Intro to Cell Biology/Lab	4
BIOL	201/L	Botany/Lab	5
BIOL	202/L	Zoology/Lab	5
BIOL	301/L	General Microbiology/Lab	5
BIOL	351/L	Genetics/Lab	4
BIOL	341/L	Vertebrate Physiology/Lab	
		OR	
BIOL	412/L	Cellular Biology/Lab	4
BIOL	447	Career Planning IV	1
BIOL	493	Seminar	1
Approved Electives			15
		TOTAL	45

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
CHEM	301/L	Organic Chemistry I/Lab I	5
CHEM	302/L	Organic Chemistry II/Lab II	5
PHYS	201/L	Principles of Physics I/Lab I	4
PHYS	202/L	Principles of Physics II/Lab II	4
MATH	121	College Algebra	4
MATH	221	Applied Calculus	4
MATH	156	Introduction to Statistics	3
		TOTAL	39

In addition to the biology major, the following emphasis areas are available. Complete course listings and the advisor for each of these emphasis areas may be obtained from the Biology Department Office, Life Sciences, Building 207.

Biology Emphasis Area

Biology, Ecology
Biology, Genetics
Biology, Microbiology
Biology, Molecular & Cellular
Biology/Chemistry
Environmental Health
Environmental Technology
Medical Technology Program
Pre-Chiropractic
-Dental
-Forestry & Wildlife
-Medical & Osteopathic
-Occupational Therapy
-Optometric
-Physician Assistant
-Physical Therapy
-Podiatric
-Veterinary

Teaching

Elementary/Biology
Secondary/Biology
Elementary/Physical Science
Secondary /Physical Science

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Professional Biology Minor

BIOL	180/L	Intro to Cell Biology/lab	4
BIOL	201/L	Botany/Lab	5
BIOL	202/L	Zoology/Lab	5
Approved Upper-division Electives			9
		TOTAL	23

Specific Requirements for the General Biology Minor

Approved Electives	15
Approved Upper-division Electives	8
TOTAL	23

Co-curricular Requirements

There are many opportunities to participate in experiences that will complement and reinforce a student's academic experience. The activities may be either on- or off-campus and may be used to develop leadership and interpersonal skills. The faculty of the biology department actively encourages student participation in such activities.

Outcomes Assessment Activities

Biology Majors

Assessment of students' improvement in intellectual skills, knowledge and capacities from entrance to graduation will be accomplished through the use of several tools. Exams will be used as one measure of the student's proficiency in writing skills, acquisition of knowledge, problem solving and laboratory skills. All majors will take a Senior Seminar that requires oral and written presentations. Seniors will also take the Biology Field Achievement Test which measures USC students against the national norm. In addition, each biology major will develop a portfolio, the responsibility of which will be shared by the student and the adviser. The portfolio will be completed as part of the senior-level career planning course and then reviewed by the student's adviser or another faculty member.

Examples of material that may be included in a portfolio are:

- ACT scores, high school transcripts and college transcripts;
- samples of homework, quizzes, examinations, research reports and lists of developed skills;
- examples of writing, both from the required English courses as well as reports required by courses in life sciences;
- certificates, awards, honors and evidences of co-curricular activities; and
- scores from appropriate examinations such as the GER., MCAT, DAT, ETS, College Base.

Biology Minors

- The faculty of the biology department believe that the course grade would be a measure of the student's grasp of the basics of the course material.
- A written paper will be required in an upper-division class.

CHEMISTRY DEPARTMENT

Department Chair: Vorndam
Faculty: Bonetti, Druelinger, Lehmpuhl, Proctor, Saul, Wilkes

The major in chemistry leads to a bachelor of science (BS) degree and the chemistry curriculum is certified by the American Chemical Society.

The chemistry department strives to provide intellectual and professional training for students in the field of chemistry and in support of the American Chemical Society charter "to encourage in the broadest and most liberal manner the advancement of chemistry in all its branches; the promotion of research in chemical science and industry, the improvement of the qualifications and usefulness of chemists through high standards of education to promote scientific interests and inquiry..."

Chemistry is a foundation science for many professions. Graduates with degrees in chemistry find employment in such diverse areas as biotechnology, health sciences, agricultural and environmental fields, transportation industries, the semi-conductor industry, teaching and research. Consequently, the chemistry department provides students with a number of diverse program options to assure each student versatility and a sound education in the fundamental areas of modern chemistry.

In addition to curricula for students who wish to pursue chemistry as a profession, programs can be designed for pre-professional areas including pre-pharmacy, pre-medicine, pre-dentistry and pre-veterinary medicine.

A core curriculum for the major exists and many options are open to students to combine other interests with a major in chemistry. For example, while medical schools do not mandate any particular major for entering students, biology and chemistry have been the leading majors of students entering medical school. The requirements for a pre-medicine/chemistry major are the same as for the chemistry major option.

Additionally, the student must complete specific courses required by the medical schools to which they are applying. It is recommended that pre-medical and other pre-professional students coordinate the program with the appropriate pre-professional adviser, as well as the chemistry adviser, to assure that specific course requirements are completed.

Program Goals

- To prepare graduates in the discipline of chemistry to become productive members of the profession whether they go on to industry, post-graduate education or other areas.
- To prepare students in the verbal, written and quantitative skills that are prerequisite to advanced study or careers in chemistry.
- To prepare students in the theoretical principals of chemistry as well as in the laboratory approach to problem solving.
- To maintain approval of the chemistry curriculum as defined by the American Chemical Society, Committee on Professional Training.
- To provide the opportunity for a variety of educational programs through the following options:

  1) basic chemistry
  2) ACS certified curriculum
  3) biochemistry
  4) double major
  5) engineering/chemistry
  6) chemistry/teacher certification
  7) chemistry minor

Expected Student Outcomes

General Requirements

- Students majoring or minoring in chemistry are required to have a cumulative GPA of 2.000 or better in their chemistry courses. In addition, students majoring in chemistry must receive a grade of "C"' or better in all core chemistry courses.
- Proficiency in physics, math and computer science is essential for understanding and applying chemical principles; therefore, graduates must complete approved math, physics and computer science courses with an overall GPA of 2.000 or better.
- The ability to think across disciplines contributes significantly to the educational experience as well as the application of chemistry as a profession; therefore, graduates must successfully complete an approved minor or area of concentration such that the overall GPA is 2.000 or better.

- Transfer students are required to earn a minimum of 20 semester credit hours in approved chemistry courses from USC for graduation with a BS degree in chemistry. Transfer students wishing to minor in chemistry must earn a minimum of 10 of the 20 credit hours required at USC.

- Students will be required to successfully complete American Chemical Society exams in general chemistry, organic chemistry, analytical chemistry, physical chemistry and instrumental methods during the course of the chemistry degree curriculum.

- Students will be required to take an exit examination during the senior year, covering the undergraduate chemistry curriculum.

Chemistry graduates are expected to:

1) understand the concept of and be able to apply the scientific method to problem solution;

2) understand classifications of chemical compounds, general reaction types and quantitative aspects of stoichiometry as applied to chemical reactions;

3) apply basic knowledge of related fields such as mathematics and physics to problem solving, methods of analysis and use of numerical data in the chemical sciences;

4) demonstrate a knowledge of basic laboratory skills, methods and equipment used in chemistry for observation and analysis of chemical systems;

5) read, think and write critically and review current literature in the chemical sciences; and

6) exhibit a comprehensive knowledge of the fundamental theories, concepts and skills necessary in the chemical sciences.

Specific Requirements

The following common core is required for all of the chemistry options for the bachelor of science degree:

CHEM Courses		Titles	Credits
CHEM	121/L	General Chemistry/Lab I	5
CHEM	122/L	General Chemistry /Lab II	5
CHEM	221/L	Inorganic Chemistry /Lab	3
CHEM	301/L	Organic Chemistry /Lab I	5
CHEM	302/L	Organic Chemistry /Lab II	5
CHEM	317/L	Quantitative Analysis/Lab	5
CHEM	321	Physical Chemistry I	3
CHEM	322	Physical Chemistry II	3
CHEM	419/L	Instrumental Analysis/Lab	5
CHEM	493	Seminar	1
		TOTAL	40

All options for the chemistry major also require completion of the following institutional and general education requirements:

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Requirements for the Specific Options

- ***Basic Chemistry Option***

Required Chemistry Core			40
CHEM	323	Experimental Physical Chemistry	2
Approved Elective (CHEM or MATH 156)			3
		TOTAL	45

Other Required Courses

Course		Titles	Credits
MATH	126	Calculus and Analytic Geom I	5
MATH	224	Calculus and Analytic Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	20

Institutional and General Education Courses	24
Approved Minor	20
Free Electives	11
TOTAL	55

Total credit hours 120

- ***ACS Certified Option***

Courses		Titles	Credits
Required Chemistry Core			40
CHEM	323	Experimental Physical Chemistry	2
CHEM	411	Biochemistry I	3
CHEM	421	Advanced Inorganic Chemistry	3
CHEM	495	Independent Study	1
Approved Chemistry Electives			6
		TOTAL	55

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geom I	5
MATH	224	Calculus and Analytic Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	20

Institutional and General Education	24
Free Electives	1
Approved Minor	20
TOTAL	45

Total credit hours 120

- ***Biochemistry Option***

Required Chemistry Core			40
CHEM	411	Biochemistry I	3
CHEM	412/L	Biochemistry II/Lab II	5
		TOTAL	48

Other Required Courses

Course		Titles	Credits
MATH	126	Calculus and Analytic Geom I	5
MATH	224	Calculus and Analytic Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	20

Institutional and General Education	21
Biology Minor	23
Approved Electives	8
TOTAL	52

Total credit hours 120

- ***Double Major Option***

Required Chemistry Core	40
Biology/Chemistry Electives	3
TOTAL	43

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
PHYS	201/L	Principles of Physics I/Lab I	4
		OR	
PHYS	221/L	General Physics I/Lab I	5
PHYS	202/L	Principles of Physics II/Lab II	4
		OR	
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	18-20

Institutional and General Education	21
Approved Second Major Minimum	39
TOTAL	60

Total credit hours 121-123

- ***Engineering/Chemistry Option***

Required chemistry core	40

Other Required Courses

Courses		Titles	Credits
CHEM	550	Industrial Chemistry	2
MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
MATH	325	Intermediate Calculus	3

PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
EN	101	Problem Solving for Engineers	3
EN	107	Engineering Graphics	2
EN	343	Engineering Economy	3
Approved Engineering (choose from EN 211, 212, 321, 342, 343, 440, 471, 475, 477)			27
		TOTAL	60

Institutional and General Education 21

Total Credit Hours 121

• *Chemistry/Teacher Certification Option*

Required Chemistry Core			40
CHEM	425	Environmental Chemistry	3
		TOTAL	43

Other Required Courses

Courses		Titles	Credits
BIOL	121/L	Environmental Conservation	4
BIOL	162	Personal Health	3
BIOL	100/L	Principles of Biology I/Lab I	4
GEOL	101/L	Earth Science I/Lab I	4
PHYS	110	Astronomy	3
PHYS	201/L	Principles of Physics I/Lab I	4
		OR	
PHYS	221/L	General Physics I/Lab I	5
PHYS	202/L	Principles of Physics II/Lab II	4
		OR	
PHYS	222/L	General Physics II/Lab II	5
MATH	222	Applied Calculus	5
		OR	
MATH	126	Calculus and Analytic Geom I	5
PSYCH	100	General Psychology	3
PSYCH	151	Human Development	3
ED	202	Foundation of Education	3
ED	280	Educational Media & Technology	3
ED	435	Classroom Management	3
ED	440	Teaching Secondary Science I (BIO/CHEM)	3
ED	441	Teaching Secondary Science II (PHYS/E Sci)	3
ED	445	Applied Educational Assessment And Instruction (K-12)	2
ED	461	Atypical Students in the Secondary School	3
ED	488	Student Teaching Secondary	12
RDG	425	Teaching Reading in Content Areas	3
		TOTAL	68-70

Institutional and General Education 24

Total credit hours 135-137

• *Pre-Professional Emphasis*

Students ultimately seeking professional degrees such as Pharmacy, PharmD, MD, DVM, DO, DDS, and DC, may opt to complete a bachelors, or minor, in chemistry as preparation for future professional studies. A solid understanding of the chemistry and analysis of biomolecules, pharmaceuticals, etc. serves as an excellent foundation for professional programs in the health sciences. Selection of the *Biochemistry* or *Double Major options* is recommended for pre-professional students completing the BS in chemistry. Pre-professional students must work closely with academic advisors to ensure completion of specific curricular requirements needed for admission into specific professional programs.

Chemistry Minor

CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
Upper-division Electives			10
		TOTAL	20

Co-curricular Requirements

Students should experience co-curricular activities which enhance, broaden and reinforce the academic experience; therefore, the faculty support and encourage students to participate in science-related, as well as in general activities such as:

1) science or chemistry clubs
2) student government
3) scientific meetings, seminars, symposia, field trips, tours, etc.

Outcomes Assessment Methods

- Assessment of chemistry majors occurs through examination of GPA in required courses. Majors are required to maintain a 2.000 GPA in major and minor courses as well as in other required courses.

- Students are required to complete American Chemical Society national standard exams in general chemistry, organic chemistry, analytical chemistry and physical chemistry during the course of the chemistry degree curriculum. Scores are compared to national averages to determine if students exhibit a comprehensive knowledge of the fundamental theories and concepts necessary in the chemical sciences disciplinary areas.

- Students are required to take an exit examination during the senior year. The ETS Major Field Examination, covers the undergraduate chemistry curriculum. Scores are compared to national averages to determine if students exhibit a comprehensive knowledge of the fundamental theories and concepts necessary in the chemical sciences overall.

MATHEMATICS AND PHYSICS DEPARTMENT

Department Chair: Derr
Faculty: Allen, Barnett, Chacon, Johnson, Louisell, Lundberg, Nichols, Orr, Soto-Johnson

The major in mathematics leads to the degree of bachelor of arts (BA) or bachelor of science (BS). A flexible curriculum allows students to prepare for graduate school, for teaching careers, or for employment in areas that require mathematics (such as actuarial science, computer science, engineering, or statistics). Faculty advisors work individually with mathematics majors and minors to design programs of study. A list of advisors is available in the departmental office.

Students need to be aware that mathematics courses have prerequisites. Thus, many mathematics courses must be taken in a particular order.

Department Goals

- To provide students with the development of attitude of mind and problem-solving skills required for efficient use, appreciation and understanding of mathematics.

- To provide students with mathematical proficiency necessary to be successful in the study of science, business, economics, engineering, technology, and education.

- To provide majors with quality background in: differential and integral calculus for functions of one and several variables; linear and abstract algebra; probability; and applications of mathematics.

- To prepare mathematics majors for successful transition to business, government, industry, teaching, and/or graduate school.

- To sustain, promote, and support the learning of mathematics in our service area.

- To support and encourage a level of research and scholarly activity commensurate with a high quality mathematics department in a regional university. This will include applied research, fundamental research, educational research, and consulting.

Expected Student Outcomes

General Requirements

- All mathematics majors must complete the mathematics core curriculum: MATH 126, 207, 224, 307, 325, 327, 350 or 256/356, and 421. Majors are expected to complete core courses numbered above MATH 325 at USC.

- All majors must complete a physics course numbered 200 or above.

- Mathematics majors and minors must complete the mathematics courses in their program with grades of C or better.

- MATH 337 is a required elective for all mathematics majors not pursuing secondary education endorsement.

- All majors are required to complete an approved two-semester sequence in a laboratory science (CHEM 121/121L and 122/122L, or PHYS 221/221L and 222/222L).

- Mathematics majors must demonstrate proficiency in a computer language.

Specific Requirements for the Mathematics Major

MATH Courses		Titles	Credits
MATH	126	Calculus and Analytic Geo I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geo II	5
MATH	307	Intro to Linear Algebra	4
MATH	325	Intermediate Calculus	3
MATH	327	Intro to Algebraic Systems	3
MATH	337	Differential Equations I	3
MATH	350	Probability	3
		OR	
MATH	256	Probability for Engineers and Scientists	
		AND	
MATH	356	Stats for Engineers & Scientists	6
MATH	421	Advanced Calculus I	4
Upper-division Electives (Excluding MATH 360, 361, 477)			6
		TOTAL	38-41

Other Requirements

Laboratory Science Sequence	8
Computer Programming	3
TOTAL	11

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to the individual department's curriculum sheet.

Specific Requirements for the Mathematics Major/Secondary Education Endorsement

MATH Courses		Titles	Credits
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	307	Intro to Linear Algebra	4
MATH	325	Intermediate Calculus	3
MATH	327	Intro to Algebraic Systems	3
MATH	330	Intro to Higher Geometry	3
MATH	256	Probability for Engineers & Scientists	
		OR	
MATH	350	Probability	3
MATH	356	Stats for Engineers & Scientists	3
MATH	419	Number Theory	3
MATH	421	Advanced Calculus I	4
MATH	463	History of Mathematics	3
MATH	477	Math & Tech of Teaching Secondary School Math	4
		TOTAL	45

Other Requirements

Courses		Titles	Credits
ED	202	Foundations of Education	3
ED	280	Educational Media and Technology	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learners	3
ED	485	Capstone Seminar	2
ED	488	Secondary Student Teaching	12
PSYCH	151	Human Development	3
PSYCH	342	Educational Psychology	3
RDG	435	Content Area Literacy	4
		TOTAL	36

Laboratory Science Sequence	8
Computer Programming	3
TOTAL	11

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Minor in Mathematics

MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
An approved elective plus three upper-division electives*(Excluding MATH 360, 361 & 477)			10
		TOTAL	20

* Two of these must be taken at USC.

Specific Requirements for the Math/Physics Double Major

MATH Courses		Titles	Credits
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	307	Intro to Linear Algebra	4
MATH	325	Intermediate Calculus	3
MATH	327	Intro to Algebraic Systems	3
MATH	337	Differential Equations I	3
MATH	338	Differential Equations II	3

EITHER			
MATH	350	Probability	3
	OR		
MATH	256	Probability for Engineers and Scientists	
		AND	
MATH	356	Stats for Engineers and Scientists	6
MATH	421	Advanced Calculus	4
		TOTAL	35-38

PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General PhysicsII/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	323/L	General Physics III/Lab III	5
PHYS	331/L	Thermodynamics	4
PHYS	431/L	Electricity and Magnetism	5
PHYS	441	Quantum Mechanics	4
PHYS	480	Practicum in Lab Instruction	5
PHYS	493	Seminar	1
		TOTAL	38

Other Requirements

Courses		Titles	Credits
MATH	425	Complex Variables	3
		OR	
PHYS	341/342L	Optics	4
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
Computer Programming			3
		TOTAL	16/17

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to the individual department's curriculum sheet.

Co-curricular Requirements

Students have the opportunity to broaden and reinforce the academic experience through participation in a variety of co-curricular activities. All students are encouraged to join the USC Math Club. Many students serve as tutors in the Math Learning Center.

Outcomes Assessment Activities

- Faculty advisors meet individually with students on a regular basis to help with schedule planning and to discuss the student's progress toward educational and career goals. Advisors maintain a record of each student's performance in his/her program of study.

- During the senior year, each major takes the Mathematics Field Achievement Test. This test measures a student's achievement level in comparison with students throughout the country.

PHYSICS/PHYSICAL SCIENCE PROGRAM

Faculty: Spenny, Wallin

The major in physics leads to a bachelor of science (BS) degree. In addition, supporting courses and general education courses in physics and astronomy are available for students with a wide spectrum of interests, backgrounds and needs. Physics majors must consult with a program adviser as early as possible and must file a departmentally approved plan of study by the beginning of the junior year.

The bachelor of science degree in physics is offered with several options:

For the first three (non-teacher) options, the recommended sequences of courses presume that the student is ready to begin MATH 126 in the first semester of the freshman year. If not, MATH 124 should be taken in the fall and MATH 126 in the spring of the freshman year concurrently with PHYS 221. Otherwise it may not be possible to complete the requirements for a physics degree within four years. Students, especially transfers, who do not strictly adhere to the plan of study may find that the term of attendance at USC will be extended beyond four years.

Physics Option:

Primarily for students planning graduate study toward a professional career in physics, astronomy or other related fields.

Physics/Engineering Option or Electronics Engineering Technology Option:

For students planning to enter positions in industry upon graduation. Courses in engineering and technology enhance the utility of the graduate to potential employers.

Physics Options in Chemical Physics, Biophysics, or Mathematical Physics:

These options are designed to meet specific career objectives for an individual.

Physics/Teaching Option:

Provides students with the knowledge and skills necessary to obtain Colorado Department of Education certification as science teachers with an emphasis in physics.

Physics/Physical Science Teaching Option:

Provides students with the knowledge and skills necessary to obtain Colorado Department of Education Certification as science teachers with emphases in physics and chemistry.

Minors

Minors also are available in physics and physical science for students who need a specialized science minor in these fields.

Program Goals

- To supply students with the necessary background to successfully pursue graduate study towards a professional career in physics, astronomy or a related field.
- To prepare students upon graduation to enter technical positions in government or industry.
- To provide students with the knowledge and skills necessary to obtain Colorado Department of Education Certification as science teachers of physics or physical science.

Expected Student Outcomes

General Requirements

- Students graduating with a BS in physics must have at least a 2.000 grade-point average in physics courses and no more than four credits in physics with grades of D.
- Students graduating with a minor in physics must have at least a 2.000 grade-point average in physics.
- A 2.500 grade-point average in the major area is required for admission to the teacher education program.
- At least 12 physics credits applied to the major (seven for minor) must be earned at USC with a C or better average.
- Students must have earned a C or better grade in lower-division prerequisite courses before being admitted to upper-division courses in physics.
- In all but the teaching options, students must demonstrate a knowledge of computer programming.
- In all but the teaching options, majors are required to take the senior research course, in which students become involved in a theoretical or experimental research problem relating to physics under the supervision of a department faculty member; and
- A fundamental understanding of chemistry and its lab techniques also is required of all majors in all options.

Specific Requirements for the Physics Option

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3
PHYS	322	Advanced Laboratory - Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341	Optics	3
PHYS	342	Advanced Laboratory - Optics	1
PHYS	431	Electricity and Magnetism	4
PHYS	432	Adv Lab Electricity & Magnetism	1
PHYS	441	Quantum Mechanics	4
PHYS	480	Practicum in Lab Instruction	1
PHYS	492	Research	1
PHYS	493	Seminar	1
PHYS	499	Thesis Research	1
		TOTAL	40

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
EN	105	Fortran	3
MATH	126	Calculus and Analytic Geometry I	5
MATH	207	Matrix & Vector Algebra w/Appl	2
MATH	224	Calculus and Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
MATH	338	Differential Equations II	3
Approved Math Elective			3-4
		TOTAL	37-38

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Physics/ Electronics Engineering Technology Option

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3
PHYS	322	Advanced Laboratory – Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341	Optics	3
PHYS	342	Advanced Laboratory – Optics	1
PHYS	431	Electricity and Magnetism	4
PHYS	492	Research	1
		TOTAL	32

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geom I	5
MATH	207	Matrix & Vector Algebra w/Appl	2
MATH	224	Calculus and Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
CIS	111	Intro to Programming and Design	4
CIS	121	Intro to C++ Programming	4
EET	121	DC Circuits	4
EET	122	AC Circuits	4
EET	211	Electronics I	4
EET	212	Electronics II	4
EET	254	Introduction to Digital Systems	4
EET	351	Electronics III	4
CENT	255	Introduction to Microprocessors	4
		TOTAL	64

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Physics/ Engineering Option

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3
PHYS	322	Advanced Laboratory- Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341	Optics	3
PHYS	342	Advanced Laboratory - Optics	1
PHYS	431	Electricity and Magnetism	4
PHYS	492	Research	1
		TOTAL	32

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
EN	103	Introduction to Engineering	2
EN	105	FORTRAN	3
EN	107	Engineering Graphics	2
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	231	Circuit Analysis I	4
EN	321	Thermodynamics I	3
EN	324/L	Mechanics of Materials/Lab	4
EN	342	Manufacturing Processes	4
EN	443	Quality Control and Reliability	3
EN	471	Operations Research	3
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Algebra w/Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
		TOTAL	62

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Biophysics, Chemical Physics, or Mathematical Physics Options*

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3
PHYS	322	Advanced Laboratory- Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341/342	Optics/Adv. Laboratory Optics	4
		OR	
PHYS	431	Electricity and Magnetism	4
PHYS	441	Quantum Mechanics	4
PHYS	492	Research	1
		TOTAL	32

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
CIS	111	Intro to Programming and Design.	4
		OR	
EN	105	FORTRAN	3
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Algebra w/Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
Approved electives in biology			32
		OR	
Approved electives in chemistry			22
		OR	
Approved electives in mathematics			14
		TOTAL	45-64

*A MATH/PHYSICS double major is also available in the department. (See MATH department requirements.)

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Physics Teacher Certification Option

PHYS Courses		Titles	Credits
PHYS	110	Astronomy	3
PHYS	140/L	Light, Energy and the Atom/Lab	4
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
PHYS	321/322	Thermodynamics/Lab	4
PHYS	323/L	General Physics III/Lab III	5
PHYS	341/342	Optics/Lab	4
		OR	
PHYS	361	Physics of Sound	3
PHYS	480	Practicum in Lab Instruction	1
		TOTAL	30 - 31

Other Required Courses

Courses		Titles	Credits
ANS	420	Lab Safety	1
BIOL	100/L	Principles of Biology/Lab	4
BIO	121/L	Environmental Conservation/Lab	4
CHEM	121/L	General Chemistry /Lab I	5
CHEM	122/L	General Chemistry II/Lab	5
ED	202	Foundation of Education	3
ED	280	Educational Media & Tech	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learners	3
ED	444	Teaching Secondary Science	4
ED	485	Capstone Seminar	2
ED	488	Student Teaching -Secondary	12
GEOL	101/L	Earth Science/Lab	4
MATH	126	Calculus & Analytic Geom I	5
MATH	224	Calculus & Analytic Geom II	5
PSYCH	151	Intro to Human Development	3
PSYCH	342	Educational Psychology	3
RDG	435	Content Area Literacy	4
		TOTAL	73

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Physics/ Physical Science Teacher Certification Option

PHYS Courses		Titles	Credits
PHYS	110	Astronomy	3
PHYS	140/L	Light, Energy and the Atom/Lab	4
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	323/L	General Physics III/Lab III	5
		TOTAL	22

Chemistry Option

CHEM Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
CHEM	211/L	Intro to Organic Chemistry/Lab	4
		OR	
CHEM	301/L	Organic Chemistry I/Lab I	4
CHEM	317/L	Quantitative Analysis/Lab	5
CHEM	321	Physical Chemistry I	3
CHEM	378	Practicum in Lab Instruction	1
		TOTAL	23

Other Required Courses

Courses		Titles	Credits
ANS	420	Lab Safety	1
BIOL	100/L	Principles of Biology/Lab	4
BIOL	121/L	Environmental Conservation/Lab	4
ED	202	Foundations of Education	3
ED	280	Educational Media and Tech	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learners	3
ED	444	Teaching Secondary Science	4
ED	485	Capstone Seminar	2
ED	488	Student Teaching- Secondary	12
GEOL	101/L	Earth Science/Lab	4
MATH	224	Calculus & Analytical Geom I	5
MATH	224	Calculus & Analytic Geom II	5
PSYCH	151	Intro to Human Development	3
PSYCH	342	Educational Psychology	3
RDG	435	Content Area Literacy	4
		TOTAL	63

Institutional and General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Minor in Physics

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	323/L	General Physics III/Lab III	5
Approved Upper-division Electives in Physics			5
		TOTAL	20

Specific Requirements for the Minor in Physical Science

A minimum of 24 credits must be selected from the courses listed below:

Course		Titles	Credits
PHYS	161	Elementary Concepts in Science II	3
PHYS	110	Astronomy	3
PHYS	201/L	Principles of Physics I/Lab I	4
PHYS	202/L	Principles of Physics II/Lab II	4
PHYS	361	Physics of Sound	3
CHEM	111/L	Principles of Chemistry/Lab	4
GEOL	101/L	Earth Science/Lab	4
CIS	102	Intro to Basic Programming	4
		OR	
EN	105	FORTRAN	3

Co-curricular Requirements

The program faculty believes that students should have co-curricular experiences that complement and reinforce their academic experiences. Therefore, the faculty encourages students to join and participate in events sponsored by the department and the Society of Physics Students (SPS), Sigma Pi Sigma initiations, physics expositions, picnics, graduation breakfast, potluck dinners, etc. to foster a spirit of camaraderie.

Outcomes Assessment Activities

The Physics Program faculty will assess the skills, capacities, and knowledge of its majors as follows:

- The student must complete a senior research project including a formal presentation of results both in writing and orally to at least two members of the physics faculty (except for those in the teaching options).

- The student must take the Physics Major Field Achievement Test offered by The Educational Testing Services (ETS) or another departmentally approved exam covering the sub-fields in physics at some point during his/her senior year (except for those in the teaching options).

- By maintaining a portfolio for each student which contains college grades, records of special skills acquired, senior research project results, Field Achievement Test results and a record of co-curricular activities. The portfolio will remain on file in the department and will be added to as additional information is obtained from student or employer.

The program faculty believes that improvement in the skills, capacities, and knowledge of its minors can be assessed through required course work. The course grade will be a measure of the student's grasp of the basics in each discipline.

THE HASAN SCHOOL OF BUSINESS

Dr. Rex D. Fuller, Dean

Majors: Accounting (BSBA), Business Management (BSBA), and Economics (BSBA)

Minors: Accounting, Business Administration, Economics, Entrepreneurship, Marketing, Supervisory Management

MBA: Joint BSBA/MBA and MBA

Mission

The mission of the Hasan School of Business is to provide quality undergraduate and graduate business education for a diverse student population. Our educational programs prepare our students to become business leaders by developing an understanding of contemporary business practices, managerial and entrepreneurial skills, and the global economy. Our outreach activities, developed in partnership with the community, serve to enhance the quality of life and economic well-being in southeastern Colorado.

Program Goals

Undergraduate Majors

The Hasan School of Business offers undergraduate degrees in accounting, business management (with emphases in entrepreneurship/small business and marketing), and economics (with an emphasis in finance). Graduates will be able to successfully compete for appropriate entry–level positions in private firms, non-profit organizations or government. The accounting major will prepare majors for professional careers in accounting. The knowledge and skills acquired with the major in business management can be used in a number of areas including human resource and operations management. The business management major with a specialization in marketing prepares the graduate to successfully promote and sell goods and services. Economics majors are particularly well prepared to enter graduate programs in business in addition to assuming entry–level positions in business firms, non-profit organizations or government. The economics major with a specialization in finance prepares the graduate for positions in banking, financial analysis, and related financial services industries.

Note: Students planning to take professional certification exams in any field are encouraged to consult with their faculty advisors to understand any additional requirements.

The Hasan School of Business has identified eleven core competency areas that should be developed in all students:

- **Creative Problem Solving and Innovation:** Accurately use theoretical frameworks of problem solving, critical thinking, brainstorming, and other methods to analyze business situations, identify problems and find creative and innovative solutions. Deal effectively with ambiguity and risk.
- **Team Member:** Demonstrate the ability to interact effectively with others in group situations involving teamwork, demographic diversity, and other interpersonal skills.
- **Communications Skills:** Effectively communicate ideas, observations, conclusions and recommendations to others in a variety of professional settings using appropriate written and oral communication skills.
- **Leadership Skills:** Demonstrate the ability to influence others in a variety of organizational settings using behaviors and practices which have been identified as effective.
- **Entrepreneurial Skills:** Demonstrate the innovation and entrepreneurial spirit including innovation, growth, and customer value perspectives.
- **Action and Change Orientation:** Take the initiative in introducing new practices and procedures which help to improve organizational performance and provide opportunities for growth.
- **Knowledge of Business Disciplines:** Demonstrate theoretical and practical understanding of concepts, models and techniques associated with each business discipline.
- **Values, Ethics, and Professionalism:** Effectively identify goals and principles of ethical practice; adhere to principles of professional conduct and high standards of quality in all undertakings.
- **Global Awareness:** Demonstrate awareness of different beliefs, values and perspectives held in other cultures; make informed judgments and take actions based on this awareness and information.

- **Use of Information Technology:** Demonstrate the ability to use technology to access information and to interpret, summarize, and convey this information to others using software and equipment.

- **Quantitative Skills:** Demonstrate the ability to use mathematical concepts to collect, summarize and convey data, and to research, analyze, draw conclusions and communicate ideas using quantitative methods.

Undergraduate Minors

The goal of the minor in accounting is to provide a solid foundation in financial and managerial accounting systems.

The purpose of the business administration minor is to provide students with an understanding of the fundamentals of accounting, economics, finance, and the basics of managing a business and marketing a product or service.

The economics minor is designed to provide students with an understanding of micro and macro economic principles, income distribution, and to apply such principles to current economic problems

The goal of the entrepreneurship minor is to provide an overview of issues facing small business and to help students understand the entrepreneurial process

The goal of the marketing minor is to provide students with an understanding of how marketing activities, using a customer focus, can be used to sell products, services and ideas successfully

The goal of the minor in supervisory management is to provide a basic understanding of the complexity of managing people in organizations.

A cumulative GPA of 2.000 is required in the minor courses.

MBA

The Hasan School of Business also offers a graduate program leading to a master's degree in business administration. The degree of master of business administration is granted for the completion of a graduate program which 1) includes knowledge of the various functions of the business organization, and 2) synthesizes that knowledge into the practice of management.

Students are expected to achieve an advanced understanding of the function of the executive and to develop a high degree of competence in transferring that knowledge to the actual work situation.

See the Graduate Studies section of this catalog for more information.

General Requirements

All business students take the business foundation. This prepares students who are declaring a business major for general business knowledge and skills. The foundation also provides students with an understanding and appreciation for the intellectual discipline needed for the business program.

Business Foundation

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
BUSAD	101	The Business Enterprise in a Global Economy	2
BUSAD	160	Introduction to Computers	2
BUSAD	255	Data Management for Decision Making	3
BUSAD	265	Inferential Statistics and Problem Solving	3
BUSAD	270	Business Communications	3
BUSAD	280	Business Software & e-commerce	2
ECON	201	Macroeconomics	3
ECON	202	Microeconomics	3
MATH	220	Quantitative Analysis for Business (MATH 220 requires MATH 121)	4
MGMT	201	Principles of Management	3
		TOTAL	25*

* Total is 25 credits since BUSAD 160, ECON 201, and Math 220 are included in General Education.

An overall GPA of 2.000 and a cumulative GPA of 2.000 in the business foundation courses is **required to continue** to the business fundamentals. In addition, students must have completed eight of the twelve Business Foundation courses prior to enrolling in Business Fundamentals or business major courses. Students must also complete MATH 220 with a grade of C or better prior to enrolling in Business Fundamentals or business major courses.

All business students take business fundamentals. These courses provide students with the common body of knowledge needed for imaginative and responsible citizenship and leadership roles in business and society domestic and worldwide. The business fundamentals are designed to provide students with the opportunity to integrate their educational experience in business within a specific discipline and across disciplines.

Business Fundamentals

Courses		Titles	Credits
BUSAD	302	Ethical Issues & Legal Env of Bus	3
FIN	330	Principles of Finance	3
MGMT	311	Operations & Quality Mgmt.	3
MKTG	340	Principles of Marketing	3
MGMT	301	Organizational Behavior	3
MGMT	485	Management Policy & Strategy	3
		TOTAL	18

Majors and Emphasis Areas (specific course requirements are detailed later)

Select one:

Accounting	24
Business Management	24
Business Management/Entrepreneurship	24
Business Management/Marketing	24
Economics	24
Economics/Finance	24

Graduation Requirements

Students must satisfy the university general education requirements, general institutional requirements, and have at least 120 total credit hours with a cumulative GPA of 2.000 to graduate. Non-business courses plus six hours of business statistics plus six hours of economics and two hours of computing courses must total at least 50 percent of the total hours required for the BSBA degree. In addition, at least 50 percent of the total business credit hours must be taken in the Hasan School of Business.

All business students are required to take MATH 121 and MATH 220 and receive grades of C of better in each. At least eighteen hours of a major or emphasis must be taken at USC, but this may be waived at the discretion of the department chair or dean.

A cumulative GPA of 2.000 in the major, Business Fundamentals and Business Foundations is required. Accounting majors are required to earn a minimum grade of C in each accounting course.

Summary of Graduation Requirements:

General Education	34
Other Non-Business	19
Business Foundation	25
Business Fundamentals	18
Major	24
TOTAL (minimum credits)	120

Minor Requirements

Business students who have chosen majors in accounting, business management or economics automatically satisfy the business administration minor. However, students may pursue a second minor outside the Hasan School of Business.

Course Waiver

The Hasan School of Business offers a "test out" course waiver for some business core courses, but does not offer credit for life experience.

Co-curricular Opportunities

Co-curricular activities are encouraged for all business students. Included are internships, student clubs, and seminar programs. A current list of clubs is available in the Hasan School of Business or on the USC web site.

Outcomes Assessment Activities

Student Portfolio

The Hasan School of Business curriculum offerings are designed to help track each student's progress at various checkpoints through the establishment of a portfolio. The portfolios are kept in a central file in the Hasan School of Business, accessible to the administration, the student, the student's adviser, and the faculty of the school.

Each portfolio contains items such as:

- the Hasan School of Business advising form;
- ACT or SAT test scores, with date;
- high school GPA and class standing, date of graduation, school, and location;
- national standardized test results, if applicable.

In addition, the Hasan School of Business faculty measure achievement annually in each major and area of emphasis by administering (whenever one is available) a nationally standardized test. Results of such measurements are used for program assessment. The Hasan School of Business compiles information to assess the success of graduates. Information is obtained from the USC Alumni Office, the Career Information Center, and other sources.

Advising

Students enter the university as pre-business majors. Upon declaration of a major, students are assigned to a faculty advisor in their major and are encouraged to meet regularly with their advisor to plan their schedule. Generally, students complete General Education and Business Foundation before their junior year. Students may apply for admission to their major once they have earned 45 credits and completed at least eight of the twelve courses in the Business Foundations. After completing 105 credits, students must file a graduation plan with the Student Success Coordinator to ensure that all graduation requirements will be met.

ACCOUNTING AREA

Department Chair: Hanks

Faculty: Regassa, Sage, Wheeling

The major in accounting leads to the bachelor of science in business administration (BSBA) degree. The primary objective is to provide an academic program that covers the conceptual basis of accounting as well as the application of accounting doctrine in current accounting practice. The programs of study are functional in that they provide the broad base of knowledge required by the accounting profession.

Goals for Accounting Major

Students must demonstrate the knowledge or skills of:

- financial accounting and theory and practice, including revenue and expense recognition, valuation approaches, preparation and analysis of financial statements;
- cost and managerial accounting, including cost accounting, planning, evaluation, allocation, and budgeting processes;

Requirements for the Accounting Major:

Courses		Titles	Credits
ACCTG	301	Intermediate Accounting I	3
ACCTG	302	Intermediate Accounting II	3
ACCTG	311	Federal Income Tax	3
ACCTG	320	Cost Accounting	3
*Electives			12
		TOTAL	24

* Electives may be selected from the 400-level accounting courses and BUSAD 480. MGMT 368 may also be used as an elective; however, **students taking MGMT 368 must also take ACCTG 430**. Students may take **either** ACCTG 490 or 498.

Requirements for the Minor in Accounting (non-business students)

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
ACCTG	301	Intermediate Accounting I	3
ACCTG	320	Cost Accounting	3
ACCTG		Elective	3
ECON	202	Microeconomics	3
MGMT	201	Principles of Management	3
		TOTAL	21

A GPA of 2.000 or higher is required for the minor courses.

BUSINESS ADMINISTRATION/ ECONOMICS AREA

Department Chair: Hanks

Faculty: Ahmadian, Billington, Browne, Castillo, Damron-Martinez, Dhatt, Duncan, Eisenbeis, Fuller, Goodman, Hanks, Noreiko, Shah, Wakefield, Watkins, Whited, Zeis

The major in business management leads to the bachelor of science in business administration (BSBA) degree, and provides students with the theoretical and conceptual basis of business as well as application skills to assume leadership roles in industry, government and education.

The undergraduate business management major permits students to select one emphasis as a specialty area. Emphasis areas within the major are available in management, and marketing. The knowledge and skills acquired with the major in business management can be used in a number of areas including human resource and operations management.

The business management major with a specialization in marketing prepares the graduate to successfully promote and sell goods and services.

The major in economics leads to the bachelor of science in business administration (BSBA) degree and provides students with the theoretical and conceptual basis of economics. Economics majors are particularly well prepared to enter graduate programs in business in addition to assuming entry–level positions in business firms, non-profit organizations or government. The economics major with a specialization in finance prepares the graduate for positions in banking, financial analysis, and related financial services industries.

Goals for Business Management and Economics Majors

Students must demonstrate core business knowledge or skills in:

- economics, quantitative decision making, marketing, financial control and analysis and accounting;
- management principles used in strategic and tactical planning, setting and integrating goals and objectives, managing change, and effective operations;
- organization concepts including various design arrangements;
- the legal environment of business especially in the areas of Equal Employment Opportunity (EEO)/Affirmative Action, and the Occupational Safety and Health Administration (OSHA);
- using computers, including spreadsheets, word processors, and data management programs;
- written and oral communication, analyses and reports in appropriate business format with high quality;
- the financing, marketing, cultural and operational aspects of international business relations;
- identifying management problems and applying appropriate problem solving and decision-making techniques that include appropriate ethical considerations;
- human resource management to include effective practices of recruitment, training and development, appraisal, compensation, and motivation;
- interpersonal relationships and effective small group project management;
- the ability to conduct an independent research paper where the project requires the use of the knowledge and skills developed in the required courses of the emphasis area. The paper should demonstrate the student's ability to: (a) think independently, (b) synthesize ideas, and (c) think and analyze critically; and
- the ability to develop a career plan including short- and long-term career goals, a resume and letter of application suitable for sending to prospective employers.
- Students must also demonstrate knowledge or skills that are specific to their selected emphasis area (finance, marketing, management, or operations and materials management) and:
- understand and use appropriate emphasis area terminology, principles, and concepts;
- use the scientific problem-solving method, analyze critical case situations specific to the emphasis area; provide reasonable recommendations and support recommendations adequately; apply relevant emphasis area theories, concepts, and techniques; and integrate the primary functional disciplines of business; and
- understand the role or the appropriate emphasis area in corporate policy and strategy development.
- Students majoring in economics also must demonstrate knowledge or skills that are specific to the economics area and:
- understand the central economic theories, both macro and micro, and the policy implications of the theories;
- understand the macroeconomic role of fiscal and monetary policy; and
- understand market structure and the pricing and output behavior of the firm.

Business Administration/Economics Area Majors

Requirements for Business Management Major

Courses	Titles	Credits
MGMT 318	Human Resource Management	3
MGMT 349	Management of Service Businesses	3
MGMT 365	Management Information Sys	3
MGMT 368	Project Management	3
Choose one from:	ECON 420, MGMT 414 OR BUSAD 480	3
Choose one from:	ECON 302, FIN 331, MGMT410, 490, OR MKTG 345	3
Choose one from:	ECON 320, FIN 332, MGMT 475, OR MKTG 350	3
Open elective (upper division business)		3
	TOTAL	24

Requirements for Business Management Major with Entrepreneurship/Small Business Emphasis

Courses		Titles	Credits
BUSAD	480	Small Business Studies	3
MGMT	349	Mgmt of Service Businesses	3
MGMT	365	Management Information Sys	3
MGMT	368	Project Management	3
MGMT	414	Entrepreneurship	3
Choose two from:		ECON 320, 410, 420; FIN 331, 332, MGMT 318, 410, 475, 490; OR MKTG 341, 342, 345 OR 350	6
Open Elective			3
		TOTAL	24

Requirements for Business Management Major with Marketing Emphasis

Courses		Titles	Credits
MGMT	349	Mgmt of Service Businesses	3
MGMT	365	Management Information Sys	3
MGMT	368	Project Management	3
MKTG	348	Consumer Behavior	3
MKTG	350	International Marketing	3
MKTG	440	Marketing Research	3
MKTG	441	Marketing Strategies	3
MKTG		Elective	3
		TOTAL	24

Requirements for Economics Major

Courses		Titles	Credits
ECON	301	Intermediate Macroeconomics	3
ECON	302	Intermediate Microeconomics	3
ECON	310	Money and Banking	3
ECON	420	Regional Economic Analysis	3
ECON		Electives	6
MGMT	368	Project Management	3
Open elective (upper division business)			3
		TOTAL	24

Requirements for Economics Major with Finance Emphasis

Courses		Titles	Credits
ECON	301	Intermediate Macroeconomics	3
ECON	302	Intermediate Microeconomics	3
ECON	310	Money and Banking	3
FIN	331	Managerial Finance	3
FIN	333	Investment Analysis	3
FIN	430	Financial Institutions & Markets	3
FIN	431	Financial Policy Analysis	3
FIN		Elective	3
		TOTAL	24

Business Administration/Economics Area Minors

Note: Business minors are open to **non-business** majors only.

Requirements for Business Administration Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
FIN	330	Corporate Financial Management	3
MGMT	201	Principles of Management	3
MKTG	340	Principles of Marketing	3
		TOTAL	21

Requirements for Marketing Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
MKTG	340	Principles of Marketing	3
Select three of the following:			
BUSAD	280	Business Software and e-commerce	2
MKTG	341	Sales Force Management	3
MKTG	342	Promotional Strategy	3
MKTG	348	Consumer Behavior	3
MKTG	350	International Marketing	3
		TOTAL	20-21

All 300- and 400- level courses require junior and senior standing or permission of instructor.

Requirements for Supervisory Management Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
MGMT	301	Organizational Behavior	3
MGMT	318	Personnel Management	3
MGMT	410	Labor Management	3
		TOTAL	21

All 300- and 400- level courses require junior or senior standing or permission of instructor.

Requirements for Entrepreneurship Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
BUSAD	280	Business Software & e-commerce	2
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
MGMT	349	Mgmt of Service Businesses	3
MGMT	414	Entrepreneurship	3
MKTG	340	Principles of Marketing	3
		TOTAL	20

All 300- and 400- level business courses require junior or senior standing or permission of instructor.

Requirements for Economics Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
ECON	301	Intermediate Macroeconomics	3
ECON	302	Intermediate Microeconomics	3
ECON		Elective	3
MGMT	201	Principles of Management	3
		TOTAL	21

JOINT BSBA/MBA

Admission Requirements

Students are required to take the Graduate Management Admissions Test (GMAT). An admission formula of 200 times the undergraduate GPA (4.000 system) plus the GMAT score is used as an admission score. The undergraduate GPA must be based on a minimum of 75 semester hours of course work including MGMT 201, FIN 330, and MKTG 340. Students must have a minimum GPA of 3.25 and a GMAT of at least 450 to be admitted to the program. Students who fail to meet these requirements may provide additional evidence of their ability to complete the program. Such evidence may include: performance in outside activities, evidence of creativity or leadership, and a record of accomplishment.

General Requirements

Students in the joint BSBA/MBA program must complete:

- the Business Foundation
- a major within the Hasan School of Business
- the joint degree core (see below)
- all remaining MBA courses specified below

In addition, students must satisfy all GPA requirements for the BSBA and the MBA (see the MBA listing under the *Graduate Programs* section of the catalog)

Joint Degree Core

Courses		Titles	Credits
BUSAD	502	Business Ethics and Env	3
FIN	330	Corporate Financial Management	3
MGMT	511	Production and Operations Management	3
MGMT	520	Management of Organizational Behavior	3
MGMT	585	Management Policy & Strategy	3
MKTG	340	Principles of Marketing	3
		TOTAL	18

In addition, the following MBA courses must be completed:

Courses		Titles	Credits
ACCTG	510	Managerial Accounting	3
ECON	510	Economics for Managers	3
FIN	530	Financial Management	3
MGMT	565	Management Info Sys	3
MKTG	540	Marketing Mgt. Strat	3
Select one:		BUSAD 575, FIN 575, MGMT 575 OR MKTG 575	3
Approved Graduate Electives			6
		TOTAL GRADUATE	36

In summary, the joint degree plan has the following requirements:

General Education	33
Other Non-business	14
Business Foundation	31
Joint Core	18
Additional MBA requirements	24
Business Major	24
TOTAL	144

Students who complete part of the joint degree plan but decide to opt out of the MBA program and continue towards earning **only** the BSBA are granted credit towards the BSBA for 500-level courses taken as follows:

500-Level Course Taken	**300-and 400-Level** Course Credit
BUSAD 502	BUSAD 302
BUSAD 575	BUSAD 375
MGMT 511	MGMT 311
MGMT 520	MGMT 301
MKTG 540	MKTG 441

Course Description Information

The University of Southern Colorado does not offer all the courses listed in this catalog every semester or every year.

Each semester the university publishes a bulletin listing a detailed schedule of courses offered and the times and places of instruction. Courses listed in the bulletin are subject to change.

EXPLANATORY NOTES

Numbering of Courses

Course numbering is based on the content level of material presented in courses.

Courses numbered:

000-099 remedial; do not count toward graduation

100-299 primarily for freshmen and sophomores (lower division)

300-499 primarily for juniors and seniors (upper division)

500-599 primarily for students enrolled in master's degree programs or the equivalent.

600-620 Colorado State University courses offered at the University of Southern Colorado toward a master's degree in social work.

Variable credit courses
(1-3 VAR) indicates variable credit; the minimum and maximum credit limitations. An example:

> ***494 Field Experience (1-5 VAR)***
> Off-campus individual experience providing transition from classroom instruction to on-the-job experience. Supervised by instructor and job supervisor. Prerequisite: senior standing and permission of instructor.

Cross-listed courses
Courses in which students may earn credit under either (but not both) of two prefixes (e.g., SOC or HIST) for the same offering.

Corequisite
A requirement which must be taken concurrently with another course of instruction.

Prerequisite
A requirement which must be fulfilled before a student can enroll in a particular course. Permission of the instructor for a student to attend a class is implied when the student has met the prerequisites specified by the department.

Cancellation of courses
The university reserves the right to cancel courses not selected by an adequate number of students or not suitably staffed by qualified faculty.

KEYS TO SYMBOLS

Course descriptions include a variety of symbols conveying essential information. The following standard course description with explanation of symbols serves as a model:

102 Composition II 3(3-0)
Sequentional course to provide intensive consideration of essay development and to introduce procedures and techniques in preparing the referenced paper. Prerequisite: ENG 101. (F,S,SS)

102	course number
Composition II	course title
3(3-0)	number of credits (clock hours in lecture per week – clock hours in laboratory demonstration or studio experiences per week)
"Sequential course..."	explanation of course content
Prerequisite ENG 101	required to be taken before
(F,S,SS)	taught fall, spring and summer semesters

Note: Not all of the above information may be noted in each course. Additional symbols include:

F	Taught fall semester
S	Taught spring semester
SS	Taught summer session
*	Offered upon demand
O	Taught odd numbered years
E	Taught even numbered years
VAR	Variable credit course
L	Suffix indicating lab course
CE	Credit by exam allowed
IP	Grade of IP (In Progress) available

UNIVERSITY-WIDE "HOUSE-NUMBERED" COURSES

200, 300, 400, 500	–	Workshop
290, 390, 490, 590	–	Special Project
291, 391, 491, 591	–	Special Topics
292, 392, 492, 592	–	Research
293, 393, 493, 593	–	Seminar
294, 394, 494, 594	–	Field Experience
295, 395, 495, 595	–	Independent Study
296, 396, 496, 596	–	Cooperative Education
297, 397, 497, 597	–	Studio Series
298, 398, 498, 598	–	Internship
599	–	Thesis Research
600	–	Master's Degree in Social Work

COURSE PREFIXES

Courses of instruction are identified by the following approved prefixes:

ACCTG	–	Accounting
ANS	–	Applied Natural Science
ANTHR	–	Anthropology
APSM	–	Auto Parts and Service Management
ART	–	Art
BBE	–	Bilingual Bicultural Education
BIOL	–	Biology
BUSAD	–	Business Administration
CENT	–	Computer Engineering Technology
CET	–	Civil Engineering Technology
CHEM	–	Chemistry
CIS	–	Computer Information Systems
CS	–	Chicano Studies
ECON	–	Economics
ED	–	Education
EE	–	Electrical Engineering
EET	–	Electronic Engineering Technology
EN	–	Engineering
ENG	–	English
ET	–	Engineering Technology
EXHP	–	Exercise Science and Health Promotion
FIN	–	Finance
FL	–	Foreign Language
FMTS	–	Facilities Management & Technology Studies
FRN	–	French
GEOG	–	Geography
GEOL	–	Geology
GER	–	German
HIST	–	History
HONOR	–	Honors
IS	–	Interdisciplinary Studies
INTL	–	International Studies
ITL	–	Italian
MATH	–	Mathematics
MCCNM	–	Mass Communications/Center New Media
ME	–	Mechanical Engineering
MET	–	Mechanical Engineering Technology
MGMT	–	Management
MKTG	–	Marketing
MS	–	Military Science
MUS	–	Music
NSE	–	National Student Exchange
NSG	–	Nursing
PHIL	–	Philosophy
PHYS	–	Physics
POLSC	–	Political Science
PSYCH	–	Psychology
RDG	–	Reading
REC	–	Recreation
RUS	–	Russian
SCI	–	Science
SOC	–	Sociology
SOCSC	–	Social Science
SPCOM	–	Speech Communication
SPN	–	Spanish
SW	–	Social Work
TH	–	Theatre
WS	–	Women's Studies

ACCOUNTING (ACCTG)

UNDERGRADUATE COURSES

ACCTG 201 Principles of Financial Accounting 3(3-0)
Introduction to accounting as the language of business. Emphasis on reasoning and logic of external reporting model. May include computer-based applications. Prerequisite: MATH 121. (*)

ACCTG 202 Principles of Managerial Accounting 3(3-0)
Managerial uses of accounting information, including cost-based, decision making, differential accounting, and responsibility accounting. May include computer-based applications. Prerequisite: ACCTG 201, (*)

ACCTG 301 Intermediate Accounting I 3(3-0)
Financial accounting functions, conceptual framework, accounting process and financial statements-income statement, balance sheet, cash flow; revenue recognition. Prerequisites: ACCTG 200 or 202. Corequisite: ACCTG 301L or permission of instructor. (*)

ACCTG 301L Financial Accounting Lab 1(0-2)
Applications of financial accounting theory covered in ACCTG 301, computer-based problems, cases, practice sets. Prerequisite: ACCTG 200 or 202. Corequisite: ACCTG 301 or permission of instructor. (S/U grading) (*)

ACCTG 302 Intermediate Accounting II 3(3-0)
Asset accounting and reporting, receivables, monetary items, inventory, operational assets, accounting for financial instruments, equity securities, debt securities. Prerequisite: ACCTG 301. (*)

ACCTG 311 Federal Income Tax 3(3-0)
Federal income tax as applied to income recognition, exclusions from income and property transactions of individuals. Introduction to tax research resources and techniques. Prerequisite: ACCTG 301. (*)

ACCTG 320 Cost Accounting 3(3-0)
Accounting procedures applicable to industries with emphasis on job order process costs, standard cost and profit planning including differential costs, internal profit and price policies, and capital budgeting. Prerequisite: ACCTG 200 or 202. Corequisite: ACCTG 320L. (*)

ACCTG 320L Managerial Accounting Lab 1(0-2)
Applications of managerial accounting theory, computer-based problems, cases, practice sets. Prerequisites: ACCTG 200 or 202. Corequisite: ACCTG 320. (S/U grading) (*)

ACCTG 401 Advanced Financial Accounting 3(3-0)
Application of fundamental theory to partnerships, international operations, consolidated statements, and business combinations; introduction to government. Prerequisites: ACCTG 302. (*)

ACCTG 403 Intermediate Accounting III 3(3-0)
Revenue recognition, leases, pensions, income taxes, contributed capital, retained earnings, earnings per share, code of professional ethics, statement of changes in cash flow, current issues in accounting theory. Prerequisite: ACCTG 302. (*)

ACCTG 404 CPA Law 3(3-0)
Business law as found in the Business Law section of the Uniform CPA examination. Prerequisite: senior standing, accounting major. (*)

ACCTG 410 Auditing 3(3-0)
A study of the systematic process by which external financial statements and other management assertions are verified and reported upon by independent, internal, and governmental auditors. Prerequisite: ACCTG 302. (F,S)

ACCTG 411 Corporate, Estate and Gift Tax 3(3-0)
Taxation of corporations, partnerships, estates/trusts. Analysis of mergers and dissolution of corporations. Introduction to estate/gift taxes and international taxation. Prerequisite: ACCTG 311. (*)

ACCTG 430 Accounting Information Systems 3(3-0)
The study of design and implementation of accounting information systems. Attention directed to the traditional accounting model and its relationship to computerized accounting information systems. Prerequisite: ACCTG 320. (*)

ACCTG 440 Governmental/Non-Profit Accounting 3(3-0)
A study of advanced accounting topics especially as concerns not-for-profit entities with emphasis on governmental accounting. Prerequisite: ACCTG 202. (*)

ACCTG 490 Special Projects (1-6 VAR) (*)

ACCTG 491 Special Topics (1-3 VAR) (*)

ACCTG 495 Independent Study (1-3 VAR)
Prerequisites: senior standing, accounting major and adviser permission. (*)

ACCTG 498 Internship (1-6 VAR)
Supervised field work in selected business, social and governmental organizations; supplemented by written reports. (S/U grades.) Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

ACCTG 510 Managerial Accounting 3(3-0)
Accounting concepts and methods utilized in managerial planning, budgeting, controlling, and evaluating to optimize decision making. Prerequisite: graduate standing. (*)

ACCTG 511 Tax Planning and Research 3(3-0)
Advanced study of tax research methodology, IRS and professional guidelines on tax positions, appreciation of research skills, planning techniques to individual, corporate, partnership cases. Prerequisite: ACCTG 311. (*)

ACCTG 520 Advanced Cost Management Systems 3(3-0)
Cost systems supporting new management philosophies–JIT, total quality management, continuous improvement, process reengineering. Activity-based costing, target costs, cost of quality. Prerequisites: ACCTG 320 and graduate standing. (*)

ACCTG 561 Current Issues in Auditing 3(3-0)
Current issues related to evolving auditing models – internal or external. Prerequisite: graduate standing and either ACCTG 410 or permission of instructor. (*)

ACCTG 571 Current Issues in Accounting 3(3-0)
In-depth discussion of various problems in accounting. Prerequisite: graduate standing. (*)

ACCTG 591 Special Topics 3(3-0)
Critical review and discussion of relevant accounting topics. (*)

ACCTG 592 Research (1-6 VAR)
The student will work under the close supervision of a graduate faculty member in basic or applied research resulting in a thesis or report of high academic quality. (I/P and S/U grading) (*)

ACCTG 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: graduate standing. (*)

ACCTG 598 Internship 3(3-0)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: graduate standing. (S/U grading) (*)

ACCTG 599 Thesis Research (1-6 VAR) (*)

ANTHROPOLOGY (ANTHR)

UNDERGRADUATE COURSES

ANTHR 100 Cultural Anthropology 3(3-0)
Introduction to the concepts by which anthropology understands particular lifestyles, and to the constructs by which it accounts for similarities and differences among lifestyles. (*)

ANTHR 104 Physical Anthropology 3(3-0)
Biological nature of humans; emphasis on how forces of evolution have shaped human nature in the past and present. (*)

ANTHR 105 Introduction to Archaeology 3(3-0)
Evolution of culture as explained through archaeological methods and theories; emphasis on the preservation and protection of the cultural environment. (*)

ANTHR 106 (ENG 106) Language, Thought and Culture 3(3-0)
Cross-cultural introduction to language processes in human society. (*)

ANTHR 211 Laboratory and Field Techniques (1-10 VAR)
Training in field and/or laboratory techniques by participation in anthropological project. Prerequisites: permission of instructor; previous work in anthropology recommended. (*)

ANTHR 250 (SOC 250) The Sacred in Culture 3(3-0)
Concepts of the supernatural studied cross-culturally and in particular cultures. Analysis of the role of religion in helping individuals adjust to stress and aging. (*)

ANTHR 251 World Archaeology 3(3-0)
Awareness and appreciation of cultural evolution and heritage through descriptions and interpretations of archaeological remains throughout the world. (*)

ANTHR 252 (SOC 252) Culture and Personality 3(3-0)
Relationship between group processes and personality factors in a cross-cultural perspective. (*)

ANTHR 291 Special Topics (1-3 VAR) (*)

ANTHR 301 Peoples and Cultures of the Southwest 3(3-0)
Examination of the region's multiethnic and pluralistic society; emphasis on adverse adaptations to distinctive nature and cultural environments. (*)

ANTHR 310 (SOC 310) Social and Cultural Theory 3(3-0)
From classical to contemporary theory in sociology and anthropology. (*)

ANTHR 401 (SOC 401) Health, Culture and Society 3(3-0)
Analysis of cultural, social, and psychological factors influencing health and health-care. (*)

ANTHR 402 (SOC 402) Aging, Culture and Society 3(3-0)
Cultural, sociological, and psychological dimensions of aging. (*)

ANTHR 451 (SOC 451) Culture/Deviance/Psychopathology 3(3-0)
Analysis of the relationship between culture and the causes and manifestations of deviance and psychopathology. (*)

ANTHR 452 (SOC 452) Self and Society 3(3-0)
Examination of the self and society within anthropological theory. Special emphasis will be placed on symbolic interactionism and cross-cultural approaches. Prerequisite: SOC 101 and/or SOC/PSYCH 352 (*)

ANTHR 453 Southwestern Archaeology 3(3-0)
Investigations of the prehistories of diverse peoples and cultures of the Southwest. (*)

ANTHR 491 Special Topics (1-3 VAR) (*)

ANTHR 492 (SOC 492) Research 3(3-0)
Qualitative and quantitative methods and designs in sociological research. (*)

ANTHR 493 Seminar (2-4 VAR) (*)

ANTHR 494 Field Experience (3,4,5,6,12 VAR)
Practical experience in an agency setting. Prerequisite: permission of instructor. (*)

ANTHR 495 Independent Study (1-10 VAR)
Directed study for students interested in specific areas of anthropological concern. Prerequisites: previous work in anthropology and permission of instructor. (*)

APPLIED NATURAL SCIENCE (ANS)

GRADUATE COURSES

ANS 510 Scientific Information Systems 1(1-0)
Techniques of the effective and efficient use of scientific literature including the general content and organization of Chemical Abstracts, Biological Abstracts, Beilstein, Current Contents, and primary literature sources; use of computerized data bases for the location of literature and patent information. *Students in the biological and chemical sciences emphasis are strongly advised to take this course in the fall semester of their first year in the program. Prerequisite: graduate standing. (F)

ANS 520 Health and Safety in the Laboratory 1(1-0)
Review of standard potential hazards encountered in the scientific laboratory including fire, chemical, biological and radiation hazards. Applicable regulations associated with the handling and disposal of hazardous materials and wastes (OSHA, EPA, RCRA, state, "Right to Know," etc.). Sources of information regarding hazards (Material Safety Data Sheets, etc.). Control and prevention of spills and fires. Prerequisite: graduate standing. (F)

ANS 593 Seminar 1(1-0)
Two sections of the graduate seminar are required. *Section I* 1(1-0) is an interdisciplinary seminar on topics appropriate to the application of natural sciences. Prerequisite: graduate standing and ANS 510. (S only). *Section II* 1(1-0) is the oral defense of thesis research for the thesis option of comprehensive examination for the non-thesis option. Prerequisite: graduate standing, and all other program requirements must have been fulfilled. (F,S,SS).

ART (ART)

UNDERGRADUATE COURSES

ART 100 Visual Dynamics 3(3-0)
Appreciation and understanding of visual experiences and techniques reflecting the cultural dynamics of creativity. (F,S, SS)

ART 104 Computer Graphic Literacy 1(1-1)
Basic to all microcomputer software applications containing graphic components such as business presentations, medical molecular modeling, cartography or graphic design. (F,S*)

ART 105 History Through Art I 3(3-0)
A survey of history as a means of understanding people of the past and present through a perusal of major works of art. (F,S,*)

ART 106 History Through Art II 3(3-0)
A study of historical ideas and events as reflected in the major art monument of the time. (F,S,*)

ART 110 Art Career Orientation 1(1-0)
Guided development of individual job objectives. (F,S,SS)

ART 115 Two-Dimensional Design 3(1-4)
The foundation of visual form, emphasizing two-dimensional design and color theory. (F,S)

ART 116 Three-Dimensional Design 3(1-4)
The foundation of visual form, emphasizing three dimensional design. (F,S)

ART 141 Drawing I 3(1-4)
Development of perception and technical skills in rendering. (F,S,SS)

ART 233 Sculpture I 3(0-6)
Basic problems in sculpture relating specific concerns of visual form and process. (F,S,SS)

ART 234 Painting I 3(1-4)
Introduction to painting in oil and acrylic where the control of space will be approached through the use of color. Prerequisite: art core. (F,S,SS)

ART 242 Drawing II 3(1-4)
Continued development of perception and technical skills in rendering, utilizing the human figure as a means of expression. Prerequisite: ART 141. (F,S,SS)

ART 247 Ceramics I 3(0-6)
Essential skills in ceramic processes; emphasis on form and function as related to students' needs and creative intent. Prerequisite: Permission of instructor. (F,S,SS)

ART 250 Fibers and Jewelry for Educators 3(1-4)
Students will explore, understand, and be able to teach the meaning, techniques, aesthetics, visual vocabulary, and history of fibers and jewelry. Prerequisites: ART 115, 116. (F,S,SS)

ART 270 Printmaking I (1-3 VAR)
Introduction to multiple image production through traditional and non-traditional methods, including woodcut, linocut, intaglio, serigraphy and lithography. (F,S*)

ART 274 Computer Imaging (1-3 VAR)
The production of original imagery through the use of art-oriented software on microcomputers with video input. Prerequisites: art core or permission of instructor. (Repeatable once.) (F,S,SS)

ART 275 Computer Animation I (1-3 VAR)
The creative application of microcomputers and interactive software to produce 3-D animations or video tape. No programming required. Prerequisite: Art core or permission of instructor. (*)

ART 276 Photography (1-3 VAR)
Photography as an art form and as an adjunct to other art media. Prerequisite: art core or permission of instructor. (F,S,SS)

ART 281 Introduction to Graphic Design I 3(1-4)
A basic treatment of graphic processes and techniques related to advertising design and visual communication. Prerequisite: art core or permission of instructor. (F,S)

ART 284 Designing on the Macintosh I (1-3 VAR)
An introduction to the Macintosh computer for artists and designers. Prerequisite: permission of instructor. (*)

ART 291 Special Topics (1-5 VAR)
(F,S,SS)

ART 311 Ancient Art 3(3-0)
A study of the visual arts of the major civilizations of the ancient Mediterranean world, including Egypt, Greece and Rome. Prerequisite: ART 211. (*)

ART 312 Medieval Art 3(3-0)
A study of the art and architecture produced in Europe during the Middle Ages from ca. 325 to 1300 CE. Prerequisite: ART 211. (*)

ART 313 Renaissance Art 3(3-0)
A study of art and architecture in Italy and the Netherlands from ca. 1300 to 1600 CE. Prerequisite: ART 212. (*)

ART 314 Baroque and Rococo Art 3(3-0)
A study of art in Europe from ca. 1600 to 1785. Examines the diverse art forms in Italy, Spain, England, Holland and France. Prerequisite: ART 212. (*)

ART 315 Nineteenth-Century Art 3(3-0)
A study of art produced during the nineteenth-century in Europe and the Americas, with emphasis on France and the United States. Prerequisite: ART 212. (*)

ART 333 Sculpture II: Site Art 3(0-6)
Creating sculptural elements whose form and content are a response to its site and context. Prerequisite: art core or permission of instructor. (F,S,SS)

ART 334 Painting II 3(0-6)
Techniques in oil and acrylic emphasizing the application of materials to subject matter and composition. Prerequisite: ART 234 (F,S,SS)

ART 342 Drawing III 3(1-4)
Advanced course in pursuit of increased skills of perception. Prerequisite: ART 141, 242. (F,S,SS)

ART 347 Ceramics II 3(0-6)
In-depth development of specific ceramic techniques; skills and personalization of style. Students will load and fire all the kilns as well as mix glazes. Prerequisite: ART 247 or permission of instructor. (F,S,SS)

ART 370 Printmaking II (1-3 VAR)
Investigation into multiple image production through traditional and non-traditional methods. Special attention given to specialized area of student interest. (F,S,*)

ART 371 Printmaking: Photo Processes 3(0-6)
Basic processes of printing from raised and lowered surfaces. Prerequisite: ART 270. (F,S,SS)

ART 372 Printmaking: Computers and Photo Processes 3(0-6)
Investigation into pre-press software and its application to multiple color image production. Description of photo processes and platemaking/ dark-room techniques. Prerequisite: Art 370 or 371. (F,S,SS)

ART 374 Computer Imaging (1-3 VAR)
The use of microcomputers to produce original slides or prints and animation on video tape. Prerequisite: art core or permission of instructor. (Repeatable once.) (F,S,SS)

ART 376 Photography (1-3 VAR)
Photography as an art form and an adjunct to other art media. Prerequisite: ART 276 or permission of instructor. (F,S)

ART 377 Principles of Elementary Art Education 1(1-0)
Lecture course dealing with the development of visual concepts within the child. (F,S,SS)

ART 381 Introduction to Graphic Design II 3(1-4)
Intermediate graphic design techniques including layout and camera-ready art work. Prerequisite: ART 281 or permission of instructor. (F,S,SS)

ART 382 Illustration 2(0-4)
Images rendered in varying techniques to express ideas related to commercial application. Prerequisite: ART 381 or permission of instructor. (F,S,SS)

ART 383 Exhibition Design 2(0-4)
Communication and design principles applied to the display of objects. Special attention to museum and gallery installations. Prerequisite: permission of instructor. (F,S,SS)

ART 384 Designing on the Macintosh II (1-3 VAR)
Advanced instruction in technique and concept on the Macintosh Computer for artists and designers. (*)

ART 397 Studio Series (1-3 VAR)
Advanced studio offerings for students who have completed all other course offerings in a specific discipline. Scheduled concurrently with lower-division studios. Repeatable for a maximum of nine credits. Prerequisite: permission of instructor. (F,S,SS)

ART 410 Senior Career Orientation 2(2-0)
Formal presentation of student's academic and creative portfolio to the art faculty. Senior exhibition and artist's statement, resumes and job placement interviews. Prerequisite: senior standing. (F,S,SS)

ART 411 Twentieth-Century Art 3(3-0)
A survey of major developments in the visual arts, art theory, and criticism during the twentieth century. Prerequisite: ART 212. (*)

ART 412 Contemporary Art (1-3 VAR)
A study of selected recent developments in the visual arts. Reading, viewing, and discussion of new developments in media, art theory and criticism. Prerequisite: ART 212. (*)

ART 413 Native American Art 3(3-0)
A study of art and visual design in Native North American cultures from prehistory to contemporary times. Prerequisite: ART 212. (*)

ART 414 Asian Art 3(3-0)
A survey of art from major cultures of Asia and the Far East from ancient to contemporary times. Prerequisite: ART 211. (*)

ART 415 Latin American Art 3(3-0)
A survey of art of Latin America from ancient to the contemporary times. Includes Chicano art. Prerequisite: ART 212. (*)

ART 433 Advanced Site Art 3(0-6)
Advanced projects in Site Art that involve the presentation and creation of site specific sculptural forms. Prerequisite: art core or permission of instructor. (F,S,SS)

ART 434 Painting III 3(0-6)
Advanced painting with an emphasis on individual development. Focus pertains to formal, pictorial and technical problems met in developed personal imagery. Prerequisite: ART 334 (F,S,SS)

ART 442 Drawing IV 3(1-4)
Emphasis on development of individual skills of perception and exploration of new techniques and materials. May be repeated twice. Prerequisite: ART 342 (F,S)

ART 447 Advanced Ceramics/ Kiln Construction 3(0-6)
This course explores advanced theories and techniques involved in working with clay: forming, firing, glazing, kiln design and construction. (Repeatable to 9 hours.) Prerequisite: permission of instructor. (F,S,SS)

ART 470 Printmaking III (1-3 VAR)
Advanced investigation into multiple image production through individual techniques and interest. Prerequisite: Art 270, Art 370 or permission of instructor. (*)

ART 475 Computer Animation II (1-3 VAR)
The creative application of microcomputers and interactive software to produce advanced 3-D animations on video tape. No programming required. Prerequisite: Art core or permission of instructor. (Repeatable once.) (*)

ART 481 Advanced Graphic Design I 3(1-4)
Using advanced principles, this workshop operates as a professional studio with designers, an art director, production manager, copywriter, computer manager, etc., producing posters, logos and brochures. Prerequisite: ART 281, 381 or permission of instructor. (F,S,SS)

ART 482 Advanced Graphic Design II 3(0-6)
Further development of professional practice in the studio workshop with fully advanced participation as designers, managers, and directors. Prerequisite: ART 281, 381 and 481 or permission of instructor. (F,S,SS)

ART 491 Special Topics (1-5 VAR)
(F,S,SS)

ART 494 Field Experience (1-5 VAR)
Off-campus individual experience providing transition from classroom instruction to on-the-job experience. Prerequisites: senior standing and permission of instructor. (F,S,SS)

ART 495 Independent Study (1-5 VAR)
Individual tutorial experience. Prerequisites: junior or senior standing and permission of instructor. (F,S,SS)

ART 496 Cooperative Education Placement (1-4 VAR)
Prerequisite: permission of instructor. (F,S,SS)

ART 497 Studio Series (1-3 VAR)
Advanced sections of studio offerings. Repeatable. Prerequisite: ART 397 or permission of instructor. (F,S,SS)

GRADUATE COURSES

ART 500 Workshop (1-5 VAR)
Using materials and techniques based on advanced concepts and ideas. Prerequisite: permission of instructor and graduate standing. (F,S,SS)

ART 591 Special Topics (1-3 VAR)
Prerequisite: permission of instructor and graduate standing. (F,S,SS)

AUTOMOTIVE PARTS AND SERVICE MANAGEMENT (APSM)

UNDERGRADUATE COURSES

APSM 105 Introduction to the Parts and Service Industry 1(1-0)
Introduction to the industry from viewpoint of history, social impact, organization structure, manpower needs, and future growth. (F)

APSM 115 Automotive Engine Design, Operation and Repair 5(3-4)
Design, operation and repair techniques of current and future automotive engines. (F)

APSM 125 Automotive Suspension and Brake Systems 3(3-0)
Design and theory of front and rear automotive suspensions, steering, and brake systems. (S)

APSM 125L Automotive Suspension and Brake Systems Lab 1(0-2)
Corequisite: APSM 125. (S)

APSM 155 Automotive Parts Operations 4(4-0)
The complete spectrum of jobber and dealer parts department, from counter to manager operations, to include electronic cataloging, customer service, introduction of parts computers. (F)

APSM 165 Automotive Power Trains and Drive Lines 3(3-0)
Design and theory of standard and automatic transmissions, clutches, drive lines, differentials, and transaxles. Corequisite: APSM 165L (S)

APSM 165L Automotive Power Trains and Drive Lines Lab 1(0-2)
Corequisite: APSM 165. (S)

APSM 225 Power and Energy Technology 3(3-0)
Current uses of different forms of energy, the technology involved in generating power from various sources and the impact on society and the environment. (S)

APSM 235 Automotive Fuel Systems and Exhaust Emissions 3(3-0)
Design and theory of automotive fuel systems, carburetion, fuel injection, turbo charging, and supercharging; functions and design of automotive emissions systems. Corequisite:
APSM 235L. (S)

APSM 235L Automotive Fuel Systems and Exhaust Emissions Systems Lab 1(0-2)
Corequisite: APSM 235. (S)

APSM 245 Automotive Electrical Systems I 3(3-0)
Design and theory of operation of automotive electrical circuits; ignition, starting, charging, and accessory circuits, with study of diagnostic equipment used to diagnose system malfunctions. (F)

APSM 245L Automotive Electrical Systems Laboratory I 1(0-2)
Corequisite: APSM 245. (F)

APSM 255 Automotive Electrical Systems II 3(3-0)
Design and operational theory of solid state ignitions systems and computer-controlled systems including engine, braking, transmission, emission, and comfort systems. Prerequisite: APSM 245/245L. Corequisite: APSM 255L. (S)

APSM 255L Automotive Electrical Systems II Lab 1(0-2)
Corequisite: APSM 255. (S)

APSM 265 Automotive Parts Management Systems 4(3-2)
A study of automotive parts service management software systems utilized by industry in distribution, inventory, basic procedures. Prerequisite: APSM 105 and 155. (S)

APSM 296 Cooperative Education Placement (1-5 Var)
Supervised industrial field work. Prerequisite: freshman or sophomore standing, APSM major. (F,S)

APSM 305 Auto Customer Service Regulatory Issues 3(3-0)
A study of automotive industry management theory, styles, equipment, communications and regulatory issues. Prerequisites: APSM 155 and 265. (F)

APSM 325 Fuels and Lubricant Production, Marketing and Conservation 3(3-0)
Petroleum industry; basic production processes, marketing techniques, alternate fuel sources, and conservation techniques. Prerequisite: senior standing or permission of adviser. (F)

APSM 335 Automotive Shop Practices 5(2-6)
Diagnosis of electrical, fuel, engine, brake and transmission systems; study of service management and service writer duties. Prerequisites: APSM 115, 125, 235/235L, 245/245L, 255/255L and 345. (S)

APSM 345 Advanced Automotive Systems 5(3-4)
Theory and lab experience on new concepts in automotive electrical, fuel and suspension systems. Prerequisite: junior standing or permission of instructor. (F)

APSM 405 Personal Selling Methods and Techniques 4(3-2)
Research, preparation and presentation methods and techniques for selling in the automotive milieu. Prerequisite: junior or senior standing. (F)

APSM 425 Automotive Financial Management 5(4-2)
A study of financial management and analysis used by automotive aftermarket and original equipment businesses. Prerequisites: ACCTG 202, APSM 155, 265 and 305. (S)

APSM 490 Special Projects (1-5 VAR)
Individualized instruction within a special interest area, under the supervision of a department faculty member. Prerequisite: Junior or Senior standing and permission of instructor. (*)

APSM 491 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (F,S)

APSM 495 Independent Study (1-4 VAR)
Directed, independent study of topics agreed upon by the student and instructor. Prerequisite: APSM majors, junior standing, permission of instructor and department chair. (F,S,SS)

APSM 496 Cooperative Education Placement (1-5 VAR)
Supervised industrial field work. Prerequisite: junior or senior standing, APSM major. (F,S)

BILINGUAL BICULTURAL EDUCATION (BBE)

UNDERGRADUATE COURSES

BBE 400 Workshop (1-3 VAR)
Development of classroom materials and curriculum in bilingual education. (*)

BBE 401 Teaching the Limited English Proficient Student 2(1.5-1.5)
Methods and techniques of teaching English to children of linguistically and culturally different backgrounds. K-5 and 6-12 focus. Field experience required. Prerequisite: admission to teacher education program. (F,S)

BBE 403 Teaching Elementary Subjects in Bilingual Education 3(2-3)
Teaching elementary social studies, science, and health in bilingual settings. (F,S)

BBE 460 Survey of Language/Cultural Tests in Bilingual Education 2(2-0)
Introduction to current language/cultural instruments for the prospective bilingual education teacher in the elementary school. (F)

BBE 495 Independent Study (1-2 VAR)
For the student specializing in bilingual education. (F,S)

GRADUATE COURSES

BBE 500 Workshop (1-3 VAR)
Practical in development of classroom materials/ curriculum in bilingual education. Prerequisite: graduate standing. (*)

BBE 541 Survey of Research in Bilingual Education 2(2-0)
Prerequisite: graduate standing. (*)

BBE 595 Independent Study (1-2 VAR)
For the student specializing in bilingual education. Prerequisite: graduate standing. (*)

BIOLOGY (BIOL)

UNDERGRADUATE COURSES

BIOL 100 Principles of Biology 3(3-0)
Introduction to basic principles common to all facets of biology. Topics include a brief history of biology, the scientific method, the diversity of life, cell structure and reproduction, and metabolism. (F,S)

BIOL 100L Principles of Biology Lab 1(0-2)
To expose the student to problem-solving skills emphasizing the importance of observation and data accumulation. Corequisite: BIOL 100. (F,S)

BIOL 101L Principles of Biology Lab for Education 1(0-2)
Hands-on, standards-based approach to understanding the basic concepts of biology and the scientific method. Designed for prospective elementary teachers. Corequisite: BIOL 100. (F,S)

BIOL 112 Nutrition 3(3-0)
Analysis of personal dietary habits and behavior in relation to basic human nutritional needs and food composition. (CE,F,S)

BIOL 121 Environmental Conservation 3(3-0)
Historical review of humankind's interrelationship with and impact on the natural environment. Basic principles of ecology and current issues relating to the use of natural resources and environmental problems. (F,S,SS)

BIOL 121L Environmental Conservation Lab 1(0-2)
Optional field studies to augment BIOL 121. Corequisite: BIOL 121. (F,S,SS)

BIOL 160 (CHEM 160) Elementary Concepts in Science I 3(2-2)
Hands-on, standards-based approach to understanding basic concepts of chemistry and life sciences, including science technology and ethics. Integrated lecture, lab discussion periods. (F,S,SS)

BIOL 162 (EXHP 162) Personal Health 3(3-0)
The development of knowledge and the scientific basis for the analysis, evaluation and promotion of personal health and wellness. (F,S)

BIOL 171 Career Planning I 1(1-0)
Identifying career options and creating a personalized educational program. (F,S)

BIOL 180 Introduction of Cell Biology 3(3-0)
Introduction to basic cell structures and functions, and the process of scientific inquiry. Includes cell reproduction, metabolism, molecular biology and cell specialization. Corequisite: BIOL 180L. (F,S)

BIOL 180L Introduction to Cell Biology Lab 1(0-2)
Introduction to cell biology techniques and scientific inquiry, including observation, data collection and analysis. Corequisite: BIOL 180. (F,S)

BIOL 191 College Biology I 4(4-0)
Study of cell chemistry; cell structure and function; metabolism; cell reproduction and heredity; and prokaryotic, algal, plant and fungal diversity. Prerequisites: one year high school algebra or equivalent, and one year high school chemistry or equivalent, and one year high school biology or equivalent. Corequisite: BIOL 191L. (F,S)

BIOL 191L College Biology I Laboratory 1(0-2)
Hands-on exposure to biology lab techniques and the scientific method. Corequisite: BIOL 191. (F,S)

BIOL 192 College Biology II 4(4-0)
Continuation of BIOL 191. Study of evolution of biological diversity, including protozoa and animal form and function, and ecology. Prerequisites: BIOL 191 and BIOL 191L. Corequisite: BIOL 192L. (F,S)

BIOL 192L College Biology II Laboratory 1(0-2)
Exposure to lab techniques for biology and the scientific method. Prerequisites: BIOL 191 and BIOL 191L. Corequisite: BIOL 192. (F,S)

BIOL 201 Botany 3(3-0)
Morphology, anatomy, physiology, phylogeny and ecology of the major plant groups. Prerequisite: BIOL 100 or permission of instructor. Corequisite: BIOL 201L. (CE,F,S)

BIOL 201L Botany Lab 2(0-4)
Corequisite: BIOL 201. (CE,F,S)

BIOL 202 Zoology 3(3-0)
Anatomy, physiology, ecology and phylogeny of major and minor invertebrate and vertebrate taxa. Prerequisite: BIOL 100 or permission of instructor. Corequisite: BIOL 202L. (CE,F,S)

BIOL 202L Zoology Lab 2(0-4)
Corequisite: BIOL 202. (CE,F,S)

BIOL 206 Introduction to Microbiology 3(3-0)
For students of nursing and allied health. Applied aspects of medical microbiology. Corequisite: BIOL 206L. (CE,F)

BIOL 206L Introduction to Microbiology Lab 1(0-3)
Corequisite: BIOL 206. (CE,F)

BIOL 220 Medical Terminology 2(2-0)
Basic prefixes, word roots, combining forms and suffixes of medical terminology and human anatomy are covered, including pronunciation and patient charting. (S)

BIOL 223 Human Physiology and Anatomy I 3(3-0)
Study of human physiology and anatomy designed for students who require or desire a thorough understanding of the functional and structural aspects of the human body. Not for the majority of biology majors except Teacher Education. Topics include body orientation, physiologically important molecules, the cell, tissues, integument, skeleton, muscle, nervous system, and special senses. Recommended prerequisites: 1 year of High School Biology and Chemistry. Corequisite: BIOL 223L. (CE,F)

BIOL 223L Human Physiology and Anatomy I Lab 1(0-2)
Corequisite: BIOL 223. (CE,F)

BIOL 224 Human Physiology and Anatomy II 3(3-0)
A continuation of BIOL 223. Students are permitted to enter the course before completing BIOL 223. Topics include endocrines, respiration, digestion, metabolism, excretion, fluid-electrolyte balance, cardiovascular, and reproduction. Recommended prerequisites: 1 year of High School Biology and Chemistry. Corequisite: BIOL 224L. (CE,S)

BIOL 224L Human Physiology and Anatomy II Lab 1(0-2)
Corequisite: BIOL 224. (CE,S)

BIOL 230 Emergency Medical Technician (EMT) Training 6(4-6)
Meets the U.S. D.O.T. 1998 Revised EMT-Basic National Standard Curriculum. Clinical time in hospital emergency departments and on ambulances. Hepatitis B vaccination required first week of class. Eligible to take Colorado certification written examination. See instructor prior to registering for the class. Prerequisite: CPR for health care providers. (F,S)

BIOL 291 Special Topics (1-4 VAR) (F,S,SS)

BIOL 294 Field Experience (1-4 VAR)
Volunteer work experience under program director, department coordinator and faculty supervisor. (S/U grades) (F,S,SS)

BIOL 301 General Microbiology 3(3-0)
Introduction to the bacteria and viruses, including microbial genetics and physiology. Prerequisites: BIOL 191/191L and 192/192L, or BIOL 201/201L and 202/202L. Also need CHEM 211/211L or 301/30lL. Corequisite: BIOL 301L. (CE,F)

BIOL 301L General Microbiology Lab 2(0-4)
Corequisite: BIOL 301. (CE,F)

BIOL 302 Medical Microbiology 2(2-0)
Survey of pathogenic bacteria, viruses and fungi Prerequisite: BIOL 301 or permission of the instructor. Corequisite: BIOL 302L. (CE,S)

BIOL 302L Medical Microbiology Lab 2(0-4)
Corequisite: BIOL 302. (CE,S)

BIOL 311 (CHEM 311) Survey of Biochemistry 3(3-0)
Survey of biochemistry. For pre-health professional students. Intermediary metabolism is taught at an intermediate level and in the context of human nutrition and clinical applications. Prerequisites: CHEM 211 or 301. (F)

BIOL 321 Comparative Vertebrate Anatomy 3(3-0)
Comparative study of developmental and functional anatomy of vertebrate animals. Prerequisites: BIOL 191 and BIOL 192, or BIOL 202 or permission of instructor. Corequisite: BIOL 324L. (CE,S)

BIOL 321L Comparative Vertebrate Anatomy Lab 2(0-4)
Corequisite: BIOL 321. (CE,S)

BIOL 324 (SPCOM 324) Anatomy of the Head, Neck and Chest 2(2-0)
Anatomical structures of the head, neck, and chest with analysis of development and function. Prerequisites: BIOL 221 or BIOL 321 or permission of instructor. Corequisite: BIOL 324L. (CE,F)

BIOL 324L (SPCOM 324L) Anatomy of the Head, Neck, and Chest Lab 1(0-2)
Corequisite: BIOL 324. (CE,F)

BIOL 341 Vertebrate Physiology 3(3-0)
Basic general physiology and the functions of animal and human body systems. Prerequisites: BIOL 191 and 192 or BIOL 201 and 202. Also need CHEM 211/211L or 301/301L. Corequisite: BIOL 341L. (CE,F)

BIOL 341L Vertebrate Physiology Lab 1(0-2)
Corequisite: BIOL 341. (CE,F)

BIOL 350 Genetics 2(2-0)
Survey of basic Mendelian genetics, genetic mapping and population genetics. Prerequisites: BIOL 191 and 192, and MATH 121. (F,S)

BIOL 351 Advanced Genetics and Molecular Biology 2(2-0)
Study of the molecular flow of genetic information, gene regulation and cancer genetics. Prerequisites: BIOL 350 and CHEM 121/121L and CHEM 122/122L. Corequisite: BIOL 351L. (CE,F,S)

BIOL 351L Advanced Genetics and Molecular Biology Laboratory 2(0-4)
Molecular biology investigations of gene regulation and recombinant DNA. Prerequisites: BIOL 350 and CHEM 121/121L and CHEM 122/122L. Corequisite: BIOL 351. (CE,S)

BIOL 352 Evolution 2(2-0)
Historical view of the theory of evolution with emphasis upon man's place in nature and the forces which have produced evolution. (CE,S)

BIOL 353 Ecology 4(4-0)
Interaction and interdependencies between organisms and their environment. Prerequisites: BIOL 191 and 192, or BIOL 201 or 202, or permission of instructor. Corequisite: BIOL 353L. (CE,F)

BIOL 353L Ecology Field Studies 1(0-2)
Corequisite: BIOL 353. (CE,F)

BIOL 371 Career Planning II 1(1-0)
Creating and exploring graduate school and employment opportunities. Recommended for the fall semester of the Junior year. Prerequisites: BIOL 171 or permission of instructor. (F,S)

BIOL 378 Laboratory in Teaching Biology 1(0-2)
Laboratory preparation, safety, instruction and methods under the guidance and supervision on an instructor. Prerequisite: approval of instructor. (F,S)

BIOL 394 Field Experience (1-4 VAR)
Volunteer work experience under program director, program coordinator, and faculty supervisor (S/U grades) (F,S,SS)

BIOL 402 Immunology 3(3-0)
Humoral and cell-mediated immunity including immune disorders and theories of immunological techniques. Prerequisites: BIOL 301/301L. (S)

BIOL 411 (CHEM 411) Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acids and lipids. An introduction to enzymes and coenzymes. Prerequisite: CHEM 302, or permission of instructor. (F)

BIOL 412 Cellular Biology 3(3-0)
Structural and functional organization of the cell, life cycles of cells, intracellular digestion, protein synthesis and cell death. Prerequisites: BIOL 301 and 301L or BIOL 350 and 351, and CHEM 211 and 211L or CHEM 301 and 301L. Corequisite: BIOL 412L. (CE,S)

BIOL 412L Cellular Biology Lab 1(0-3)
Corequisite: BIOL 412. (CE,S)

BIOL 421 Histology 2(2-0)
A microscopic study of vertebrate tissues and organs. Prerequisites: BIOL 192/192L or BIOL 202/202L or BIOL 223/223L or BIOL 321/321L. Corequisite: BIOL 421L. (CE,F)

BIOL 421L Histology Lab 2(0-4)
Corequisite: BIOL 421. (CE,F)

BIOL 426 Plant Morphology 2(2-0)
Forms, basic structures, relationships, life histories and evolutionary trends of representatives of the major autotrophic plant groups. Prerequisites: BIOL 191 and 192, or BIOL 201 or permission of instructor. Corequisite: BIOL 426L. (CE,S)

BIOL 426L Plant Morphology Lab 1(0-2)
Corequisite: BIOL 426. (CE,S)

BIOL 432 Embryology 2(2-0)
Development of representative vertebrate and invertebrate animals with particular emphasis on the early embryology of Branchiostoma, frog, chick, and mammal. Prerequisites: BIOL 191 and 192, or BIOL 202 or permission of instructor. Corequisite: 432L. (CE,F)

BIOL 432L Embryology Lab 2(0-4)
Corequisite: BIOL 432. (CE,F)

BIOL 440 Molecular Genetics 2(2-0)
Molecular and Biochemical basis of heredity. Regulation of gene expression. Prerequisite: BIOL 351 and 351L. Corequisiste: BIOL 440L. (S)

BIOL 440L Molecular Genetics Lab 1(0-2)
Corequisite: BIOL 440 (S)

BIOL 441 Freshwater Invertebrate Zoology 2(2-0)
Classification, phylogeny, systematics, morphology, physiology, and natural history of freshwater invertebrates inclusive of insects. Prerequisites: BIOL 191 and BIOL 192, or BIOL 202 or permission of instructor. Corequisite: BIOL 441L. (CE,S,E)

BIOL 441L Freshwater Invertebrate Zoology Lab 2(0-4)
Corequisite: BIOL 441. (CE,S,E)

BIOL 443 Limnology 2(2-0)
Biology, chemistry and physics of lakes and rivers. Prerequisites: BIOL 191 and 192, or BIOL 201 and 202 or permission of instructor. Corequisite: BIOL 443L. (CE,S,O)

BIOL 443L Limnology Lab 2(0-4)
Corequisite: BIOL 443 (CE,S,O)

BIOL 452 Advanced Microscopy 2(2-0)
Theory and application of light and electron micriscopy to biological sciences. Includes preparation of cells and tissues for examination, scope operation, and image analysis. Prerequisite: permission of instructor.
Corequisite: BIOL 452L (CE,F)

BIOL 452L Advanced Microscopy Lab 2(0-4)
Corequisite: BIOL 452. (CE,F)

BIOL 465 Environmental Toxicology 3(3-0)
Basic principles of toxicology, interaction of xenobiotics with living organisms and the environment, and the impact of pollutants on the ecosystem. Prerequisites: BIOL 191 and 192, or BIOL 201 and 202; and CHEM 122 and 302, or permission of instructor. (S)

BIOL 473 Med. Tech. Clinical Rotation I 12(5-14)
Coursework and clinical training in an affiliated medical laboratory sciences facility. Specific course of study determined by facility. Prerequisite: consent of instructor. (F)

BIOL 474 Med. Tech. Clinical Rotation II 12(5-14)
Coursework and clinical training in an affiliated medical laboratory sciences facility. Specific course of study determined by facility. Prerequisite: BIOL 473 and consent of instructor. (S)

BIOL 475 Med. Tech. Clinical Rotation III 6(3-6)
Coursework and clinical training in an affiliated medical laboratory sciences facility. Specific course of study determined by facility. Prerequisite: BIOL 474 and consent of instructor. (SS)

BIOL 479 Ichthyology 2(2-0)
The morphology, taxonomy and ecology of fishes; an introduction to fishery biology and aquaculture. Field trips are an integral part of the course. Prerequisites: BIOL 191 and 192, or BIOL 202 and 202L. Corequisite: BIOL 479L. (CE,F)

BIOL 479L Ichthyology Lab 1(0-2)
Corequisite: BIOL 479. (CE,F)

BIOL 481 Entomology 2(2-0)
Structure, classification, behavior, ecology and control of insects. Prerequisites: BIOL 191 and 192, or BIOL 202 or permission of instructor. Corequisite: BIOL 481L. (CE,F)

BIOL 481L Entomology Lab 1(0-2)
Corequisite: BIOL 481. (CE,F)

BIOL 483 Mammalogy 2(2-0)
Evolution, classification and biology of mammals; practice in identifying and preparing specimens. Prerequisites: BIOL 191 and 192, or BIOL 202. Corequisite: BIOL 483L. (CE,S)

BIOL 483L Mammalogy Lab 1(0-2)
Corequisite: BIOL 483. (CE,S)

BIOL 484 Ornithology 2(2-0)
Classification, life history, laboratory and field identification of birds. Prerequisites: BIOL 191 and 192, or BIOL 202. Corequisite: BIOL 484L. (CE,S)

BIOL 484L Ornithology Lab 1(0-2)
Corequisite: BIOL 484. (CE,S)

BIOL 485 Plant Taxonomy 2(2-0)
Identification of the common vascular plant families of Colorado with an emphasis on the flowering plants; study of their systematic relationships. Prerequisites: BIOL 191 and 192, or BIOL 201 or permission of instructor. Corequisite: BIOL 485L. (CE,F)

BIOL 485L Plant Taxonomy Lab 2(0-4)
Corequisite: BIOL 485. (CE,F)

BIOL 489 Medical and Veterinary Entomology 3(3-0)
Role of insects and other arthropods in the causation of human and animal diseases. Principles of epidemiology. Parasitological aspect of arthropod-vectored diseases. Prerequisites: BIOL 191 and 192, or BIOL 100 and 202. (S)

BIOL 491 Special Topics (1-4 VAR) (F,S,SS)

BIOL 493 Seminar 1(1-0)
Seminar for majors and minors concerning unique, current, or unusual topics in biology. Speakers may include guests, faculty, or students. Required of majors. Prerequisite: permission of program chairman. (F,S)

BIOL 494 Field Experience (1-4 VAR)
Volunteer work experience under program director, program coordinator and faculty supervisor. (S/U grades). (F,S,SS)

BIOL 495 Independent Study (1-4 VAR)
Prerequisite: junior standing, biology major, permission of instructor and department. (F,S,SS)

BIOL 498 Internship (5-15 VAR)
1. Measurement and control of air pollution
2. Noise and the environment
3. Industrial hygiene and acci-dent prevention
4. Milk and food sanitation
5. Water and waste-water sanitation
6. Housing and institutional environmental health
7. Solid waste management

(S/U grading) Prerequisite: permission of department. (F,S,SS)

GRADUATE COURSES

Admission to graduate courses requires approval of the adviser for the graduate program.

BIOL 502 Immunology 3(3-0)
Humoral and cell-mediated immunity including immune
disorders and theories of immunological techniques. (S)

BIOL 511 (CHEM 511) Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acid and lipids. An introduction to enzymes and coenzymes. Prerequisite: one year undergraduate Organic Chemistry. (F)

BIOL 512 Cellular Biology 3(3-0)
Structural and functional organization of the cell, life cycles of cells, intracellular digestion, protein synthesis and cell death. Prerequisites: BIOL 301 and 301L or BIOL 350 and 351, and CHEM 301 and 301L. Corequisite: BIOL 512L. (S)

BIOL 512L Cellular Biology Lab 1(0-3)
Corequisite: BIOL 512 (S)

BIOL 521 Histology 2(2-0)
A microscopic study of vertebrate tissues and organs. Prerequisites: BIOL 192/192L or BIOL 202/202L, or BIOL 223/223L or BIOL 321/321L. Corequisite: BIOL 521L. (F)

BIOL 521L Histology Lab 2(0-4)
Corequisite: BIOL 521. (F)

BIOL 526 Plant Morphology 2(2-0)
Forms, basic structures, relationships, life histories and evolutionary trends of representatives of the major autotrophic plant groups. Corequisite: BIOL 526L. (S)

BIOL 526L Plant Morphology Lab 1(0-2)
Corequisite: BIOL 526. (S)

BIOL 532 Embryology (2-0)
Development of representative vertebrate and invertebrate animals with particular emphasis on the early embryology of Branchiostoma, frog, chick and mammal. Corequisite: BIOL 532L. (F)

BIOL 532L Embryology Lab 2(0-4)
Corequisite: BIOL 532. (F)

BIOL 540 Molecular Genetics 2(2-0)
Molecular and biochemical basis of heredity. Regulation of gene expression. Prerequisite: BIOL 351 and 351L or permission of instructor. Corequisite: BIOL 540L. (S)

BIOL 540L Molecular Genetics Lab 1(0-2)
Corequisite: BIOL 540. (S)

BIOL 541 Freshwater Invertebrate Zoology 2(2-0)
Classification, phylogeny, systematics, morphology, physiology, and natural history of freshwater invertebrates inclusive of insects. Corequisite: BIOL 541L. (S/E)

BIOL 541L Freshwater Invertebrate Zoology Lab 2(0-4)
Corequisite: BIOL 541. (S/E)

BIOL 543 Limnology 2(2-0)
Biology, chemistry, and physics of lakes and rivers. Corequisite: BIOL 543L. (S/O)

BIOL 543L Limnology Lab 2(0-4)
Corequisite: BIOL 543. (S/O)

BIOL 552 Advanced Microscopy 2(2-0)
Theory and application of light and electron microscopy to biological sciences. Includes preparation of cells and tissues for examination, scope operation, and image analysis. Corequisite: BIOL 552L. (F)

BIOL 552L Advanced Microscopy Lab 2(0-4)
Corequisite: BIOL 552. (F)

BIOL 565 Environmental Toxicology 3(3-0)
Basic principles of toxicology, interaction of the xenobiotics with living organisms and the environment, and the impact of pollutants on the ecosystem. Prerequisites: BIOL 191 and 192, or BIOL 201 and 202; and CHEM 122 and 302, or permission of instructor. (S)

BIOL 579 Ichthyology 2(2-0)
The morphology, taxonomy and ecology of fishes; an introduction to fishery biology and aquaculture. Field trips are an integral part of the course. Corequisite: BIOL 579. (F)

BIOL 570 Ichthyology Lab 1(0-2)
Corequisite: BIOL 579. (F)

BIOL 581 Entomology 2(2-0)
Structure, classification, behavior, ecology and control of insects. Prerequisite: BIOL 191 and 192, or BIOL 202 or permission of instructor. Corequisite: BIOL 581L. (CE,F)

BIOL 581L Entomology Lab 1(0-2)
Corequisite: BIOL 581. (CE,F)

BIOL 583 Mammalogy 2(2-0)
Evolution, classification and biology of mammals; practice in identifying and preparing specimens. Corequisite: BIOL 583L. (S)

BIOL 583 Mammalogy Lab 1(0-2)
Corequisite: BIOL 583 (S)

BIOL 584 Ornithology 2(2-0)
Classification, life history, laboratory and field identification of birds. Corequisite: BIOL 584L. (S)

BIOL 584L Ornithology Lab 1(0-2)
Corequisite: BIOL 584. (S)

BIOL 585 Plant Taxonomy 2(2-0)
Identification of common vascular plant families of Colorado with an emphasis on the flowering plants; study of their systematic relationships. Corequisite: BIOL 585L. (F)

BIOL 585L Plant Taxonomy Lab 2(0-4)
Corequisite: BIOL 585. (F)

BIOL 589 Medical and Veterinary Entomology 3(3-0)
Role of insects and other arthropods in the causation of human and animal diseases. Principles of epidemiology. Parasitological aspect of arthropod-vectored diseases. Prerequisites: BIOL 191 and 192, or BIOL 100 and 202. (S)

BIOL 591 Special Topics (1-4 VAR)
(F,S,SS)

BIOL 595 Independent Study (1-4 VAR)
Prerequisite: graduate standing, biology major, permission of instructor and department. (F,S,SS)

BIOL 598 Graduate Internship (1-4 VAR)
Volunteer or paid work experience under the combined supervision of the selected organization and a faculty member. Prerequisite: graduate standing. (S/U grading) (F,S,SS)

BIOL 599 Thesis Research (1-6 VAR)
(IP and S/U grading). (F,S,SS)

BUSINESS ADMINISTRATION (BUSAD)

UNDERGRADUATE COURSES

BUSAD 101 The Business Enterprise in a Global Economy 2(2-0)
Introduction to the modern business enterprise with emphasis on global business concepts, ethical behavior, legal issues, and the interaction of business with society. Business career exploration. (F,S)

BUSAD 160 Introduction to Computers and Information Processing 2(1-2)
Concepts and applications of computers as used by business and management. Emphasis is given to computer productivity software with hands-on exercises. (F,S)

BUSAD 161 Business Computer Applications 1(0-2)
Business computer applications for transfer students or others that do not have all software applications required in the business curriculum. Software topic tailored to student need. (F,S)

BUSAD 255 Data Management for Decision Making 3(3-0)
Research methods for business applications. Formulating research objectives, questionnaire design, reliability and validity. Use of variables, data, sampling methods and descriptive statistics. (F,S)

BUSAD 265 Inferential Statistics and Problem Solving 3(3-0)
Statistical methods in business, sampling, parameter estimation, hypothesis testing, correlation, multiple regression and chi square tests. Use of problem solving methods. Prerequisite: MATH 220, BUSAD 255. (F,S)

BUSAD 270 Business Communications 3(3-0)
Means of extending management capabilities through effective internal and external communications, including data organization and presentation. Prerequisites: ENG 101 and 102. (F,S)

BUSAD 280 Business Software and e-commerce 2(1-2)
Application of business software including project management, business planning, database, and web page development. Exploration of electronic commerce concepts and applications. Prerequisite: BUSAD 160 or equivalent. (F,S)

BUSAD 302 Ethical Issues and the Legal Environment of Business 3(3-0)
Examination of issues addressing ethical, legal, social and environmental responsibilities of businesses toward government, customers, employees, and the general public. Prerequisite: junior standing. (F,S)

BUSAD 375 International Business 3(3-0)
Opportunities and problems of multinational firms including environmental factors and formulation of strategies and policies for all functional areas of business. Prerequisites: FIN 330, MGMT 201 and MKTG 340. (F,S)

BUSAD 480 Small Business Studies 3(3-0)
Integrating prior studies in business into a realistic approach to assist in solving problems faced by selected firms and organizations in the community. Prerequisites: senior standing or permission of instructor. (F,S,SS)

BUSAD 490 Special Projects (1-6 VAR) (*)

BUSAD 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

BUSAD 495 Independent Study (1-3 VAR)
Prerequisites: senior standing and permission of department chair. (*)

BUSAD 498 Internship (1-6 VAR)
Supervised field work in selected business, social and governmental organizations; supplemented by written reports (S/U grades). Prerequisites: junior or senior standing in the School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

BUSAD 502 Business Ethics and Environment 3(3-0)
The impact of continued social, political, economic, technological, and legal pressures upon ethical business issues and managerial decision making. Prerequisite: graduate standing. (*)

BUSAD 575 International Business 3(3-0)
Familiarize students with the differences in management operations domestically and internationally (the scope, activities, managerial problems and decisions) and challenges facing multinational managers/organizations. Prerequisite: graduate standing. (*)

BUSAD 580 Business Research Methodology 3(3-0)
Fundamentals of qualitative and quantitative research design including development of hypothesis and assessment techniques in preparation for undertaking research projects. Prerequisite: graduate standing. (*)

BUSAD 591 Special Topics 3(3-0)
Prerequisite: graduate standing (*)

BUSAD 592 Research (1-6 VAR)
The student will work under the close supervision of a graduate faculty member in basic or applied research resulting in a thesis or report of high academic quality (IP and S/U grading). (*)

BUSAD 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: graduate standing. (*)

BUSAD 599 Thesis Research (1-6 VAR)(*)

CHEMISTRY (CHEM)

UNDERGRADUATE COURSES

CHEM 101 Chemistry and Society 3(3-0)
Chemistry related to the everyday world. Drugs, food, pollution, pesticides, consumer products, energy, and home health. Principally for non-science majors. (CE,F,S)

CHEM 101L Chemistry and Society Lab 1(0-2)
Laboratory is optional. Experiments to exemplify the logical steps of problem solving and explore the physical and chemical world. Corequisite: CHEM 101. (CE,F,S)

CHEM 111 Principles of Chemistry 3(3-0)
Fundamental laws, theories and principles of chemical reactions. Credit not applicable for chemistry majors or minors. Corequisite: CHEM 111L. (CE,F,S)

CHEM 111L Principles of Chemistry Lab 1(0-2)
Experiments using common chemical equipment and techniques to aid the student in learning what occurs in the chemical laboratory. Corequisite: CHEM 111. (F,S)

CHEM 121 General Chemistry I 4(4-0)
For science, engineering and pre-professional curricula. Atomic theory, chemical bonding, periodic properties, states of matter, oxidation-reduction, stoichiometry, thermochemistry, inorganic nomenclature. Prerequisites: one year of high school algebra or equivalent, and one year high school chemistry or equivalent. Corequisite: CHEM 121L. (F,S)

CHEM 121L General Chemistry Lab I 1(0-2)
Corequisite: CHEM 121. (F,S)

CHEM 122 General Chemistry II 4(4-0)
Continuation of CHEM 121. Thermodynamics, kinetics, equilibria, nuclear chemistry, electrochemistry, acids and bases, solutions, descriptive inorganic chemistry. Prerequisite: CHEM 121. Corequisite: CHEM 122L. (F,S)

CHEM 122L General Chemistry Lab II 1(0-2)
Laboratory component to CHEM 122. Corequisite: CHEM 122. (F,S)

CHEM 150 (PHYS 150) Elementary Concepts in Physics and Chemistry 4(3-2)
Hands-on standards-based approach to understanding basic concepts of physics and chemistry. Integrated lecture, lab and discussion periods. (F,S,SS)

CHEM 160 (BIOL 160) Elementary Concepts in Science I 3(2-2)
Hands-on, standards-based approach to understanding basic concepts of chemistry and life sciences, including science technology and ethics. Integrated lecture, lab, discussion periods. (F)

CHEM 211 Introduction to Organic Chemistry 3(3-0)
Survey of organic chemistry chemical structure, reactivity and functional groups are presented in context of relevance to society. Prerequisite: CHEM 111. Corequisite: CHEM 211L (CE,S)

CHEM 211L Introduction to Organic Chemistry Lab 1(0-2)
Survey of organic chemistry laboratory course. Basic organic laboratory techniques and skills, both micro and macro scale are presented. Prerequisite: CHEM 111. Corequisite: CHEM 211. (S)

CHEM 221 Inorganic Chemistry 2(2-0)
Basic principles of inorganic chemistry. The main properties, reaction chemistry, and descriptive chemistry of inorganic elements and compounds. Prerequisite: CHEM 122. Corequisite: CHEM 221L. (F)

CHEM 221L Inorganic Chemistry Lab 1(0-3)
Inorganic laboratory techniques, inorganic qualitative analysis, synthesis and characterization. Corequisite: CHEM 221. (F)

CHEM 291 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

CHEM 301 Organic Chemistry I 3(3-0)
For majors and pre-professional students requiring a strong background in organic chemistry. Organic reactions and mechanisms as related to molecular structure. Prerequisite: CHEM 122. Corequisite: CHEM 301L. (F,S)

CHEM 301L Organic Chemistry Lab I 2(0-6)
Corequisite: CHEM 301. (F,S)

CHEM 302 Organic Chemistry II 3(3-0)
Continuation of CHEM 301. Prerequisite: CHEM 301. Corequisite: CHEM 302L. (F,S)

CHEM 302L Organic Chemistry Lab II 2(0-6)
Prerequisite: CHEM 301L. Corequisite: CHEM 302. (F,S)

CHEM 311 (BIOL 311) Survey of Biochemistry 3(3-0)
Survey of biochemistry. For pre-health professional students. Intermediary metabolism is taught at an intermediate level and in the context of human nutrition and clinical applications. Prerequisite: CHEM 211 or CHEM 301. (F)

CHEM 317 Quantitative Analysis 3(3-0)
Volumetric and gravimetric analysis integrated with instrumental analysis, both optical and electrometric methods. Prerequisite: CHEM 122. Corequisite: CHEM 317L. (F)

CHEM 317L Quantitative Analysis Lab 2(0-6)
Corequisite: CHEM 317. (F)

CHEM 321 Physical Chemistry I 3(3-0)
Chemical thermodynamics, chemical dynamics, quantum chemistry, chemical structure and spectroscopy. Prerequisite: CHEM 122. Corequisites: MATH 224 and PHYS 201 or 221. (F)

CHEM 322 Physical Chemistry II 3(3-0)
Continuation of CHEM 321. Prerequisite: CHEM 122. Corequisites: MATH 224 and PHYS 201 or 221. (S)

CHEM 323 Experimental Physical Chemistry 2(0-4)
Laboratory techniques in thermodynamics, chemical equilibria, phase phenomena, kinetics, spectroscopy. Prerequisite: CHEM 321 or permission of instructor. (*)

CHEM 378 Practicum in Laboratory Instruction 1(0-2)
Laboratory preparation, instruction, safety, and methods under the guidance of an instructor. May be repeated for a maximum of two credits. Prerequisite: Approval of instructor. (F,S)

CHEM 389 Scientific Literature Review 1(1-0)
Surveys of both print and web-based chemical and biochemical literature. May be repeated twice. Prerequisite: CHEM 302. (F,S)

CHEM 401 Advanced Organic Chemistry 3(3-0)
Topics of advanced organic chemistry, including organic reactions, mechanisms, natural products, and spectroscopy. Prerequisite: CHEM 302, or permission of instructor. Corequisite: CHEM 401L. (*)

CHEM 401L Advanced Organic Chemistry Lab 1(0-3)
Laboratory course to accompany CHEM 401. Molecular structure determination by chemical and instrumental methods. Corequisite: CHEM 401. (*)

CHEM 403 Polymer Chemistry 3(3-0)
Study of synthetic polymers including synthesis, mechanisms of formation, structure of elucidation, reactivity, properties, and industrial application. Biopolymers also will be considered. Prerequisites: CHEM 302/302L. (*)

CHEM 411 Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acids and lipids. An introduction to enzymes and coenzymes. Prerequisite: CHEM 302, or permission of instructor. (F)

CHEM 412 Biochemistry II 3(3-0)
Continuation of CHEM 411. Intermediary metabolism of carbohydrates, lipids, and amino acids. Bioenergetics. Prerequisite: CHEM 411. Corequisite: CHEM 412L. (S)

CHEM 412L Biochemistry II Lab 2(0-6)
Prerequisite: CHEM 302. Corequisite: CHEM 412. (S)

CHEM 419 Instrumental Analysis 3(3-0)
Instrumental techniques in chemical separations, electrochemistry, atomic, and molecular spectroscopy. Prerequisites: CHEM 317 and 321, or permission of instructor. Corequisite: CHEM 419L. (S)

CHEM 419L Instrumental Analysis Lab 2(0-6)
Prerequisites: CHEM 317 and 321 or permission of instructor. Corequisite: CHEM 419L. (S)

CHEM 421 Advanced Inorganic Chemistry 3(3-0)
Structure and bonding, coordination theory, periodic relations, equilibrium, kinetics, thermodynamics, descriptive chemistry. Prerequisite: CHEM 321, or permission of instructor. (S)

CHEM 425 Environmental Chemistry 3(3-0)
Chemical process in air, water and soil. Air, water analysis and treatment, pollution. Prerequisite: CHEM 321, or permission of instructor. (*)

CHEM 431 Radiochemistry 2(2-0)
Nuclear properties, interaction and detection of radiation, application to chemistry. Prerequisite: CHEM 322, or permission of instructor. (*)

CHEM 491 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

CHEM 492 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: approval of department chair. (F,S,SS)

CHEM 493 Seminar 1(1-0)
Presentation of a formal presentation on chemical research or a current topic in the chemical literature using software-based delivery methods. May be repeated once. Prerequisite: permission of department chair. (F,S)

CHEM 495 Independent Study (1-7 VAR)
Prerequisite: permission of instructor. (*)

CHEM 498 Internship (1-6 VAR)
Work experience in the chemistry discipline under the combined supervision of the selected organization and a faculty member. Prerequisite: permission of department chair. (F,S,SS)

GRADUATE COURSES

CHEM 501 Advanced Organic Chemistry 3(3-0)
Topics of advanced organic chemistry including organic reactions, mechanisms, natural products, spectroscopy, and industrial applications. Prerequisite: CHEM 302, or permission of instructor. (*)

CHEM 501L Advanced Organic Chemistry Lab 1(0-3)
Molecular structure determination by chemical and instrumental methods. Advanced synthetic techniques. Corequisite or Prerequisite: CHEM 501. (*)

CHEM 503 Polymer Chemistry 3(3-0)
Study of synthetic polymers including synthesis, mechanisms of formation, structure elucidation, reactivity, properties, and industrial application. Biopolymers also will be considered. Prerequisite: CHEM 302, or permission of instructor. (*)

CHEM 511 Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acid and lipids. An introduction to enzymes and coenzymes. Prerequisite: one year undergraduate Organic Chemistry. (F)

CHEM 512 Biochemistry II 3(3-0)
Intermediary metabolism of carbohydrates, lipids and amino acids. Bioenergetics. Prerequisite: CHEM 411 or 511. (S)

CHEM 512L Biochemistry II Lab 2(0-6)
Prerequisite: CHEM 302. Corequisite: CHEM 512. (S)

CHEM 519 Instrumental Analysis 3(3-0)
Instrumental techniques in chemical separations, electro-chemistry, atomic, and molecular spectroscopy. Prerequisite: CHEM 317 and 321, or permission of instructor. Co-requisite: CHEM 519L. (S)

CHEM 519L Instrumental Analysis Lab 2(0-6)
Prerequisite: CHEM 317 and 321, or permission of instructor. Corequisite: CHEM 519. (S)

CHEM 521 Advanced Inorganic Chemistry 3(3-0)
Structure and bonding, coordination theory, periodic relations, equilibrium, kinetics, thermodynamics, descriptive chemistry, industrial applications. Prerequisite: CHEM 321, or permission of instructor. (S)

CHEM 160 (BIOL 160) Elementary Concepts in Science I 3(2-2)
Hands-on, standards-based approach to understanding basic concepts of chemistry and life sciences, including science technology and ethics. Integrated lecture, lab, discussion periods. (F)

CHEM 211 Introduction to Organic Chemistry 3(3-0)
Survey of organic chemistry chemical structure, reactivity and functional groups are presented in context of relevance to society. Prerequisite: CHEM 111. Corequisite: CHEM 211L (CE,S)

CHEM 211L Introduction to Organic Chemistry Lab 1(0-2)
Survey of organic chemistry laboratory course. Basic organic laboratory techniques and skills, both micro and macro scale are presented. Prerequisite: CHEM 111. Corequisite: CHEM 211. (S)

CHEM 221 Inorganic Chemistry 2(2-0)
Basic principles of inorganic chemistry. The main properties, reaction chemistry, and descriptive chemistry of inorganic elements and compounds. Prerequisite: CHEM 122. Corequisite: CHEM 221L. (F)

CHEM 221L Inorganic Chemistry Lab 1(0-3)
Inorganic laboratory techniques, inorganic qualitative analysis, synthesis and characterization. Corequisite: CHEM 221. (F)

CHEM 291 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

CHEM 301 Organic Chemistry I 3(3-0)
For majors and pre-professional students requiring a strong background in organic chemistry. Organic reactions and mechanisms as related to molecular structure. Prerequisite: CHEM 122. Corequisite: CHEM 301L. (F,S)

CHEM 301L Organic Chemistry Lab I 2(0-6)
Corequisite: CHEM 301. (F,S)

CHEM 302 Organic Chemistry II 3(3-0)
Continuation of CHEM 301. Prerequisite: CHEM 301. Corequisite: CHEM 302L. (F,S)

CHEM 302L Organic Chemistry Lab II 2(0-6)
Prerequisite: CHEM 301L. Corequisite: CHEM 302. (F,S)

CHEM 311 (BIOL 311) Survey of Biochemistry 3(3-0)
Survey of biochemistry. For pre-health professional students. Intermediary metabolism is taught at an intermediate level and in the context of human nutrition and clinical applications. Prerequisite: CHEM 211 or CHEM 301. (F)

CHEM 317 Quantitative Analysis 3(3-0)
Volumetric and gravimetric analysis integrated with instrumental analysis, both optical and electrometric methods. Prerequisite: CHEM 122. Corequisite: CHEM 317L. (F)

CHEM 317L Quantitative Analysis Lab 2(0-6)
Corequisite: CHEM 317. (F)

CHEM 321 Physical Chemistry I 3(3-0)
Chemical thermodynamics, chemical dynamics, quantum chemistry, chemical structure and spectroscopy. Prerequisite: CHEM 122. Corequisites: MATH 224 and PHYS 201 or 221. (F)

CHEM 322 Physical Chemistry II 3(3-0)
Continuation of CHEM 321. Prerequisite: CHEM 122. Corequisites: MATH 224 and PHYS 201 or 221. (S)

CHEM 323 Experimental Physical Chemistry 2(0-4)
Laboratory techniques in thermodynamics, chemical equilibria, phase phenomena, kinetics, spectroscopy. Prerequisite: CHEM 321 or permission of instructor. (*)

CHEM 378 Practicum in Laboratory Instruction 1(0-2)
Laboratory preparation, instruction, safety, and methods under the guidance of an instructor. May be repeated for a maximum of two credits. Prerequisite: Approval of instructor. (F,S)

CHEM 389 Scientific Literature Review 1(1-0)
Surveys of both print and web-based chemical and biochemical literature. May be repeated twice. Prerequisite: CHEM 302. (F,S)

CHEM 401 Advanced Organic Chemistry 3(3-0)
Topics of advanced organic chemistry, including organic reactions, mechanisms, natural products, and spectroscopy. Prerequisite: CHEM 302, or permission of instructor. Corequisite: CHEM 401L. (*)

CHEM 401L Advanced Organic Chemistry Lab 1(0-3)
Laboratory course to accompany CHEM 401. Molecular structure determination by chemical and instrumental methods. Corequisite: CHEM 401. (*)

CHEM 403 Polymer Chemistry 3(3-0)
Study of synthetic polymers including synthesis, mechanisms of formation, structure of elucidation, reactivity, properties, and industrial application. Biopolymers also will be considered. Prerequisites: CHEM 302/302L. (*)

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Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acids and lipids. An introduction to enzymes and coenzymes. Prerequisite: CHEM 302, or permission of instructor. (F)

CHEM 412 Biochemistry II 3(3-0)
Continuation of CHEM 411. Intermediary metabolism of carbohydrates, lipids, and amino acids. Bioenergetics. Prerequisite: CHEM 411. Corequisite: CHEM 412L. (S)

CHEM 412L Biochemistry II Lab 2(0-6)
Prerequisite: CHEM 302. Corequisite: CHEM 412. (S)

CHEM 419 Instrumental Analysis 3(3-0)
Instrumental techniques in chemical separations, electrochemistry, atomic, and molecular spectroscopy. Prerequisites: CHEM 317 and 321, or permission of instructor. Corequisite: CHEM 419L. (S)

CHEM 419L Instrumental Analysis Lab 2(0-6)
Prerequisites: CHEM 317 and 321 or permission of instructor. Corequisite: CHEM 419L. (S)

CHEM 421 Advanced Inorganic Chemistry 3(3-0)
Structure and bonding, coordination theory, periodic relations, equilibrium, kinetics, thermodynamics, descriptive chemistry. Prerequisite: CHEM 321, or permission of instructor. (S)

CHEM 425 Environmental Chemistry 3(3-0)
Chemical process in air, water and soil. Air, water analysis and treatment, pollution. Prerequisite: CHEM 321, or permission of instructor. (*)

CHEM 431 Radiochemistry 2(2-0)
Nuclear properties, interaction and detection of radiation, application to chemistry. Prerequisite: CHEM 322, or permission of instructor. (*)

CHEM 491 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

CHEM 492 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: approval of department chair. (F,S,SS)

CHEM 493 Seminar 1(1-0)
Presentation of a formal presentation on chemical research or a current topic in the chemical literature using software-based delivery methods. May be repeated once. Prerequisite: permission of department chair. (F,S)

CHEM 495 Independent Study (1-7 VAR)
Prerequisite: permission of instructor. (*)

CHEM 498 Internship (1-6 VAR)
Work experience in the chemistry discipline under the combined supervision of the selected organization and a faculty member. Prerequisite: permission of department chair. (F,S,SS)

GRADUATE COURSES

CHEM 501 Advanced Organic Chemistry 3(3-0)
Topics of advanced organic chemistry including organic reactions, mechanisms, natural products, spectroscopy, and industrial applications. Prerequisite: CHEM 302, or permission of instructor. (*)

CHEM 501L Advanced Organic Chemistry Lab 1(0-3)
Molecular structure determination by chemical and instrumental methods. Advanced synthetic techniques. Corequisite or Prerequisite: CHEM 501. (*)

CHEM 503 Polymer Chemistry 3(3-0)
Study of synthetic polymers including synthesis, mechanisms of formation, structure elucidation, reactivity, properties, and industrial application. Biopolymers also will be considered. Prerequisite: CHEM 302, or permission of instructor. (*)

CHEM 511 Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acid and lipids. An introduction to enzymes and coenzymes. Prerequisite: one year undergraduate Organic Chemistry. (F)

CHEM 512 Biochemistry II 3(3-0)
Intermediary metabolism of carbohydrates, lipids and amino acids. Bioenergetics. Prerequisite: CHEM 411 or 511. (S)

CHEM 512L Biochemistry II Lab 2(0-6)
Prerequisite: CHEM 302. Corequisite: CHEM 512. (S)

CHEM 519 Instrumental Analysis 3(3-0)
Instrumental techniques in chemical separations, electro-chemistry, atomic, and molecular spectroscopy. Prerequisite: CHEM 317 and 321, or permission of instructor. Co-requisite: CHEM 519L. (S)

CHEM 519L Instrumental Analysis Lab 2(0-6)
Prerequisite: CHEM 317 and 321, or permission of instructor. Corequisite: CHEM 519. (S)

CHEM 521 Advanced Inorganic Chemistry 3(3-0)
Structure and bonding, coordination theory, periodic relations, equilibrium, kinetics, thermodynamics, descriptive chemistry, industrial applications. Prerequisite: CHEM 321, or permission of instructor. (S)

CHEM 525 Environmental Chemistry 3(3-0)
Chemical processes in the air, water and soil. Air, water soil analysis and treatment. Special emphasis upon the problems and effects of industrial and other pollution. Prerequisite: CHEM 321, or permission of instructor. (*)

CHEM 529 Advanced Instrumentation 2(2-0)
Emphasizes latest developments in the design and application of instrumentation for spectro-chemical analysis, electro-chemical analysis and separations. Prerequisite: graduate standing. (*)

CHEM 531 Radiochemistry 2(2-0)
Nuclear properties, interaction and detection of radiation, kinetics of decay, application of chemistry in industry. Prerequisite: CHEM 322, or permission of instructor. (*)

CHEM 550 Industrial Chemistry 2(2-0)
The economic importance and special characteristics of the chemical industry. Feedstocks, intermediates and products of the chemical industry including thermoplastics, thermosetting plastics, paints and coatings, elastomers, fibers, surfactants, pharmaceuticals, agricultural chemicals, paper, acids, etc. Market demands, price and cost factors, scale, research, process chemistry and process control, product development. Case studies illustrating above topics. (*)

CHEM 578 Practicum in Laboratory Instruction 1(0-2)
Laboratory preparation, instruction and methods under the guidance and supervision of an instructor. May be repeated for a maximum of four credits. Prerequisites: graduate standing or approval of department chair. (S/U grades) (F,S,SS)

CHEM 591 Special Topics (1-4 VAR)
Prerequisite: permission of instructor. (*)

CHEM 595 Independent Study (1-4 VAR) (*)

CHEM 598 Graduate Internship (1-4 VAR)
Volunteer or paid work experience under the combined supervision of the selected organization and a faculty member. Prerequisite: graduate standing. (S/U grades). (F,S,SS)

CHEM 599 Thesis Research (1-6 VAR)
(IP and S/U grading). (*)

CHICANO STUDIES (CS)

UNDERGRADUATE COURSES

CS 101 Introduction to Chicano Studies 3(3-0)
Overview of the historical, political and socio-cultural experience of the Chicano. (F,S,SS)

CS 136 (HIST 136) The Southwest United States 3(3-0)
This course traces the culture and historical development of the southwestern United States, including cultural contributions of the American Indian and Hispanic peoples. (*)

CS 220 (ENG 220) Survey of Chicano Literature 3(3-0)
Survey of outstanding contemporary Chicano works. Literature deals with Chicano themes, including analysis of folklore and myth. (S)

CS 230 (SW 230) Chicano: Social and Psychological Study 3(3-0)
Social and psychological forces faced in the Chicano community. (F)

CS 240 Chicana Writers (WS 240) 3(3-0)
Survey of Chicana writers from the early 1900's to the present. Along with the literature, aspects of history, sociology and politics will be incorporated. (*)

CS 246 (HIST 246) History of Mexico 3(3-0)
This course surveys the major political, economic, social and cultural developments of Mexico from pre-Columbian times to the present. (*)

CS 291 Special Topics (1-3 VAR)
Topics in Chicano studies, identified by student/faculty interest. Prior work in Chicano studies desirable. (*)

CS 303 Chicano Labor History in the United States 3(3-0)
Chicano experience in the American labor market from 1848 to present. (*)

CS 306 (WS 306) La Chicana 3(3-0)
A social cultural and historical overview of the Chicana experience and contributions. (F,S)

CS 325 (SW 325) Health in the Chicano Community 3(3-0)
Health care traditions and current health care systems in the barrio. (S)

CS 401 (WS 401) Third World Feminisms 3(3-0)
This course focuses on Third World women's challenging views of global feminism and feminist representations of other women. (*)

CS 489 (HIST 489) Borderlands 3(3-0)
History of the Mexican cession to the U.S. from its Indian and Hispanic origins to the present. Prerequisite: CS/HIST 136 or HIST 211 or HIST 201 or HIST 202, or permission of instructor. (*)

CS 491 Special Topics (1-3 VAR)
Topics in Chicano Studies, identified by student/faculty interest. Prior work in Chicano Studies desirable. (*)

CS 493 Seminar (1-3 VAR)
Various problems within the realm of Chicano studies; in-depth, integrated approach. Prerequisite: CS 101. (S)

CS 495 Independent Study (1-3 VAR)
Special topics dealing with the Chicano and society. Prerequisite: CS 101. (F,S,SS)

CIVIL ENGINEERING TECHNOLOGY (CET)

UNDERGRADUATE COURSES

CET 102 Surveying I 3(0-6)
Beginning course in plane surveying; covers proper chaining techniques, care and use of engineering levels, differential leveling, traversing, and construction surveying. (F)

CET 103 Surveying II 3(0-6)
Introduction to land, topographic, and construction surveying. Prerequisite: CET 102, or permission of instructor. Corequisite: CET 116. (S)

CET 115 Civil Drafting I 3(0-6)
An introduction to basic drafting, AutoCAD and Structural Detail drafting. Corequisite: CET 102. (F)

CET 116 Civil Drafting II 3(0-6)
An introduction to maps, traverses, contours, plans and profiles, cut and fills. An introduction to architectural plans, elevations and section. Prerequisite: CET 115. Corequisite: CET 103. (S)

CET 203 Dynamics 1(1-0)
The application of kinematics to rigid bodies in motion. Prerequisite: MATH 132. Corequisite: ET 202. (F)

CET 207 Construction Materials and Methods 3(3-0)
Properties, uses and methods of assembly of building materials as they apply to the construction industry. (F)

CET 208 Concrete and Asphalt Materials 3(2-2)
Study of Portland cement concrete and bituminous pavements. Manufacturing, mix design, placing and finishing of these materials. The laboratory includes ASTM testing of these materials. (S)

CET 215 Advanced Surveying I 3(0-6)
Develops professional skills in surveying, electronic traversing, state plane coordinates, and global positioning. Prerequisites: CET 103 and MATH 132. (F)

CET 216 Advanced Surveying II 3(0-6)
Highway and route surveys, horizontal and vertical curves, grades, slope staking and earthwork. Prerequisites: CET 103 and MATH 132. (S)

CET 303 Construction Management 3(3-0)
Job specifications, contractor, organization, bonding, contracts, insurance and labor relations. Prerequisite: junior standing or permission of instructor. (S)

CET 304 Construction Cost Estimating I 3(3-0)
Estimating related to building construction industry. Quantity take-off, labor and material costs, records and assembling a general contractor's bid. Prerequisite: CET 207 or permission of instructor. (F)

CET 305 Construction Cost Estimating II 3(3-0)
Estimating relating to heavy and highway construction. Covers heavy equipment selection, use and production rates. Prerequisite: junior standing or permission of instructor. (S)

CET 313 Architectural Drafting I 3(0-6)
Preparation of a complete set of working drawings for a modern residential building. Prerequisite: CET 116. (F)

CET 314 Architectural Drafting II 3(0-6)
Introduction to architectural design, design sketches and working drawings for a light commercial building. Prerequisite: CET 313. (S)

CET 315 Soil Mechanics Technology 3(2-2)
Basic principles of soil mechanics and foundation design as they apply to design and construction. ATSM field tests will be done in the laboratory. Prerequisite: ET 206. (S)

CET 401 Land Surveying 3(3-0)
Boundary control, property descriptions, deeds, subdivisions, emphasizing the legal aspects of land law and surveying. Prerequisite: CET 103 or permission of instructor. (F)

CET 404 Structural Steel Design 3(3-0)
Structural steel design of beams, columns, girders and trusses to AISC standards. Prerequisite: ET 206. (S)

CET 405 Reinforced Concrete Design 3(3-0)
Design of reinforced concrete beams, columns, girders and floor systems to conform to current ACI code. Prerequisite: ET 206. (F)

CET 411 Hydraulics 3(2-2)
Study of non-compressible fluids including the flow of water in pipes and open channels. Laboratory involves measuring static pressure, head losses, and flow rates. Prerequisite: ET 202. (F)

CET 412 Hydrology 3 (3-0)
Hydrologic cycle including precipitation, streamflow, ground-water runoff and the preparation of hydro graphs and frequency analysis. Prerequisite: junior standing. (S)

CET 414 Bridge Design 3(3-0)
Design of bridge slabs, beams, abutments, wingwalls, piers, and footings. Prerequisite: senior status. (*)

CET 415 Water and Sewer System Design 3(3-0)
Fundamental principles of water supply and sewage design. Prerequisite: senior status. (*)

CET 455 Senior Project Seminar 1(1-0)
Students formulate a proposal for their senior project and make written and oral presentations of the proposal. Speakers from industry present real-world examples. Prerequisites: senior standing in CET. (S/U grades) (F)

CET 456 Senior Project 3(1-4)
Practical realistic projects relating to CET discipline are selected for design, analysis, and execution. Students prepare reports and make oral presentations. Prerequisite: CET 455. (S)

CET 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

CET 495 Independent Study (1-3 VAR)
Directed study for students interested in specific areas of CET. Prerequisite: junior standing in CET and permission of instructor. (F,S)

CET 496 Cooperative Education Placement (1-4 VAR)
Industrial cooperative education work experience under the direction of a field supervisor and faculty member. Prerequisite: permission of instructor. (F,S,SS)

COMPUTER ENGINEERING TECHNOLOGY (CENT)

UNDERGRADUATE COURSES

CENT 226 Introduction to Programming 2(1-2)
An introductory course in programming using the Basic language. Prerequisite: ET 101. (F)

CENT 255 Introduction to Microprocessors 4(3-2)
Analysis of microcomputer systems including both hardware and software considerations, with emphasis on machine language programming. Includes micro-computer design projects. Prerequisite: EET 254. (F)

CENT 354 Computer Architecture Design 4(3-2)
Computer architecture, with emphasis on operation and design. Students must complete an extensive laboratory project which requires the design, instruction and testing of an operational computer. Prerequisite: CENT 255. (S)

CENT 355 Microcomputer Assembly Language 4(3-2)
Assembly language for advanced microcomputer systems. An in depth coverage of the Intel 8086 assembler language and associated linkers and debuggers. Introduction to interface programming. Prerequisite: CIS 121, CENT 255. (S)

CENT 357 Digital Communications Concepts 4(3-2)
Data communications and telecommunications concepts for computers and terminals, including data transmission, media, software, protocols, switching, coding, and simple networks. Prerequisite: CENT 255, MATH 124 or MATH 132. (S)

CENT 358 Computer Networks 3(2-2)
Computer communication techniques and computer networks including topics such as topology, protocols, routing and reliability analysis. Prerequisites: CENT 255. (F)

CENT 411 Windows Software Development 3(3-0)
Microsoft Windows program design and testing, using C language. Resource editors and project manager utilities will be used. Prerequisite: CIS 253. (F)

COMPUTER INFORMATION SYSTEMS (CIS)

UNDERGRADUATE COURSES

CIS 101 Computers and You 2(1-2)
A general education computer skills course covering Windows, word processing, and spread-sheets. This is a competency-based course. (F,S,SS)

CIS 110 PC Productivity and the Internet 3(2-2)
A general education computer skills course. Covers the Internet, Netscape, E-Mail, Windows, word processing and spreadsheets. (F, S, SS)

CIS 111 Introduction to Programming & Design 4(3-2)
Introductory course in problem solving, computer program design and coding. Examines object-oriented and structured design of computer programs using Visual Basic. Prerequisites: CIS 110 or fulfillment of USC computer literacy requirement. (F,S)

CIS 121 Introduction to C++ Programming 4 (3-2)
A comprehensive study of the C++ programming language emphasizing modern software design and implementation. Prerequisite: CIS 111 or other college level programming course. (F,S)

CIS 150 Computer Information Systems 3(3-0)
Survey of Computer Information Systems includes data representation, operating systems, networks, the Internet and information system design. Discussion of careers in CIS. Prerequisite: CIS 101 or 110. (F,S)

CIS 215 Unix Operating System 3(3-0)
Explore UNIX features, covering command language, file system, mail, and editing. Shell language tools include pipes, filters and I/O redirection. Corequisite: CIS 121 or equivalent. (F,S)

CIS 231 COBOL Programming 4(4-0)
Introductory and advanced ANSI COBOL programming principles for business applications, including general program development, debugging, and file access methods. Prerequisite: CIS 121. (S)

CIS 240 Systems Analysis and Design 3(3-0)
Practical methods for analyzing business problems and designing appropriate computer solutions. Concepts include modern system modeling techniques, interview methods, and computer assisted software engineering practice. Prerequisites: CIS 121. (F)

CIS 253 Advanced C++ Programming 3(3-0)
An advanced course in C++ programming extending the concepts of CIS-121. Object-oriented programming concepts using the C++ language. Data structures are used. Prerequisite: CIS 121. (F, S)

CIS 290 Special Projects (1-5 VAR)
Individual projects designed to extend student knowledge beyond offerings in the current curriculum. Examples include program, database, Web site or network research or development. Prerequisite: sophomore standing and permission of instructor. (F,S,SS)

CIS 291 Special Topics (1-5 VAR)
Study of new and emerging topics and technologies in the computing field. May be repeated for credit. Prerequisite: sophomore standing.

CIS 296 Cooperative Education Placement (1-5 VAR)
Industrial cooperative education work experience under the direction of a field supervisor and faculty member. Prerequisite: freshman or sophomore standing. (F,S,SS)

CIS 311 Introduction to Web Development 3(3-0)
An introduction to web site design and implementation using HTML, JavaScript, XML and other state of the art web development tools and languages. Prerequisite: CIS 121. (F,S)

CIS 316 Operating Systems Design 3(3-0)
Theory and design of supervisors, concepts of job tasks and data management, scheduling, queuing, multi-programming site management. Prerequisites: junior standing. (S)

CIS 350 Data Base Systems 3(3-0)
Design, implementation and use of data base management systems; comparison of available software packages; concepts of query languages and security considerations. Laboratory assignments utilize a relational data base system. Prerequisite: CIS 121 and CIS 240. (F)

CIS 357 JAVA Programming 3(3-0)
JAVA language, syntax and semantics. Study applications for stand-alone programs and applets designed for WWW presentations. Object-oriented programming. Prerequisite: CIS 253. (S)

CIS 385 PC Architecture 3(3-0)
In depth study of personal computer hardware, peripherals, and interfaces. Course examines processors, disk drives, buses, video cards, memory and diagnostic software. Prerequisite: CIS 150 and Junior standing. (F)

CIS 389 Network Concepts 3(3-0)
Fundamental hardware, software, and data communication concepts necessary to understand computer networks. Prerequisite: CIS 385. (F/S)

CIS 401 Network Systems Administration 3(3-0)
Concepts necessary to function as a network system supervisor. Topics such as login scripts, security, directory structure, print servers, and network utilities. Prerequisites: CIS 389. (F)

CIS 403 Advanced Visual Programming 3(3-0)
Includes advanced Visual Basic, coding techniques and application design using advanced ActiveX controls and data objects, class and ActiveX object creation. Prerequisites: CIS 111 and CIS 350. (*)

CIS 411 Internet Server-Side Programming 4(4-0)
Server programming fundamentals. Includes data base accessing, ActiveX data and program objects, Visual Basic Script, cookies, and dynamic web page construction from the server side. Prerequisite: CIS 311. (S)

CIS 420 Knowledge Based Systems 3(3-0)
Expert systems and their applications. Knowledge based problem solving including heuristic classification, knowledge engineering, rule based expert systems, analogy, symbolic processing, and causal models. Prerequisite: CIS 240 or permission of instructor.

CIS 432 Senior Professional Project 6(3-6)
Student Teams design and implement database, network, web and other computer-based projects in the local community. Modern analysis, design and modeling techniques are emphasized. Prerequisite: CIS 240, CIS 350 and CIS 389. (S)

CIS 450 Advanced Database Structures 3(3-0)
Investigation and study of data modeling, system development and data technology, including database engineering and design, hardware, student projects, administration and selection. Prerequisite: CIS 350, or permission of instructor. (S)

CIS 460 Enterprise Networking 3(3-0)
Examines enterprise-wide multi server networks. Systems administration and operating systems software appropriate to world-wide networks consisting of interconnected local, metropolitan, and wide area networks. Prerequisite: CIS 401. (S)

CIS 490 Special Projects (1-5 VAR)
Individual projects designed to extend student knowledge beyond offerings in the current curriculum. Examples include program, database, Web site or network research or development. Prerequisite: permission of instructor. (F,S,SS)

CIS 491 Special Topics (1-5 VAR)
Study of new and emerging topics and technologies in the computing field. May be repeated for credit. Prerequisite: junior or senior standing. (F,S,SS)

CIS 493 Seminar 1(1-0)
Seminar concerning appropriate career topics in computer information systems. Speakers may include guests, faculty or students. Student outcomes will be assessed. Required of majors. Prerequisite: senior standing. (S/U grading) (F)

CIS 496 Cooperative Education Placement (1-5 VAR)
Industrial cooperative education work experience under the direction of a field supervisor and faculty member. Prerequisite: junior or senior standing. (F,S,SS)

CIS 520 Knowledge Based Systems 3(3-0)
Expert systems and their applications. Knowledge based problem solving including heuristic classification, knowledge engineering, rule based expert systems, analogy, symbolic processing and causal models. Prerequisite: CIS 240, MGMT 365, MGMT 565 or permission of instructor. (F)

CIS 550 Data Base Systems 3(3-0)
Design implementation and use of database management systems. Comparison of available software packages. Discussion of query languages, security, and recovery. Prerequisite: CIS 240 or MGMT 365 or MGMT 565 or permission of instructor. (F)

CIS 591 Special Topics (1-5 VAR)
Study of new and emerging topics and technologies in the computing field. May be repeated for credit. Prerequisite: graduate student standing and instructor permission. (F,S,SS)

ECONOMICS (ECON)

UNDERGRADUATE COURSES

ECON 102 Economics and Society 3(3-0)
For non-business majors, this course covers the essential topics needed to understand the modern economy. Emphasizes the economics perspective to current political and social problems. Not open to pre-business or business majors. (*)

ECON 201 Principles of Macroeconomics 3(3-0)
Applications oriented approach to understanding the economy including monetary policy, deficits and surpluses, international issues; fundamental differences between liberal and conservative economic policies. Prerequisite: MATH 109 or MATH 121 or permission of instructor for non-business majors. (F,S)

ECON 202 Principles of Microeconomics 3(3-0)
Illustrates how firms make price, wage and profit maximizing decisions. Other topics include market performance, market failure, environmental issues and government intervention. Prerequisite: MATH 121 or permission of instructor for non-business majors. (F,S)

ECON 301 Intermediate Macroeconomics 3(3-0)
In depth study of the relation between monetary policy, interest rates and financial markets. Policies intended to promote economic growth are also evaluated. Prerequisite: ECON 201 and 202. (*)

ECON 302 Intermediate Microeconomics 3(3-0)
Emphasis on consumer demand, demand estimation, industry competition and the pricing practices of firms. Prerequisite: ECON 201 and 202. (*)

ECON 310 Money and Banking 3(3-0)
Study of monetary economics and its application in macroeconomic theory. Prerequisite: ECON 201 and 202. (*)

ECON 320 International Economics 3(3-0)
International trade and finance theory, current and past trade issues, history and impact of international economic organizations and agreements, international payments system, and international debt. Prerequisites: ECON 201 and 202. (*)

ECON 330 Public Finance 3(3-0)
Principles and issues of government revenue and expenditure policies. Prerequisite: ECON 201 and 202. (*)

ECON 402 Economics of Labor 3(3-0)
The study of labor supply and demand, impact of unions, wage determinators, distribution of income and productivity. Prerequisite: ECON 201 and 202. (*)

ECON 410 Managerial Economics 3(3-0)
Practical application of micro-economic principles to managerial decision making. Prerequisites: ECON 201 and 202 and senior standing. (*)

ECON 420 Regional Economic Analysis 3(3-0)
Hands-on application of regional economic concepts to projects requested by local firms and institutions. Develops skills in accessing a community's trade area, trade relations between communities and sources of local employment growth. Prerequisites: ECON 201 and 202. (*)

ECON 490 Special Projects (1-6 VAR) (*)

ECON 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

ECON 495 Independent Study (1-3 VAR)
Prerequisites: senior standing in School of Business and permission of department chair. (*)

ECON 498 Internship (1-6 VAR)
Supervised field work in selected business, social, and governmental organizations; supplemented by written reports. Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (S/U grades) (*)

GRADUATE COURSES

ECON 510 Economics for Managers 3(3-0)
Provides the macro- and micro-economic understanding managers will use throughout their careers. Topics include demand estimation, pricing, decisions under uncertainty, domestic monetary policy, international economics. Prerequisite: graduate standing. (*)

ECON 591 Special Topics 3(3-0)
Prerequisite: graduate standing. (*)

ECON 592 Research (1-6 VAR)
The student will work under the close supervision of graduate faculty member in basic or applied research resulting in a report of high academic quality (IP and S/U grading). (*)

ECON 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: graduate standing. (*)

ECON 598 Internship 3(3-0)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: Graduate standing. (S/U grading) (*)

EDUCATION (ED)

UNDERGRADUATE COURSES

ED 102 Teaching as a Career 1(1-1)
Orientation to teaching and teacher education. Class sessions and classroom observation required. Not required for teacher certification. (F,S)

ED 202 Foundation of Education 3(3-0)
Historical, philosophical and sociological dimensions of education including legal and financial challenges associated with the institution of education. (F,S,SS)

ED 210 Human Growth and Development for Educators 3(3-0)
Physical, mental, social and emotional growth of the individual; provides teachers with needed perspectives on elementary and secondary school students . (F,S,SS)

ED 280 Educational Media and Technology 3(3-0)
Prepares teachers to use technology for instruction, assessment, management, and research. (F,S,SS)

ED 301 Frameworks of Teaching 3(3-0)
Includes approaches to designing learner-centered classroom communities through applications of standards-based instruction, effective planning and assessment, and classroom management; 30 hours of field experience. Prerequisites: completion of 45 credit hours and 2.5 cumulative GPA. (F,S)

ED 325 Early Field Experience with the Atypical Learner (1-3 VAR)
Development and implementation of principles in teaching atypical learners in a tutorial situation. Prerequisite: admission to Teacher Education Program. (*)

ED 380 Integrated Methods in Elementary 3(3-0)
Prepares elementary teachers to integrate the expressive arts and physical education into the elementary curriculum; 30 hours of field experience. Prerequisites: acceptance into the Teacher Education Program, ART 100 and MUS 118. (F,S)

ED 400 Workshop (1-3 VAR)
Designed for special activity-oriented experiences to be conducted in short sessions. Each workshop has a subtitle and no subtitle may be repeated for credit. Prerequisite: acceptance to the Teacher Education Program or permission of instructor. (*)

ED 412 Teaching Diverse Learners 3(3-0)
Focuses on legislation for special education, nature of exceptionalities, and meeting the needs of K-12 students, including second language learners; 30 hours field experiences. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 413 Teaching Social Studies 3(3-0)
Methods of teaching social studies in the elementary school. Part of elementary field experience block. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 414 Teaching Elementary Science and Health 2(1.5-1.5)
Methods of teaching health and science in the elementary school. Part of elementary field experience block. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 417 Teaching Mathematics in Elementary School 2(1.5-1.5)
The scope and sequence of elementary school mathematics are examined. Instructional methods are considered in terms of both the content and the cognitive developmental rates and other individual differences of children. Prerequisites: MATH 361 and acceptance into the Teacher Education Program. (F,S)

ED 420 Microcomputer Applications in Education 2(1-2)
Current microcomputer application in the classroom and principles of educational software. Prerequisite: acceptance into the Teacher Education Program. (*)

ED 435 Classroom Management 3(2-3)
Includes general teaching methods and strategies, learning theories applied to teaching discipline, curriculum educational measurement and evaluation, school organization and school law applicable to classroom teachers. Field experience required. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 440 Teaching Secondary Science (Bio/Chem) I 3(2-2)
Familiarization with the Colorado Science Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. (*30 hrs/semester field experience required.) Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 441 Teaching Secondary Science (Phy/E Sci) II 3(2-2)
Familiarization with the Colorado Science Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. (*30 hrs/semester field experience required.) Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 442 Teaching Social Studies in Middle School 3(2-2)
Familiarization with the Colorado Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program. (*30 hrs/semester field experience required.) (F)

ED 443 Teaching Social Studies in High School 3(2-2)
Familiarization with the Colorado Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program. (*30 hrs/semester field experience required.) (S)

ED 444 Teaching Secondary Science 4(3-2)
Focuses on teaching methods, materials, and assessment strategies necessary to prepare students to teach in secondary standards-based science classrooms; 60 hours of field experience. Prerequisite: Acceptance into the Teacher Education Program. (F)

ED 445 Applied Educational Assessment & Instruction K-12 2(2-0)
Familiarization with concepts and issues in K-12 educational assessment including planning, constructing, analyzing and applying assessment principles in a standards based curriculum. Prerequisite: acceptance into the Teacher Education Program. (F,S,SS)

ED 446 Teaching K-12 Art 4(3-2)
Focuses on art curriculum, methods, and assessment to prepare art educators to successfully teach in K-12 standards-based art classrooms; 60 hours of field experience. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 447 Teaching English in Secondary Schools 4(3-2)
Familiarizes students with Colorado foreign language standards, standards-based lesson and unit planning, and authentic assessment; 60 hours of field experiences. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 448 Teaching Foreign Language (K-12) 4(3-2)
Familiarizes students with Colorado foreign language standards, standards-based lesson and unit planning, and authentic assessment; 60 hours of field experiences. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 449 Teaching Choral Music (K-12) 3(2-2)
Familiarization with the Colorado Music Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program, MUS 144, 145, 186, 241, 242, and 246. (F,S) (*30 hrs/semester field experience required)

ED 450 Teaching Instrumental Music (K-12) 3(2-2)
Familiarization with the Colorado Music Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program, MUS 144, 145, 186, 241, 242, and 246. (*30 hrs/semester field experience required) (F,S)

ED 451 Teaching Secondary Social Studies 4(3-2)
Familiarizes students with the Colorado content standards, including standards-based lesson and unit planning strategies and authentic assessment; 30 hours of field experiences. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 461 Atypical Students in the Secondary School 3(2-2)
Individual differences as they affect the learning process. Instructional alternatives for meeting individual needs including handicapped and gifted. Emphasis on main streamed students. Field experience required. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 485 Capstone Seminar in Education 2(2-0)
Explores substantive issues facing teacher, including meeting the needs of at-risk students; creating inclusive, equitable learning communities, and methods of effective inquiry in education. Prerequisite: acceptance into the Teacher Education Program and enrollment in student teaching. (F,S)

ED 487 Student Teaching Elementary (6, 12 VAR)
Elementary level. Application must be submitted on or before date in the *Teacher Education Handbook* prior to the semester in which student teaching will commence. Prerequisite: approved application for student teaching. (F,S)

ED 488 Student Teaching Secondary (6, 12 VAR)
Secondary level. Application must be submitted on or before date in the *Teacher Education Handbook* prior to the semester in which student teaching will commence Prerequisite: approved application for student teaching. (F,S)

ED 489 Student Teaching K-12 (6, 12 VAR)
K-12 level. Application must be submitted on or before date in the *Teacher Education Handbook* prior to the semester in which student teaching will commence. Prerequisite: approved application for student teaching. (F,S)

ED 491 Special Topics (1-3 VAR) (*)

ED 494 Field Experience (1,3,5,10 VAR)
Field experience in an educational setting. Not applicable to teacher certification (S/U grades). (*)

ED 495 Independent Study (1-3 VAR) (*)

GRADUATE COURSES

ED 500 Workshop (1-3 VAR)
Designed for activity-oriented experiences to be conducted in short summer sessions. Each workshop has a subtitle and no subtitle may be repeated for credit. Prerequisite: graduate standing. (*)

ED 505 Education Across Cultures 2(2-0)
Analysis of multiculturalism and how the educational process can be adapted to children of diverse cultural backgrounds. Prerequisite: graduate standing. (*)

ED 512 Teaching the Special Child 3(2.5-1.5)
Includes history, philosophy and legislation for special education, the nature of and definitions for exceptionalities and child abuse; focus on meeting the instructional and social needs of special children in elementary classrooms. Special project required. Prerequisites: graduate standing plus PSYCH 351 or ED 555. (F,S)

ED 520 Microcomputer Applications in Education 2(1-2)
Current microcomputer applications in the classroom and principles of evaluating education software. Prerequisite: graduate standing. (F)

ED 522 Issues in Education 2(2-0)
Contemporary problems in education, their historical development and philosophical implications. Prerequisite: graduate standing. (*)

ED 524 Advanced Techniques of Teaching Elementary Social Studies 2(2-0)
Analysis of techniques for conceptual approaches to teaching socialization skills, critical thinking and inquiry skills; and helping children develop healthy attitudes and values. Prerequisite: graduate standing. (*)

ED 525 Advanced Techniques of Teaching Elementary Science and Health 2(2-0)
Emphasis on the newest concepts, techniques and materials for teaching elementary school science and health. Prerequisite: graduate standing. (*)

ED 526 School Health Curriculum 2(2-0)
Training (by grade level) in the use of by "Growing Healthy" –the Primary Grades Health Curriculum Project and the School Health Curriculum Project. This is lateral spread training only, by agreement with the Rocky Mountain Regional Training Center. Prerequisite: graduate standing. (*)

ED 530 Instructional Programming 2(2-0)
Principles of curriculum design, educational goals, instructional objectives, and developing long- middle- and short-range plans. For elementary and secondary teachers. Prerequisite: graduate standing. (*)

ED 542 Contemporary Techniques of Classroom Management 2(2-0)
What research and professional practice say about organizing students, space, information, and resources; motivating, goal setting, communicating, and problem solving with student; and handling disruption and behavior problems. (*)

ED 545 Applied Educational Assessment & Instruction K-12 2(2-0)
Familiarization with concepts and issues in K-12 educational assessment including planning, constructing, analyzing and applying assessment principles in a standards based curriculum. Prerequisite: admission to teacher education program. (F,S,SS)

ED 555 Foundations of Learning Disorders 3(3-0)
Exceptionalities: emphasis on high-incidence handicaps. Includes recent legislation and identification, referral, staffing and placement procedures. Major intervention strategies examined. Prerequisite: graduate standing. (*)

ED 560 Professional Development in Curriculum and Instruction (1-3 VAR)
Stresses skill-building in classroom instruction, including curriculum development and student assessment. Current innovations in public education are also addressed. Prerequisite: graduate standing. (*)

ED 561 Atypical Students in the Secondary School 3(2-2)
Individual differences as they affect the learning process. Instructional alternatives for meeting individual needs including handicapped and gifted. Emphasis on mainstreamed students. Graduate project required. Prerequisites: graduate standing plus PSYCH 351 or ED 555. (F,S)

ED 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

ED 592 Research (1-3 VAR)
Prerequisites: graduate standing and permission of graduate adviser. (*)

ED 593 Seminar 3(3-0)
Prerequisite: graduate standing. (*)

ED 595 Independent Study (1-2 VAR)
Prerequisite: graduate standing and permission of graduate adviser. (*)

ED 599 Thesis Research (1-6 VAR) (*)

ELECTRICAL ENGINEERING (EE)

UNDERGRADUATE COURSES

EE 100 Electrical Engineering Fundamentals 3(3-0)
Electrical engineering fundamentals and problem solving using design and visualization tools. (F)

EE 102 Digital Circuit Logic 4(3-2)
Boolean algebra, Karnaugh maps, multiplexers, decoders, ROMs, PLAs, flip-flops, counters, sequential networks, state tables. (S)

EE 201 Circuit Theory 3(2-2)
Basic circuit analysis techniques and applications to engineering design problems. Corequisite: MATH 224, PHYS 222. (F)

EE 202 Circuit Theory Applications 4(3-3)
Step and Sinusoidal Response of networks; modeling of active devices. Prerequisite: EE 201. (S)

EE 251 Introduction to Microprocessors 4(3-3)
Microprocessor organization assembly language, I/O techniques, real time interfaces, applications, hardware/software. Prerequisite: EE 102. (S)

ELECTRONICS ENGINEERING TECHNOLOGY (EET)

UNDERGRADUATE COURSES

EET 121 DC Circuits 4(3-2)
DC circuits including voltage, current, resistance, energy, power, mesh and nodal analysis, and network theorems. Corequisite: MATH 131. (F)

EET 122 AC Circuits 4(3-2)
AC circuit analysis, sine waves, phasors, impedance, mesh and nodal analysis, network theorems, frequency response and resonance. Prerequisite: EET 121. Corequisite: MATH 132. (S)

EET 211 Electronics I 4(3-2)
Principles and basic applications of semiconductor diodes and transistors. Unfiltered and filtered rectifier circuits. Clippers, clampers, and other diode circuits. Detailed dc and ac analysis of transistor circuits, including transistor dc biasing, the use of transistor ac models and equivalent circuits, and the ac analysis of small signal transistor amplifiers. Corequisites: EET 122 and MATH 132. (F)

EET 212 Electronics II 4(3-2)
Frequency response of BJT and FET amplifier circuits. Multi-stage transistor amplifier analysis and design considerations. Differential and operational amplifiers, and their basic circuit applications. Negative feedback principles and circuit analysis. LF and HF oscillator circuits. Voltage regulators and regulated power supplies. Prerequisites: EET 211, Corequisite: MATH 231. (S)

EET 250 Electrical Fundamentals 4(3-2)
DC and AC circuit analysis, circuit theorems, power, resonance, filters, transformers, polyphase circuits, and transient-analysis. (NON-MAJORS). Corequisite: MATH 132. (F)

EET 254 Introduction to Digital Systems 4(3-2)
Digital techniques, including binary codes, Boolean algebra, gates, flip-flops, counters, shift registers and arithmetic operations. Prerequisite: EET 121 or 250, or permission of instructor. Corequisite: EET 211. (S)

EET 351 Electronics III 4 (3-2)
Theory and applications of operational amplifiers and linear circuits, including non-inverting and inverting voltage amplifiers, I-V and V-I converters, the effects of negative feedback on input and output impedance, DC offset considerations, high frequency limitations of op amps, differential and instrumentation amplifiers, differentiators and integrators, and other selected topics. Prerequisite: EET 212. (F)

EET 356 Electronics IV 4(3-2)
Continuation of Electronics III. Theory and applications of operational amplifiers and analog circuits, including voltage comparators, oscillators and waveform generators, active filters, rectifiers and voltage regulators, D-A and A-D conversion, phase locked loops, and other selected topics. Prerequisite: EET 351. (S)

EET 412 Communication Systems 4(3-2)
Basic principles of electronic communications. Time-domain and frequency-domain representations of signals. Amplitude modulation, Single Sideband, Frequency Modulation, and Phase Modulation communication systems and circuit analysis. Principles of fiber optic communications. Prerequisites: EET 351, MATH 232. (F)

EET 455 Senior Project Seminar 1(1-0)
Students formulate a proposal for their senior project and make written and oral presentations of the proposal. Prerequisite: senior standing in EET. (F)

EET 456 Senior Project 3(1-4)
Practical realistic projects relating to EET discipline are selected for design, analysis, and execution. Students prepare reports and make oral presentations. Prerequisite: EET 455. (S)

EET 491 Special Topics (1-3 VAR)
Topics in electronics not now included in other courses.
Prerequisite: permission of department chair. (*)

EET 493 Seminar (1-3 VAR)
Participation by electronics students and presentation of recent developments in the electronics field. Prerequisite: qualified junior or senior students. (*)

EET 495 Independent Study (1-3 VAR)
Prerequisite: permission of department chair. (F,S,SS)

EET 496 Cooperative Education Placement (1-4 VAR)
Industrial cooperative education work experience under direction of field supervisor and faculty member. Prerequisite: permission of instructor. (F,S,SS)

ENGINEERING (EN)

UNDERGRADUATE COURSES

EN 101 Problem Solving for Engineers 3(2-2)
Writing computer programs to solve real-world problems in engineering and science. Prerequisite: equivalent of 2 years of high school algebra. (S)

EN 103 Introduction to Engineering 2(2-0)
Introduction to engineering curriculum and careers. Problem solving and creativity. Spreadsheets, word processing and other computer skills. (F)

EN 105 FORTRAN 3(3-0)
Introducing FORTRAN-77 programming with algebraic problem solving for science, engineering and technology majors. Covering computer systems, language specifications, function, arrays, character strings, subroutines, files. Corequisites: MATH 121, 124 or 131. (F,S)

EN 107 Engineering Graphics 2(0-4)
Introduction to the preparation of engineering drawings using freehand sketching and computer graphics software. (S)

EN 211 Engineering Mechanics I 3(3-0)
Introduction to the relationship between forces and moments acting on an object that is in equilibrium (statics). Prerequisite: PHYS 221, or permission of instructor. (F)

EN 212 Engineering Mechanics II 3(3-0)
Introduction to the relationship between forces and moments acting on rigid objects and the motion of objects (dynamics). Prerequisite: EN 211. (S)

EN 231 Circuit Analysis I 4(4-0)
Circuit concepts, conventions and network equations. Initial conditions and classical methods of obtaining transient and steady-state solutions. Prerequisite: MATH 224. Corequisites: EN 231L and PHYS 222. (F)

EN 231L Circuit Analysis I Lab 1(0-2)
Observation and analysis of electrical circuits involving resistance, inductance and capacitance. Corequisite: EN 231. (F)

EN 232 Circuit Analysis II 4(4-0)
Continuation of EN 231 including waveform synthesis, network theorems, Fourier series, pole-zero diagrams and two-port network theory. Introduction to Laplace transforms. Prerequisite: EN 231. (*)

EN 270 Material and Energy Balances 3(3-0)
Material and energy balances with or without chemical reactions in chemical engineering applications. Prerequisites: CHEM 121, PHYS 221, and MATH 126. (*)

EN 291 Special Topics (1-5 VAR)
Selected topics in engineering. (*)

EN 296 Cooperative Education Placement (1-5 VAR)
Work experience under direction of a field supervisor and a faculty member. Prerequisite: freshman or sophomore standing. (F,S)

EN 301 Fluid Mechanics 4(4-0)
Introduction to the relationship between the forces applied to a fluid, the motion of the fluid, and the mechanical properties of the fluid. Prerequisite: EN 212. (*)

EN 312 Materials Science 2(2-0)
The nature of engineering materials, emphasizing the relationship between macroscopic and atomic and microscopic structures. Prerequisites: PHYS 332 and CHEM 121. Corequisite: EN 312L. (*)

EN 312L Materials Science Lab 1(0-2)
Experimental studies of material properties, characteristics and micro structures. Effects of plastic deformation and heat treatment. Corequisite: EN 312. (*)

EN 315 Introduction to Industrial and Systems Engineering 3(3-0)
Engineering viewpoints of the principles of organization for production and the operations applicable to accomplishing organizational responsibilities. Prerequisite: EN 103. (F)

EN 321 Thermodynamics I 3(3-0)
Introduction to energy equations and flows, entropy, kinetic theory and statistical mechanics. Prerequisite: PHYS 221. (F)

EN 322 Thermodynamics II 4(4-0)
Application of laws of thermodynamics to chemically reacting thermodynamic systems, vapor cycles, gas engine cycles, propulsion systems, refrigeration and air-water vapor mixtures. Prerequisite: EN 321. (*)

EN 324 Mechanics of Materials 3(3-0)
Stress-strain relationships, fundamentals of elasticity, torsional loading, flexural loading, combined stresses. Prerequisite: EN 211. Corequisite: EN 324L. (S)

EN 324L Mechanics of Materials Lab 1(0-2)
Measurements of stress-strain relationships and other destructive and non-destructive testing. Prerequisite: EN 211. Corequisite: EN 324. (S)

EN 333 Computer Components Engineering 3(3-0)
Engineering design and fabrication of silicon-based, bipolar, MOS microcircuits and other computer elements. Microcircuit design and layout. Prerequisites: EN 231 and 342. (*)

EN 340 Human Performance Engineering 2(1-2)
Principles and techniques of methods analysis and work measurement, human performance in human-machine systems. Corequisite: EN 315. Prerequisite: EN 103. (F)

EN 342 Engineering of Manufacturing Processes 4(3-2)
Materials and processes for manufacturing including machining, casting, and forming processes: design, modeling and control. Prerequisite: EN 211. (S)

EN 343 Engineering Economy 3(3-0)
Modeling, analysis and decision making involving time value of money, depreciation, income taxes and replacement analysis. Prerequisite: EN 103, or permission of instructor. (F)

EN 351 Heat Transfer 3(3-0)
Steady and unsteady conduction of heat. Convection heat transfer in boundary layer and duct flows. Forced and free convection. Thermal radiation. Prerequisite: EN 321. (*)

EN 420 Simulation Experiments 4(3-2)
Design and statistical analysis of experiments using discrete event simulation models. Prerequisite: EN 465. (S)

EN 421 Structural Analysis 3(3-0)
Analysis if indeterminate beams, frames and trusses by methods of moment of distribution, slope deflection, real work, virtual work and least work. Prerequisite: EN 324. (*)

EN 435 Microprocessor Control Systems 3(2-2)
Components of a microprocessor control system, digital processing, survey of state-of-the-art microprocessor control systems. Prerequisite: EN 333 (*)

EN 436 Computer Systems Engineering 3(3-3)
Analysis, mathematical modeling and design of integrated control and physical systems used in product and process design engineering. Prerequisites: EN 333 and MATH 337. (*)

EN 440 Safety Engineering 3(3-0)
Occupational safety and health in different industrial environments. Theories of accident causation, governmental regulation, mechanical, electrical and environmental hazards, protective equipment, hazard analysis, safety programs design and administration, systems safety, etc. Prerequisites: EN 340 and 343. (S)

EN 442 Manufacturing Processes II 3(3-0)
Materials and processes for manufacturing including sheet metal forming, welding, machining and advanced manufacturing processes. Prerequisites: EN 342. (*)

EN 443 Quality Control and Reliability 3(3-0)
Principles and methods of quality control and improvement. Quality management strategy: design and implementation of quality programs in organizations, problem solving techniques, quality improvement tools, etc. Statistical quality control: control charts, process capability evaluation, acceptance sampling procedures, etc. Prerequisite: EN 465. (S)

EN 456 Applied Statistics I 3(3-0)
Probability space, discrete and continuous random variables: distributions, mathematics expectation, sampling, statistical inference. Bayesian rule and linear regression. Prerequisites: MATH 256 and 356. (*)

EN 461 Engineering Hydraulics 3(3-0)
Steady and unsteady flow in pipes, open-channel flow, hydraulic measurements, critical depth and hydraulic jump, and design of spillways. Prerequisite: EN 301 or permission of instructor. (*)

EN 465 Stochastic Systems Engineering 4(4-0)
Analysis and design of industrial engineering systems containing elements of uncertainty. Probability modeling including Markov chains and queues. Prerequisite: MATH 224. (F)

EN 471 Operations Research 4(4-0)
Techniques for analysis and solution of problems in industrial and management systems. Linear programming, duality theory, sensitivity analysis, and network analysis techniques. Prerequisite: MATH 224. (F)

EN 473 Computer Integrated Manufacturing 3(2-2)
Engineering design, modeling and applications in production: automation, flowlines, robotics, numerical control, and computer usage in manufacturing. Prerequisites: EN 340 and 342. (F)

EN 475 Facility, Planning and Design 3(3-0)
Application of industrial and systems engineering techniques to problems related to an organization's physical resources. Facilities planning and plant layout, material handling, site selection and facilities location. Prerequisite: EN 471. (F)

EN 477 Operations Planning and Control 3(3-0)
Techniques for analysis and management of manufacturing operations and production with emphasis on inventory systems and forecasting. Prerequisite: EN 471 or permission of instructor. (S)

EN 488 Industrial Engineering Design Projects 3(3-0)
Application of industrial engineering principles to a design project. Prerequisites: EN 420, 471, and 475 . (F,S)

EN 491 Special Topics (1-5 VAR)
Prerequisite: junior standing. (*)

EN 495 Independent Study (1-5 VAR)
Prerequisite: junior standing. (*)

EN 496 Cooperative Education Placement (1-5 VAR)
Work experience under the direction of a field supervisor and a faculty member. Prerequisite: junior or senior standing. (F,S)

GRADUATE COURSES

EN 500 Logistics, Maintainability and Life-cycle Support 3(3-0)
Application of management systems analysis to problems of system maintainability and maintenance. Models of repair and failure, wear-out processes, maintenance and inspection policies and spare parts policies. Prerequisite: graduate standing. (*)

EN 501 Software Systems Engineering 3(3-0)
Software systems development and life cycles to include applications development stratagem, system development life cycle and phases, system development management, group dynamics in the development process, user requirements determination, and analysis and logical specification of the system. Cost forecasting of the engineering design through modeling. Prerequisite: graduate standing. (*)

EN 503 Ergonomics 3(3-0)
Theory and practice of human performance measurement and human factors engineering. Study of human sensory, perceptual mental, psychomotor, and other characteristics applied to the design of human-machine systems for performance effectiveness, productivity and safety. Prerequisite: graduate standing. (F)

EN 504 Scheduling and Sequencing 3(3-0)
Theory of determining scheduling and sequencing with stochastic extensions. An introduction to the complexity of computations in systems varying from single machine to job shop. Prerequisite: EN 571 or permission of instructor. (S)

EN 520 Simulation Experiments 4(3-2)
Design and statistical analysis of experiments using discrete event simulation models. Prerequisites: EN 465 and graduate standing. (S)

EN 530 Project Planning and Control 2(2-0)
Engineering project management including project selection, organization, planning, budgeting, scheduling and resource allocation, tracking and control, and evaluation. Prerequisite: Graduate standing. (F)

EN 540 Advanced Engineering Economics 3(3-0)
Advanced topics in engineering economy featuring income tax consideration, treatment of inflation, risk and uncertainty models, cost-effectiveness concepts, and project comparison methods. Prerequisite: EN 343, or permission of instructor. (S)

EN 556 (MATH 556) Design and Analysis of Experiments 3(3-0)
Foundations of experimental design, outline efficient methods to implement experiments, develop statistical methods to sort signal from noise, and analyze information derived from the experiment. Prerequisite: MATH 256 and 356. (SS)

EN 565 Stochastic Systems Engineering 3(3-0)
Analysis and design of systems containing elements of uncertainty in demand and performance capability. Time varying measures and approximations are emphasized. Additional work required of graduate students. Prerequisites: MATH 256 and 356. (*)

EN 571 Operations Research 4(4-0)
Techniques for analysis and solution of problems in industrial and management systems. Linear programming, duality theory, sensitivity analysis, and network analysis techniques. Additional work required of graduate students. Prerequisites: MATH 224 and graduate standing. (F)

EN 575 Facility Planning and Design 3(3-0)
Application of industrial and systems engineering techniques to problems related to an organization's physical resources. Facilities planning and plant layout, material handling, site selection and facilities location. Additional work required of graduate students. Prerequisite: EN 571 or permission of instructor. (F)

EN 577 Operations Planning and Control 3(3-0)
Techniques for analysis and management of manufacturing operations and production with emphasis on inventory systems and forecasting. Additional work required of graduate students. Prerequisite: EN 571 or permission of instructor. (S)

EN 588 Graduate Projects 3(3-0)
Application of graduate industrial engineering principles to a capstone design project. Prerequisite: EN 520, 571, 575, & 577. (*)

EN 590 Special Projects (1-3 VAR)
Individual project selected, outlined and pursued by student. May be repeated. Prerequisite: graduate standing and advisor approval. (*)

EN 591 Special Topics (1-3 VAR)
Selected topics in industrial and systems engineering. Heuristic design, reliability, industrial ergonomics, multi-criteria decision analysis, analytical facility location and site selection models. Not every topic offered each year. May be repeated. Prerequisite: Permission of instructor. (S)

EN 593 Graduate Seminar 2(2-0)
Seminar for students entering the systems engineering program. Philosophical, methodological and ethical issues in systems engineering are discussed (S/U grading). Prerequisite: Permission of instructor. (F)

EN 599 Thesis Research (1-6 VAR)
Preparation of thesis to meet degree requirements. Arranged with major adviser. May be repeated (IP and S/U grading). Prerequisites: graduate standing and adviser approval. (F,S)

ENGINEERING TECHNOLOGY (ET)

UNDERGRADUATE COURSES

ET 101 Introduction to Engineering Technology 2(1-2)
An introduction to the different engineering technology disciplines: technology teams, career opportunities, the design process, tools-of-the-trade, professional ethics. Team projects. (F)

ET 202 Statics 3(3-0)
Basic concepts and application of static forces; couples, resultants, equilibrium, trusses, cables, friction and centroids. Prerequisite: MATH 132. (F)

ET 206 Strength of Materials 4(3-2)
A study of stress-strain relationship; elastic and plastic behavior in materials; materials responses to various loads; Experimentation to demonstrate these principles. Prerequisites: MET 202, CET 202 or ET 202. (S)

ET 300 Project Planning, Scheduling and Management 3(3-0)
Project management including organization, plans, specifications, and administration. Project network planning, scheduling, and updating using CPM. Prerequisite: junior standing. (S)

ENGLISH (ENG)

UNDERGRADUATE COURSES

ENG 099 Developmental Writing Skills 3(3-0)
Sentence, paragraph and essay structure. Basic grammar and writing skills. (F,S) (S/U) Does not count toward graduation.

ENG 100 English as a Second Language (3-12 VAR)
Intensive practice in English Language skills with an emphasis on writing for non-native speakers of English. (*)

ENG 101 Composition I 3(3-0)
Beginning course in expository writing, emphasizing skills of written expression, organization, and presentation. Prerequisites: ENG 099 or a passing score on the USC Writing Assessment. (F,S,SS)

ENG 102 Composition II 3(3-0)
Sequential course to provide intensive consideration of essay development and to introduce procedures and techniques in preparing the referenced paper. Prerequisite: ENG 101. (F,S,SS)

ENG 103 College Reading 3(3-0)
Skills and strategies for successful reading of a variety of texts at the college level; practice in critical thinking and writing. (*)

ENG 106 (ANTHR 106) Language, Thought and Culture 3(3-0)
Cross-cultural introduction to language processes in human society. (F*)

ENG 130 Introduction to Literature 3(3-0)
Introduction to the three major literary genres: fiction, poetry, and drama. The main emphasis is on close reading and textual analysis. (*)

ENG 161 Careers for English Majors 1(1-0)
Identifies career options and presents employment opportunities for English majors. (*)

ENG 201 Introduction to Literary Study 3(3-0)
Introduction to literary genres, major periods and writers, close reading and textual analysis, modern literary criticism, and research methods. Prerequisite: ENG 102. (*)

ENG 220 (CS 220) Survey of Chicano Literature 3(3-0)
Survey of outstanding contemporary Chicano works. Literature deals with Chicano themes, including analysis of folklore and myth. (F)

ENG 223 Modern World Literature 3(3-0)
Introduction to modern world literature and to international social, political and economic issues through literary works by authors from around the world. (*)

ENG 240 Survey of Ethnic Literature 3(3-0)
This course provides an introduction to the literature of four major ethnic groups in the U.S.: Native American, African American, Chicano, and Asian American. (*)

ENG 251 Traditional Grammar Theory 3(3-0)
Primarily for non-majors who wish to improve their understanding of how language works, for teacher education majors, and for English majors who want additional background for advanced language courses. Prerequisite: ENG 102 or 121 or permission of the instructor. (*)

ENG 254 Literature of Science Fiction 3(3-0)
Imaginative literature of fact and fiction, reading, lectures, movies, and television. (*)

ENG 260 (WS 260) Women in Literature 3(3-0)
A survey of literature written by women. Examines the ways in which women's literature both critiques and contributes to the larger culture. (*)

ENG 291 Special Topics (1-3 VAR) (*)

ENG 303 Adv. Comp., Rhetoric, and Grammar 3(3-0)
Advanced persuasive writing, including rhetoric and grammar. Prerequisite: ENG 102. (*)

ENG 305 Technical and Scientific Report Writing 3(3-0)
Emphasis on discrete professional formats and styles in writing manuals, proposals, government contracts and reports. For upperclassmen in technical and professional fields. Prerequisite: ENG 102 or 121 or permission of instructor. (F,S)

ENG 310 American Literature I 3(3-0)
Literature from colonial times to 1900, including the growth of naturalism and the rise of Romanticism and Realism. Prerequisite: junior standing or permission of the instructor. (F)

ENG 312 American Literature II 3(3-0)
Continuation of ENG 310; literature from 1900 to the present. Prerequisite: junior standing or permission of the instructor. (S)

ENG 315 Creative Writing: Poetry 3(3-0)
Introduction to writing poetry. A studio workshop for students to grow in their appreciation of poetic processes. Prerequisite: ENG 102 or 121 or permission of instructor. (*)

ENG 316 Creative Writing: Fiction 3(3-0)
Introduction to creating character, situation, and overall structure, emphasis on imaginative and real-life portrayal. Prerequisite: ENG 102 or 121 or permission of instructor. (*)

ENG 317 Creative Nonfiction 3(3-0)
Introduction to writing the reflective essay. Prerequisite: ENG 102 or 121or permission of instructor. (S)

ENG 321 American Romanticism 3(3-0)
A study of the major figures in the development of American Romanticism. Prerequisites: ENG 310 and 312, or permission of instructor. (*)

ENG 322 American Literary Realism, 1870-1910 3(3-0)
A study of the development of Realism and Naturalism in American literature during the late 19th century and the early 20th century. Prerequisites: ENG 310 and 312, or permission of instructor. (*)

ENG 323 Modern American Literature 3(3-0)
A study of major writers' themes, and developments in American literature from the 1910s to the 1960s. Prerequisites: ENG 310 and 312 or permission of instructor. (*)

ENG 324 American Cinema/American Culture 3(3-0)
From early twentieth century to date, a survey of profoundly influential, selected American films, their aesthetic, cultural and technological impacts. (*)

ENG 325 Nature Writing in the West 3(3-0)
Studies in writings about the western landscape and environment by American nature writers; intensive practice in nature writing. (S)

ENG 326 Writing for the WEB 3(3-0)
Writing for the World Wide Web and intranets, including rhetorical approaches, elements of design, and organizing informative sites for education, government, business, and the arts. Prerequisite: ENG 102. (S)

ENG 330 Modern European Drama 3(3-0)
Survey of major developments in modern European drama. Prerequisite: ENG 101. (*)

ENG 331 Development of the Novel I 3(3-0)
Emphasis on social problems and European influences, focus on trends coming to full development in the 20th century. Includes recent works. (*)

ENG 341 Western World Literature I 3(3-0)
Historical and thematic study of major writers from ancient Greece to the Renaissance. Prerequisite: junior standing or permission of the instructor. (F)

ENG 342 Western World Literature II 3(3-0)
Continuation of ENG 341; literature from the Renaissance to the present. Prerequisite: junior standing or permission of the instructor. (S)

ENG 351 Children's Literature 2(2-0)
Classic and contemporary children's literature with emphasis on selection and evaluation. (*)

ENG 352 English Syntax and Usage 3(3-0)
English usage and language systems, emphasis on forms and functions of language analysis. (*)

ENG 360 Literature of England I 3(3-0)
Literature and literary history of England from the Anglo-Saxon period to the Romantic period. Prerequisite: junior standing or permission of the instructor. (F)

ENG 362 Literature of England II 3(3-0)
Continuation of ENG 360; literature and literary history of England from the Romantics and Victorians through the 20th-century. Prerequisite: junior standing of permission of the instructor. (S)

ENG 363 17th-Century British Literature 3(3-0)
Drama, prose, and poetry of Bacon, Donne, Jonson, Herbert, Milton, Marvel, Pepys, Behn, and others. (*)

ENG 364 18th-Century British Literature 3(3-0)
Dryden, Swift, Defoe, Boswell, Johnson, Pope, Fielding, Blake, Austen, Radcliffe, or other major writers. (*)

ENG 365 19th-Century British Literature 3(3-0)
Arnold, Tennyson, E. Browning, R. Browning, Eliot, Ruskin, Carlyle, Mill and the poetry of women writers. (*)

ENG 381 Shakespeare 3(3-0)
Representative works in various genres, with attention to cultural and critical contexts. (*)

ENG 391 Special Topics (1-3 VAR)
Prerequisite: ENG 102 or 121 or permission of instructor. (*)

ENG 412 Literature for Adolescents 2(2-0)
Literature suitable for adolescents, including classical and contemporary authors, and issues in selection and evaluation. (*)

ENG 422 Contemporary Literature 3(3-0)
Study of contemporary literary techniques, subject matter, and themes in fiction, drama, and poetry from 1960 to the present. (*)

ENG 440 (MCCNM 440) Magazine Writing 3(3-0)
Instruction and practice in writing nonfiction magazine articles with emphasis on story research and market selection. Prerequisite: ENG 203 or 317 or permission of instructor. (*)

ENG 441 Chaucer and His Age 3(3-0)
Chaucer and his contemporaries in their cultural and historical setting. (*)

ENG 452 History of the English Language 3(3-0)
English language from Anglo-Saxon period to present; emphasis on history linguistic and structural changes. Prerequisite: ENG 251, 352, or permission of instructor. (*)

ENG 461 Careers for English Majors 1(1-0)
Identifies and explores graduate school and employment opportunities. (*)

ENG 481 Literary Criticism 3(3-0)
Traditional and contemporary critical approaches to literature and their applications. (*)

ENG 491 Special Topics (1-3 VAR) (*)

ENG 493 Senior Seminar 3(3-0)
In-depth analysis of specific topics, themes, authors, and works in American, English or world literature. (*)

ENG 494 Field Experience (1-5 VAR)
A semester-long internship. Student performs professional duties using English-related skills required by the cooperating agencies. (*)

ENG 495 Independent Study (1-3 VAR)
Directed, intensive study and guidance in studying major literary figures or movements, arranged with the chair of the department. (*)

GRADUATE COURSES

ENG 511 Seminar: American Literature 3(3-0)
In-depth analysis of specific topics, themes, authors, and works. Prerequisite: graduate standing. (*)

ENG 512 Literature for Adolescents 2(2-0)
Literature suitable for adolescents, including classical and contemporary authors as well as issues in selection and evaluation. Prerequisite: graduate standing. (*)

ENG 578 Workshop in the Teaching of Writing 3(3-0)
Theories of composition, methods, sources and resources for teachers of writing. Prerequisite: graduate standing. (*)

ENG 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing (*)

ENG 595 Independent Study (1-3 VAR)
Directed, intensive study and guidance for studying major literary figures or movements; arranged with the chair of the department. Prerequisite: graduate standing. (*)

EXERCISE SCIENCE AND HEALTH PROMOTION (EXHP)

UNDERGRADUATE COURSES

EXHP 101 Introduction to Exercise Science & Health Promotion 3(3-0)
Fundamentals of exercise and health promotion-related professions as a health science discipline. Overview of health promotion, fitness, athletic training and school-based programs and career opportunities. A prerequisite for EXHP 344. (F)

EXHP 104L Personal Fitness 1(0-2)
Students will learn how to evaluate their personal fitness level and develop a comprehensive exercise program beneficial to their overall health and wellness. (*)

EXHP 107L Scuba Diving 1(0-2)
Students will learn the basic skills, knowledge and equipment necessary to receive beginning scuba certification. The class includes an off-campus checkout dive for certification purposes. (*)

EXHP 109L Volleyball 1(0-2)
An introduction to the fundamental skills, rules and strategies used in power volleyball. (F,S)

EXHP 110L Weight Training 1(0-2)
An introduction to basic strength evaluation, fundamental machine and free weight techniques and safety concepts in the weight room. (F,S)

EXHP 112 (BIOL 112) Nutrition 3(3-0)
Analysis of personal dietary habits and behavior in relation to basic human nutritional needs and food composition. (F,S)

EXHP 113L Whitewater Boating 1(0-2)
Introduction class in which the following skills are taught: basic strokes, Eskimo rolling, how to read water, and clothing requirements. The class will include lecture, pool and river trip sessions. (*)

EXHP 114L Basic Mountaineering Techniques 1(0-2)
A basic camping class designed to teach the fundamentals of self-sufficient tent camping. Emphasizes clothing, equipment selection, nutrition, and Leave No Trace guidelines. (*)

EXHP 115L Skiing 1(0-2)
Fundamentals of alpine and Nordic skiing will be examined in this course. Equipment, clothing, trip planning, cross-country, telemark and alpine skiing will be reviewed as the student attends the skiing trips. These trips range from backcountry to downhill ski resorts. (*)

EXHP 116L Camping 1(0-2)
An introduction course to instruct the basics of traveling in the backcountry with everything one needs in their backpack. Clothing, equipment, orienteering, first aid, route and campsite selection will be emphasized during the trips that are required for this class. (F)

EXHP 117L Backpacking 1(0-2)
Students will experience climbing one or more mountains in the state of Colorado. Clothing, travel techniques, food, route finding and time management are just some of the topics explored in this course. (F)

EXHP 118L Jogging 1(0-2)
An introduction to walking/jogging/running techniques, training programs, fitness assessment, appropriate footwear and safety considerations. (*)

EXHP 120L Aerobics 1(0-2)
Introduction and participation in the techniques used in rhythmic aerobic dance. Students are able to select from a variety of formats including but not limited to floor aerobics, step aerobics and aqua-aerobics. (*)

EXHP 143L Folk, Square, and Ballroom Dance 1(0-2)
Overview of the music and dance techniques used in Folk, Square and Ballroom dancing. (*)

EXHP 162 (BIOL 162) Personal Health 3(3-0)
The development of knowledge and the scientific basis for the analysis, evaluation and promotion of personal health and wellness. (F,S)

EXHP 174L Tennis 1(0-2)
An introduction to the fundamental skills, rules and strategies used in the game of tennis. (*)

EXHP 175L Racquetball 1(0-2)
An introduction to the fundamental skills, rules and strategies used in the game of racquetball. (*)

EXHP 176L Life Guard Training 1(0-2)
Certification course in the American Red Cross Life Guarding program designed to provide lifeguard candidates and lifeguards with the skills and knowledge necessary to keep patrons of aquatic facilities safe in and around the water. Prerequisite: swimming pre-test. (*)

EXHP 187L Intercollegiate Sports I 2(0-4)
Participation in an intercollegiate sports program. Course registration is limited to freshman competing in a varsity sport program offered by USC.

EXHP 188L Elementary Physical Conditioning 2(0-4)
Participation in an intercollegiate sport program off-season conditioning program. Enrollment is limited to freshman students competing in a varsity sport program at USC. (F,S)

EXHP 189 Practicum in Athletic Training I 1(0-2)
Introduction to clinical proficiencies based on the Clinical Education Competencies established by the NATA and instruction, practice, and application of skills. Prerequisites: EXHP 260, current CPR certification. (S/U Grading) (F)

EXHP 201 Drugs and Healthy Lifestyles 3(3-0)
An overview of the impact of drug abuse in today's society along with prevention information and treatment programs available. (F,S,SS)

EXHP 222 Behavior Facilitation 3(3-0)
Study the influence of social and behavioral systems on health. Emphasis on the fundamentals of self-directed behavior change, health dysfunctions, and stress management. (F)

EXHP 231 Cardiopulmonary Resuscitation 1(1-0)
Technique of applying a combination of artificial respiration and artificial circulation in the event cardiac arrest occurs. (S/U grades) (*)

EXHP 232 First Aid (2-3 VAR)
Knowledge and skills in current first-aid and CPR procedures. Red Cross certification. Students in the Athletic Training track are required to enroll for 3 credits. (F,S,SS)

EXHP 233 History and Principles of Physical Education and Recreation 2(2-0)
Study of the history, philosophy and perspectives of physical education and recreation, and their influence upon contemporary American society. (F)

EXHP 242 Motor Learning 3(3-0)
Techniques of teaching low organized games and enrichment activities at the elementary school level with emphasis on the development of perceptual-motor learning. (F)

EXHP 243 Methods of Rhythmic Activities 2(2-0)
Fundamentals of folk, square and social dance; emphasis on the teaching techniques involved in basic dance styles and rhythms. (S)

EXHP 245 Motor Learning and Development 3(3-0)
Applied analysis of motor learning and motor development principles and theories throughout the human life span. (S)

EXHP 260 Care and Prevention of Athletic Injuries 3(3-0)
Procedures in the prevention, care and treatment of injuries sustained during activity and athletic participation. Prerequisites: EXHP 232, current CPR certification, BIOL 223, 223L, permission of instructor. (F)

EXHP 276L Water Safety Instructor Certification 2(0-2)
Water safety instruction certification may be earned in this course. Prerequisite: EXHP 176L. (*)

EXHP 287L Intercollegiate Sports II 2(0-4)
Participation in an intercollegiate sports program. Course registration is limited to sophomore student-athletes competing in a varsity sport program offered at USC.

EXHP 288 Health Promotion Practicum 3(1-4)
Observation and limited participation as a paraprofessional in local health management programs. (F)

EXHP 288L Advanced Physical Conditioning 2(0-4)
Participation in an intercollegiate sport program off-season conditioning program. Enrollment is limited to sophomore student-athletes competing in a varsity sport program at USC. (F,S)

EXHP 289 Practicum in Athletic Training II 1(0-2)
Instruction and practice of clinical skills based on the Clinical Education Competencies established by the National Athletic Trainers' Association. Prerequisites: EXHP 189, current CPR certification. (S/U grading) (S)

EXHP 289L Student Assistant 1(0-2) (F,S)

EXHP 291 Special Topics (1-5 VAR) (F,S)

EXHP 322 Methods of Elementary School Physical Education 2(2-0)
Mental, emotional, social and physical needs of elementary school age children; planning programs, selecting materials and methods of teaching physical education at this level. (F,S)

EXHP 343 Measurement and Evaluation 3(3-0)
Modern testing programs in physical education; emphasis on preparation and administration of both written and skills tests. Prerequisite: MATH 109 or 121 or permission of instructor. (F)

EXHP 344 Exercise Physiology 3(3-0)
Physiologic control of the human body during acute exercise, and adaptations to regular exercise stress. Emphasis on relationships among health, fitness, and exercise. Prerequisites: BIOL 223, 223L, MATH 109 or 121, EXHP 343. (F)

EXHP 344L Exercise Physiology Lab 1(0-2)
Extension of course lecture which provides practical experience in laboratory experiments which address exercise and exercise theory. Corequisite: EXHP 344. Prerequisites: BIOL 223, 223L, MATH 121 or 109, EXHP 343. (F)

EXHP 345 Methods of Team Sports I 2(2-0)
Basic skills and techniques of soccer and volleyball; emphasis on teaching procedure. Prerequisite: EXHP 245. (F)

EXHP 346 Methods of Team Sports II 2(2-0)
Basic skills and techniques of track and field, basketball and softball; emphasis on organization and teaching procedures. Prerequisite: EXHP 345. (S)

EXHP 348 Methods of Individual and Dual Sports 2(2-0)
Basic skills and techniques of tennis, racquetball, badminton and golf; emphasis on teaching procedures in these activities. (S)

EXHP 351 Methods of Teaching Elem Physical ED 2(2-0)
Study of effective teaching for elementary children including; maximizing student learning, student and self-assessment, utilization of resources, planning, implementation and revision. 30 hours field experience. Prerequisites: acceptance into Teacher Education Program. Corequisite: EXHP 478. (F.S)

EXHP 360 Therapeutic Modalities and Rehabilitation 4(3-2)
Focus on and practical application of rehabilitation theories, techniques, and protocol. Prerequisite: EXHP 289 (F)

EXHP 362 Therapeutic Modalities 3(3-0)
Study of theories and application of modalities used in the athletic training setting for the treatment of injuries. Prerequisite: EXHP 260. (F)

EXHP 363 Rehabilitation Theory and Practice 3(3-0)
Study of current rehabilitation theories and application in the athletic training setting. Prerequisite: EXHP 362. (S)

EXHP 364 Kinesiology 3(3-0)
Integration of fundamentals of anatomical and structural components of human movement with the study of fundamental body movements and the primary muscles involved in those movements. Prerequisites: BIOL 223, 223L. (S)

EXHP 382 Lifestyle Disease Risk Reduction 3(3-0)
Overview of principles of epidemiology and lifestyle-disease pathophysiology; examination of use of epidemiologic research to identify risk factors for disease. Prerequisites: EXHP 288, BIOL 223, 223L, 224, 224L. (S)

EXHP 389 Practicum in Athletic Training III 1(0-2)
A continuing of instruction and practice of clinical skills based on the Clinical Education Competencies established by the National Athletic Trainers' Association. Prerequisites: EXHP 289, current CPR certification. (S/U grading) (F)

EXHP 389L Student Assistant 1(0-2) (F,S)

EXHP 400 Workshop (1-5 VAR)
Learning experience in physical education offered in large blocks of time not corresponding to the weekly meeting times of the regular course offerings. Prerequisite: approval of program chair. (*)

EXHP 442 Advanced Training Room Methods 3(3-0)
Preparation of pre-sports medicine majors to successfully complete the National Athletic Trainers Certification test. Prerequisite: EXHP 389. (S)

EXHP 443 Advanced Topics in Athletic Training 3(3-0)
An examination of current topics in athletic training including legal liability, athletic training administration issues, and budgetary concerns. Prerequisites: EXHP 362, 363. (S)

EXHP 444 Exercise Assessment and Programming 3(2-2)
Methods used in assessing physical fitness and in developing exercise programs for apparently healthy people in order to achieve optimal health. Prerequisites: EXHP 344, 344L. (S)

EXHP 445 Exercise Leadership 3(3-0)
Basic skills and techniques of a total fitness program including weight training, stretching, rhythmic aerobics, water aerobics, circuit training, body composition and assessing fitness levels. Prerequisites: EXHP 344, 344L. (F)

EXHP 450 Orthopaedic Evaluation I 3(3-0)
The first of a two course sequence, this is an in-depth study of assessment techniques and protocols applicable to injuries to the lower body. Prerequisites: EXHP 260, 364. (F)

EXHP 451 Orthopaedic Evaluation II 3(3-0)
A continuation of Orthopaedic Evaluation I examining special tests of the spine and upper body. Prerequisite: EXHP 450. (S)

EXHP 461 Program Administration in Physical Education and Recreation 3(3-0)
Organizational and administrative process necessary for the responsible conduct of physical education, recreational activities and interscholastic athletics. Corequisite: senior standing. (S)

EXHP 465 Adapted Physical Education 3(3-0)
Remedial and corrective programs in physical education; emphasis on diseases and injuries which cause individuals to require special attention above and beyond the regular physical education program. Prerequisites: BIOL 223, 223L. (S)

EXHP 470 Methods of Coaching and Officiating 3(3-0)
Skills and methods of coaching and officiating sports. (F)

EXHP 471 Coaching and Officiating Football 2(2-0)
Techniques and strategy of coaching and officiating football. (*)

EXHP 472 Coaching and Officiating Basketball 2(2-0)
Techniques and strategy of coaching and officiating basketball. (F)

EXHP 473 Coaching Certification Clinic 1(1-0)
Overview of principles of coaching, scientific basis of coaching, management and legal issues in coaching, and sports first-aid. Required for American Sports Education Program coaching certification. (SS)

EXHP 475 Coaching and Officiating Volleyball 2(2-0)
Techniques and strategy of coaching and officiating volleyball. (F)

EXHP 478 Methods of Teaching Secondary Physical Education 3(2-2)
Study of effective teaching with emphasis on teaching methods, student learning time, classroom management and program planning. 30 hours field experience. Prerequisite: admission to Teacher Education Program. Corequisite: EXHP 351 (F,S)

EXHP 479 Practicum in Athletic Training IV 1(0-2)
A continuing of instruction and practice of clinical skills based on the Clinical Education Competencies established by the National Athletic Trainers' Association. Prerequisites: EXHP 389, current CPR certification. (S/U grading) (S)

EXHP 482 Coaching and Officiating Wrestling 2(2-0)
Techniques and strategy of coaching and officiating wrestling. (S)

EXHP 483 Coaching and Officiating Baseball 2(2-0)
Techniques and strategy of coaching and officiating baseball. (S)

EXHP 484 Coaching and Officiating Soccer 2(2-0)
Techniques and strategies of coaching and officiating soccer. (S)

EXHP 485 Health Promotion Programs 3 (2-2)
Planning and implementation of health-risk screenings and educational components of health promotion programs. Prerequisite: EXHP 344 or permission of instructor. (F)

EXHP 487 Health Promotion Program Planning/Evaluation 4(3-2)
Focus on planning, implementing, and evaluating work site health promotion programs. Prerequisite: EXHP 485. (S)

EXHP 489 Senior Practicum in Athletic Training 1(0-2)
This course will review the clinical proficiencies providing preparation for the NATABOC examination. Prerequisite: EXHP 479. (S/U grading) (S)

EXHP 491 Special Topics (1-5 VAR)
Permission of instructor. (*)

EXHP 494 Field Experience (1-5 VAR)
Learning experience to be conducted in the actual environment and supervised by the physical education program. (S/U grades) Prerequisite: approval of the department chair. (*)

EXHP 495 Independent Study (1-5 VAR)
Prerequisite: approval of the department chair. (*)

EXHP 498 Internship 12(0-36)
480 hours of full-time, supervised experience with approved professionals in select athletic training or health promotion settings. Prerequisite: senior standing, completion of all other degree requirements, 2.5000 GPA in the major and department chair approval. (*)

GRADUATE COURSES

EXHP 500 Workshop (1-5 VAR)
Graduate learning experience in physical education offered in large blocks of time not corresponding to the weekly meeting times of the regular course offerings. Prerequisite: approval of program chair. (*)

EXHP 522 Methods of Elementary Physical Education 2(2-0)
Advanced course of mental, emotional, social and physical needs of elementary school-age children; emphasis on planning programs, selecting materials and methods of teaching physical education at this level. Prerequisite: graduate standing. (*)

EXHP 591 Special Topics (1-5 VAR)
Graduate level study or activity designed to increase understanding in areas not covered by regular offerings of the department. Prerequisite: approval of program chair. (*)

FACILITIES MANAGEMENAT AND TECHNOLOGY STUDIES (FMTS)

UNDERGRADUATE COURSES

FMTS 103 Intro to Facility Management and Technology Studies 2(2-0)
Qualifications, opportunities, preparation, and duties in the fields of teaching technology and facilities management. (F)

FMTS 140 Office and Furniture Design 3(3-0)
Design aspects of the modern office including furniture and furnishings, facility and space planning, productivity, comfort and efficiency. (F)

FMTS 205 Issues and Trends in Technology 3(3-0)
Current aesthetic, economic, environmental, ethical, global, ideological, legal, personal, societal, etc., impacts, issues and trends in technology. (F,S,SS)

FMTS 206 Commercial and Residential Construction 3(2-2)
Building systems and materials related to foundations, interior finishes, roofing, glazing, cladding used in wood, masonry, steel and concrete construction from a contractor's perspective. (S)

FMTS 230 Environmental Issues in Facilities 3(3-0)
Develop and learn to implement practices that protect and promote health, safety, security, quality of work life, the environment and organizational effectiveness. (S)

FMTS 296 Cooperative Education Internship (1-5 VAR)
For freshmen and sophomores. Work experience under direction of a field supervisor and faculty member.(F, S, SS)

FMTS 306 Building Mechanical Systems 3(2-2)
Study of building mechanical systems including heating, ventilation, air conditioning, plumbing, and fire protection from a designer's perspective. (F)

FMTS 309 Building Electrical Systems 3(2-2)
Study of building electrical systems including communication and control, transportation, security, power distribution and lighting from a designer's perspective. (S)

FMTS 341 Facilities Planning and Layout 3(3-0)
The principles of facilities planning relating to location, material flow, placement of real and personal property, workstation configuration and developing a facilities plan. (F)

FMTS 350 Facilities Management Administration 3(3-0)
Planning, organizing, staffing, budgeting and administering a facilities management organization and delivering facilities services. (F)

FMTS 351 Facilities Management Operations 3(3-0)
Planning, programming, budgeting and managing facilities design, construction, renovation and sustainment operations. Prerequisite: FMTS 350. (S)

FMTS 430 Industrial Safety 3(3-0)
Laboratory organizational patterns, administrative duties of the teacher, and safety regulations. (S)

FMTS 431 The Facilities Supervisor 3(3-0)
Preparation for assuming leadership of facilities management organizations. Includes self-preparation, organizational effectiveness, motivational and other techniques. Prerequisite: FMTS 350 and 351. (S)

FMTS 442 Computer Aided Facility Management 3(2-2)
A study of the availability, capabilities, analysis, selection, justification, acquisition, installation and operation of computerized systems designed to enhance facilities management. Prerequisite: CET 313/FMTS 351. (S)

FMTS 490 Special Projects (1-5 VAR)
Prerequisite: junior or senior standing; permission of instructor. (F,S,SS)

FMTS 491 Special Topics (1-5 VAR)
Emerging Topics in Industrial Science not currently included in other courses. Prerequisite: junior/senior standing with program coordinator permission. (F,S)

FMTS 493 Seminar (1-5 VAR)
Individual and small-group activities. Individual experimentation and expertise development in facilities management and/or technology studies. (F)

FMTS 495 Independent Study (1-5 VAR)
For advanced students. Each student selects, outlines and pursues a project. Instructor approval and supervision provided. May be repeated. (F,S,SS)

FMTS 496 Cooperative Education Internship (1-5 VAR)
Work experience under direction of field supervisor and faculty member. Prerequisite: junior or senior standing. (F,S,SS)

FMTS 431 The Facilities Supervisor 3(3-0)
Preparation for assuming leadership of facilities management organizations. Includes self-preparation, organizational effectiveness, motivational and other techniques. Prerequisite: FMTS 350 and 351. (S)

FMTS 442 Computer Aided Facility Management 3(2-2)
A study of the availability, capabilities, analysis, selection, justification, acquisition, installation and operation of computerized systems designed to enhance facilities management. Prerequisite: CET 313/FMTS 351. (S)

FMTS 490 Special Projects (1-5 VAR)
Prerequisite: junior or senior standing; permission of instructor. (F,S,SS)

FMTS 491 Special Topics (1-5 VAR)
Emerging Topics in Industrial Science not currently included in other courses. Prerequisite: junior/senior standing with program coordinator permission. (F,S)

FMTS 493 Seminar (1-5 VAR)
Individual and small-group activities. Individual experimentation and expertise development in facilities management and/or technology studies. (F)

FMTS 495 Independent Study (1-5 VAR)
For advanced students. Each student selects, outlines and pursues a project. Instructor approval and supervision provided. May be repeated. (F,S,SS)

FMTS 496 Cooperative Education Internship (1-5 VAR)
Work experience under direction of field supervisor and faculty member. Prerequisite: junior or senior standing. (F,S,SS)

GRADUATE COURSES

FMTS 590 Special Projects (1-5 VAR)
For advanced students. Each selects, outlines and pursues a project. Instructor approval and supervision provided. May be repeated. Prerequisite: graduate standing. (*)

FMTS 591 Special Topics (1-5 VAR)
Individual and small-group activities in individual experimentation and expertise development in technology education. May be repeated. Prerequisite: graduate standing. (*)

FMTS 592 Research (1-5 VAR) (*)

FMTS 593 Seminar (1-5 VAR)
Individual and small-group activities. Current topics, issues, resources, and practices. May be repeated. (*)

FMTS 595 Independent Study (1-5 VAR)
For advanced students. Each selects, outlines and pursues a project. Instructor approval and supervision provided. May be repeated. Prerequisite: graduate standing. (*)

FINANCE (FIN)

UNDERGRADUATE COURSES

FIN 330 Principles of Finance 3(3-0)
Principles of finance involved in problems confronting business organizations. Prerequisites: ACCTG 200 or 202, ECON 201 and ECON 202. (F,S)

FIN 331 Managerial Finance: Policy, Planning and Control 3(3-0)
Financial management, planning, policy formulation and financial decision making. Prerequisite: FIN 330 and BUSAD 265. (*)

FIN 332 International Finance 3(3-0)
Principles of financial theory and practice confronting the financial management of multinational corporations. Prerequisite: FIN 331. (F,S,SS)

FIN 333 Investment Analysis 3(3-0)
Analysis and forecasting of security markets, industry and company studios, portfolio selection and management. Prerequisite: FIN 330 and BUSAD 260. (*)

FIN 335 Real Estate Finance 3(3-0)
Principles of real estate financing with emphasis on residential markets, economics, governmental and location factors, financing, and real estate transactions. Prerequisite: FIN 330. (*)

FIN 430 Financial Institutions and Markets 3(3-0)
The role of financial institutions, instruments and markets; structure of interest rates; the Federal Reserve and monetary policy; and the structure, regulation, portfolio and risk management of financial institutions. Prerequisites: FIN 330 and ECON 310. (*)

FIN 431 Financial Policy Analysis 3(3-0)
Analysis of financial policies in various organizations. Emphasis on managerial problems in long-range planning, decision making under uncertainty, risk measurement and applications of capital markets. Prerequisites: FIN 331 and 333. (*)

FIN 489 Advanced Principles of Finance 1(1-0)
A review of corporate financial goals, agency cost, the time value of money, valuation of financial assets and risk/return concepts. Prerequisite: Permission of MBA director. (*)

FIN 490 Special Projects (1-6 VAR) (*)

FIN 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

FIN 495 Independent Study (1-3 VAR)
Prerequisites: senior standing in School of Business and permission of the department chair. (*)

FIN 498 Internship (1-6 VAR)
Supervised field work in selected business, social and governmental organizations; supplemented by written reports. Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (S/U grades) (*)

GRADUATE COURSES

FIN 530 Financial Management 3(3-0)
Theory and application of investment, financing and dividend decisions to maximize stockholder wealth. Use of analytical cases to solve financial problems facing business firms. Prerequisite: graduate standing. (*)

FIN 575 International Financial Management 3(3-0)
Financial theory and practice as applied to the financial management of multinational corporations. Prerequisite: FIN 530 and graduate standing. (*)

FIN 591 Special Topics 3(3-0)
Prerequisite: graduate standing (*)

FIN 592 Research (1-6 VAR)
The student will work under the close supervision of a graduate faculty member in basic or applied research resulting in a report of high academic quality. (IP and S/U grading). (*)

FIN 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: graduate standing. (*)

FIN 598 Internship 3(3-0)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: Graduate standing. (S/U grading) (*)

FIN 599 Thesis Research (1-6 VAR)

FOREIGN LANGUAGE (FL)

UNDERGRADUATE COURSES

FL 100 Introduction to Comparative Linguistics 3(3-0)
Basic concepts in linguistics; comparison of languages. (F,S)

FL 101 Introduction to a Critical Foreign Language I 3(3-0)
Study of a foreign language not offered regularly. Different languages are offered when enrollment permits. (*)

FL 102 Introduction to a Critical Foreign Language II 3(3-0)
Prerequisite: FL 101, or permission of instructor. (*)

FL 110 Foreign Language for Travel 1(1-0)
Fundamental vocabulary for basic tourist communication. (*)

FL 270 Foreign Language Field Trip (2-6 VAR)
Communication, lectures by writers, artists, political leaders and specialists. Visits to museums, attendance at movies, theatre and excursions. Prerequisite: permission of instructor. (*)

FL 291 Special Topics (1-3 VAR)
(F,S)

FL 494 Field Experience (1-7 VAR)
Communication, lectures by writers, artists, political leaders and specialists. Visits to museums, attendance at movies, theaters and excursions. Prerequisite: two years of college study in the language of the country or countries visited and permission of instructor. (*)

FL 495 Independent Study (1-3 VAR)
Specific themes which address particular problems of literature or civilization. May be repeated for credit with approval of major adviser. Prerequisite: two years of college study of the language used for project. (*)

GRADUATE COURSE

FL 591 Special Topics (1-3 VAR) (*)

FRENCH (FRN)

UNDERGRADUATE COURSES

FRN 101 Beginning Spoken French I 4(3-2)
Grammar and pronunciation with aural-oral training to develop skills in understanding and speaking. Written exercises to develop reading and writing skills. Introduction to French culture. (F,S)

FRN 102 Beginning Spoken French II 4(3-2)
Students are placed by the department. Practice in oral, aural, reading and writing experiences. Prerequisite: FRN 101 OR equivalent. (F,S)

FRN 201 Intermediate French I 4(3-2)
Grammar review, idioms and writing of compositions. Selected readings with oral and written exercises. Prerequisite: FRN 102 or equivalent. (F)

FRN 202 Intermediate French II 4(3-2)
Grammar review, idioms and writing of compositions. Selected readings with oral and written exercises. Prerequisite: FRN 201 or equivalent. (S)

FRN 301 Advanced French Grammar I 3(3-0)
Systematic review of grammar; presentation of the more sophisticated syntactical patterns to enable students to write correctly. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 311 Advanced French Conversation I 3(3-0)
Emphasis on acquisition of vocabulary and idiomatic expressions. Advanced oral practice. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 312 Advanced French Conversation II 3(3-0)
Alternate for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 341 Masterpieces of French Literature 3(3-0)
Close study of outstanding French works with emphasis on literary forms, critical methods and techniques. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 351 French Phonetics and Diction 3(2-2)
French pronunciation: theory, correction and practice of diction and intonation. Phonetic transcription and remedial exercises. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 381 French Civilization I 3(3-0)
Geography, art, architecture, economics and social problems, correlated with history from the origins to contemporary France. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 382 French Civilization II 3(3-0)
Alternate for teacher certification. Prerequisite: FRN 202, or permission of instructor. (F)

FRN 387 Intensive French Study Abroad (6 -12 VAR)
Study of French in an immersion setting abroad preparing the student to become fluent in the language through the study of grammar, civilization and culture. Prerequisite: permission of instruction; FRN 201. (*)

FRN 494 Field Experience (1-7 VAR)
Communication, lectures by writers, artists, political leaders and specialists. Visits to museums, attendance at movies, theaters and excursions. Prerequisite: two years college French. (*)

FRN 495 Independent Study (1-3 VAR)
Specific themes which address particular problems of literature or civilization. May be repeated for credit with approval of major adviser. (*)

GEOGRAPHY (GEOG)

UNDERGRADUATE COURSES

GEOG 101 Physical Geography 3(3-0)
Three Earth spheres: the hydrosphere (oceanography, hydrologic cycle); the atmosphere (meteorology and climatology) and the lithosphere (geology, internal/external processes) are emphasized and examined. (F,S,SS)

GEOG 102 Cultural Geography 3(3-0)
Emphasis on cultural regions, cultural diffusion, and cultural landscape. Major themes are culture, population, agriculture, language and religion, ethnicity, urbanization, industry, and political geography. (F/S/SS)

GEOG 103 World Regional Geography 3(3-0)
The interconnectivity and interrelationship of the world regions by stressing physical, economic development, agricultural, cultural and population characteristics. Strengthening of one's mental world map. (F,S)

GEOG 491 Special Topics 3(3-0)
Devoted to special topics in Geography (human, physical, and regional). Prerequisites: Jr. or Sr. standing with adequate preparation and permission of instructor. (F,S,SS)

GEOLOGY (GEOL)

UNDERGRADUATE COURSES

GEOL 101 Earth Science 3(3-0)
Four earth spheres: the hydrosphere (oceanography, hydrologic cycle); the atmosphere (meteorology and climatology); the lithosphere (geology; internal and external processes); and space are emphasized. Co-requiste: GEOL 101L. (F,S)

GEOL 101L Earth Science Lab 1(0-2)
Lab to accompany GEOL 101 lecture. Corequisite: GEOL 101. (F,S)

GERMAN (GER)

UNDERGRADUATE COURSES

GER 101 Beginning Spoken German I 4(3-2)
Pronunciation and grammar with oral-aural training. Easy reading and conversation. (F)

GER 102 Beginning Spoken German II 4(3-2)
Students are placed by the department. Practice in oral, aural, reading and writing experiences. Prerequisite: GER 101 or equivalent. (F,S)

GER 201 Intermediate German I 5(5-0)
Review and expansion of first-year grammar. Compositions, reading and discussion of contemporary German life. Prerequisite: GER 102 or equivalent. (*)

GER 202 Intermediate German II 5(5-0)
Prerequisite: GER 201 or equivalent. (*)

GER 301 Advanced German Grammar I 3(3-0)
Prerequisite: GER 202 or permission of instructor. (*)

GER 302 Advanced German Grammar II 3(3-0)
Prerequisite: GER 202 or permission of instructor. (*)

GER 381 German Civilization I 3(3-0)
German geography, culture and history from the beginning to the present. Prerequisite: GER 202 or permission of instructor. (*)

GER 382 German Civilization II 3(3-0)
Prerequisite: GER 202 or permission of instructor. (*)

HISTORY (HIST)

UNDERGRADUATE COURSES

HIST 101 World Civilization to 1100 3(3-0)
Cultural and political growth of civilizations from prehistoric times to 1100; emphasis on the unique contributions of independent cultures to world history. (F,S)

HIST 102 World Civilization From 1100 to 1800 3(3-0)
Cultural and political interaction of civilizations from 1100 to 1800; emphasis on common problems and goals of mankind. (S)

HIST 103 World Civilization Since 1800 3(3-0)
Cultural and political interaction of civilization since 1800; emphasis on conflict and resolution. (F,S)

HIST 136 (CS 136) The Southwest United States 3(3-0)
This course traces the culture and historical development of the southwestern United States, including cultural contributions of the American Indian and Hispanic peoples. (*)

HIST 201 U.S. History I 3(3-0)
United States history from founding of North American colonies to 1877 Reconstruction era. (*)

HIST 202 U.S. History II 3(3-0)
United States from 1877 Reconstruction era to contemporary era. (*)

HIST 211 Colorado History 3(3-0)
History, government and economic factors important to the settlement and development of Colorado. (S)

HIST 246 (CS 246) History of Mexico 3(3-0)
This course surveys the major political, economic, social and cultural developments of Mexico from pre-Columbian times to the present. (*)-*

HIST 291 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

HIST 295 Independent Study (1-3 VAR)
An individualized program of study designed by ranked, full-time History professor for a promising student. Prerequisite: Permission of Instructor. (*)

HIST 300 Historiography 3(3-0)
Enhances student knowledge of historical profession through developing historical research skills. (F,S)

HIST 301 America to 1787 3(3-0)
History of America during the colonial and Revolutionary eras. (*)

HIST 302 America, 1787-1877 3(3-0)
History of the United States during the early national and Civil War eras. (*)

HIST 303 America, 1877-1945 3(3-0)
History of United States from the Gilded Age to 1945. (*)

HIST 304 America, 1945-Present 3(3-0)
History of the United States from 1945 to the present. (*)

HIST 311 History of United States Foreign Policy 3(3-0)
United States foreign policy from the founding of the republic to the present. (*)

HIST 362 History of Russia 3(3-0)
Cultural and political development of Russian and Soviet history from 800 to the present; emphasis on impact of the Bolshevik Revolution on history. (*)

HIST 372 History of Modern China 3(3-0)
Cultural and political developments in modern China; emphasis on the interplay between Chinese tradition and western challenges. (*)

HIST 395 Independent Study (1-3 VAR)
An individualized program of study designed by a ranked full-time Historian for a promising student who has demonstrated ability in a regular History class. Prerequisite: Previous work in History and permission of Instructor. (*)

HIST 411 American Labor History 3(3-0)
History of Labor in the United States. Examines history of American workers, the unions they organized and considers the changing nature of work. (*)

HIST 413 American West 3(3-0)
Role of the individual and the group in the development of the frontier into the 20th century. Prerequisite: permission of instructor. (*)

HIST 415 Historical Biography 3(3-0)
Introduction to biography as a form of history. Students select, study and critique the lives of great men and women. (*)

HIST 427 (WS 427) Women in Industrializing Europe 3(3-0)
Changes and continuities for European women from the sixteenth century to the present, including work, family, sexuality, and movements for social and political change. Prerequisites: HIST 103 or permission of instructor. (*)

HIST 446 History of Empires (500-1500) 3(3-0)
Survey of the rise of great empires of the world, including Arab, Gupta, T'ang, Sung, and Yuan empires to 1500. (*)

HIST 447 History of the Decline of Empires (1500-Present) 3(3-0)
Survey of the decline of empires and the impact of European conquest in all areas of the world. WWI and WWII are included in this course. (*)

HIST 457 Early Modern Europe 3(3-0)
Important events, movements, and social changes of the early modern period of European history, including the Renaissance, Reformation, Absolutism, the Scientific Revolution, and the Enlightenment. (F)

HIST 458 Modern Europe 3(3-0)
Important changes and continuities in recent European history, including the effects of the Industrial Revolution, Victorian culture and society, science and technology, rivalries, and fascism. (S)

HIST 489 (CS 489) Borderlands 3(3-0)
History of the Mexican cession to the United States from its Indian and Hispanic origins to the present. Prerequisite: CS/HIST 136 or HIST 201 or HIST 202 or HIST 211, or permission of instructor. (*)

HIST 491 Special Topics (1-3 VAR)
Prerequisites: junior or senior status with adequate preparation and permission of instructor. (*)

HIST 493 Seminar 3(3-0)
Seminar devoted to special topics and issues in history; emphasis on research paper. Prerequisites: HIST 300 or permission of instructor. (S)

HIST 495 Independent Study (1-3 VAR)
An individualized program of study designed by a ranked full-time Historian for a History major or minor. Prerequisite: History major or minor and permission of Instructor. (*)

HIST 498 Internship (3-6 VAR)
For advanced students. Practical experience through internship with museums, libraries with historical collections, and other community organizations. Prerequisites: junior or senior standing and departmental permission. (*)

GRADUATE COURSES

HIST 513 Frontier America 3(3-0)
Analysis of the role of the frontier in the development of America. Prerequisite: graduate standing. (*)

HIST 558 Modern Europe 3(3-0)
Important changes and controversies in recent European history, including the effects of the Industrial Revolution, Victorian culture and society, science and technology, rivalries, and fascism. Prerequisite: graduate standing. (S)

HIST 589 Borderlands 3(3-0)
History of the Mexican cession to the United States from its Indian and Hispanic origin to the present. Prerequisite: graduate standing. (*)

HIST 591 Special Topics (1-3 VAR) (*)

HIST 593 Seminar 3(3-0)
Seminar devoted to specific areas and issues in history; emphasis on research paper. Prerequisite: graduate standing (*)

HONORS (HONOR)

UNDERGRADUATE COURSES

HONOR 193 Introduction to Honors 1(1-0)
The purpose of this course is to introduce honors students to the Honors Program. Additionally, there is emphasis on developing effective and efficient study habits based on established learning principles. Prerequisite: director's permission. (F)

HONOR 210 Honors Life Science and Technology 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with the aesthetic, cultural, historical, sociological and scientific aspects of life science and technology. (S)

HONOR 220 Honors Health Issues 3(3-0)
A thematic, interdisciplinary small-group seminar dealing with the aesthetic, cultural, historical, sociological, scientific and technological aspects of health issues. (S)

HONOR 230 Honors International & Economic Issues 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with aesthetic, cultural, historical, sociological, scientific and technological aspects of international and economic issues. Prerequisite: three hours previous honors work. (*)

HONOR 240 Honors Physical Science 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with the aesthetic, cultural, historical, sociological, scientific and technological aspects of physical science. (F)

HONOR 250 Honors Literary Themes 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with the aesthetic, cultural, historical, sociological and scientific aspects of literary themes. (S)

HONOR 291 Special Topics (1-3 VAR) (*)

HONOR 490 Special Projects 2(2-0)
Prerequisite: three hours of previous honors work. (*)

HONOR 491 Special Topics (1-3 VAR) (*)

HONOR 493 Honors Senior Seminar 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with scientific, technological, sociological, cultural, aesthetic, ethical, and historical aspects of issues of education and research. Guest speakers and visits to museums, exhibits and cultural events related to the course's theme. Senior honors project will be introduced. Prerequisite: Three hours previous honors work. (*)

INTERDISCIPLINARY STUDIES (IS)

UNDERGRADUATE COURSES

IS 101 Academic & Career Exploration 1(1-0)
Provides undeclared/declared students who are still deciding on their majors an opportunity to assess their abilities, interests and goals while investigating the university's degree programs. (F)

IS 151 Introduction to Academic Life 3(3-0)
To provide an opportunity for students to learn and adopt methods to be successful in college. Critical thinking, writing and time management are emphasized. (F,S)

IS 160 Principles of Leadership 3(3-0)
Study of leadership theories and principles. The course emphasizes components of leadership, gender, ethnic diversity in leadership styles, organizational forms, and personal capacity for leadership. Prerequisite: Acceptance into President's Leadership Program. (F)

IS 251 Student Leadership Development 2(2-0)
Create an opportunity for students to define, learn, adopt, and integrate within themselves the "purpose of leadership". (S)

IS 255 Residence Hall Advising 1(1-0)
Will teach student development theory, history of residence life, communication skills and assertiveness training which will enhance the quality of student leaders and resident advisors. (S)

IS 260 Leadership in Service Organizations 3(2-2)
Lecture/experiential course outlining leadership practices through service learning in community settings. Open to PLP students only. Prerequisites: IS 160, enrollment in PLP. (F)

IS 291 Special Topics (1-3 VAR)
Special topics are offered to students in areas where regular course offerings are not available. (*)

IS 350 Orientation Leadership Training 3(3-0)
Course emphasis is to develop a student's leadership and communication skills, enhance knowledge and understanding of university policies and procedures and campus resources and services. (S)

IS 355 Becoming an Effective Tutor 3(2-2)
Concepts and techniques of effective tutoring, including issues such as communication, rapport, confidentiality, learning styles, disabilities, and general study skills. Limited hands-on experience required.

IS 360 Working with Experienced Leaders 3(1-4)
Lecture/practicum course assigning students to leader mentorship in public, private, or government sector. Leadership issues and challenges in a structured, but applied setting. Prerequisites: IS 260, enrollment in PLP. (F)

IS 460 Applied Leadership 3(3-0)
Leadership in action course applying needs assessments, analysis, strategy · development, implementation and evaluation to a team project in private, public or nonprofit sector. PLP required. Prerequisites: IS 360, enrollment in PLP. (F)

ITALIAN (ITL)

UNDERGRADUATE COURSES

ITL 101 Introduction to Italian I 4(3-2)
Pronunciation and grammar with oral-aural training. Easy reading and conversation. (F,S)

ITL 102 Beginning Spoken Italian II 4(3-2)
Students are placed by the department. Practice in oral, aural, reading and writing experiences. Prerequisite: ITL 101 or equivalent. (F,S)

ITL 201 Intermediate Italian I 4(3-2)
Reading and conversation in Italian, review of grammar, study of idioms, theme writing in Italian. Prerequisite: ITL 102 or equivalent. (F)

ITL 202 Intermediate Italian II 4(3-2)
Prerequisite: ITL 201 or equivalent. (S)

ITL 301 Advanced Italian Grammar I 3(3-0)
Linguistic analysis, vocabulary building and composition. Prerequisite: ITL 202 or permission of instructor. (S)

ITL 302 Advanced Italian Grammar II 3(3-0)
Linguistic analysis, vocabulary building and composition. Prerequisite: ITL 202 or permission of instructor. (S)

ITL 381 Italian Civilization I 3(3-0)
Italian geography, culture and history from the Roman Empire to the present. Prerequisite: ITL 202 or permission of instructor. (F)

ITL 382 Italian Civilization II 3(3-0)
Prerequisite: ITL 202 or permission of instructor. (S)

ITL 387 Intensive Italian Study Abroad (6-12 VAR)
Study of Italian in an immersion setting abroad preparing the student to become fluent in the language through the study of grammar, civilization and culture. Prerequisite: permission of instructor; ITL 201. (*)

ITL 494 Field Experience (1-7 VAR)
Communication, lectures by writers, artists, political leaders and specialists. Visits to museums, attendance at movies, theaters and excursions. Prerequisite: 2 years of college Italian. (*)

ITL 495 Independent Study (1-3 VAR)
May be repeated for credit with approval of major adviser. (*)

MANAGEMENT (MGMT)

UNDERGRADUATE COURSES

MGMT 201 Principles of Management 3(3-0)
Managerial process of planning, organizing, leading, decision-making, and controlling. Modern management techniques will be emphasized. Prerequisite: BUSAD 101 or permission of instructor for non-business majors. (F,S,SS)

MGMT 301 Organizational Behavior 3(3-0)
Team-work, individual and group behavior, motivation, work design, communication, decision-making, leadership, and organizational culture. Prerequisites: MGMT 201, junior standing. (F,S,SS)

MGMT 311 Operations and Quality Management 3(3-0)
Managerial perspective of the operations and quality functions, use of analytical tools to solve operations and quality problems. Prerequisites: MATH 220 or BUSAD 265, or for non-business majors MATH 156. (F,S)

MGMT 318 Human Resource Management 3(3-0)
An examination of the human resource functions of planning, selection and recruitment; compensation; training and development; employee and labor relations; and safety and health. Prerequisite: MGMT 201. (*)

MGMT 325 Real Estate 3(3-0)
Introduction to home ownership, real estate industry, markets, legal aspects of home ownership, appraisal, investment, tax benefits, titles, deeds, purchase contracts, listing agreements. (*)

MGMT 349 Management of Service Businesses 3(3-0)
Management of service organizations, with emphasis on the health delivery, tourism, resort, and hospitality industries. Prerequisite: MGMT 201 or permission of instructor for non-business majors. (*)

MGMT 362 Purchasing and Materials Management 3(3-0)
Strategies and tactical methods, opportunities and problems associated with the flow of materials in an organization will be covered. Prerequisite: MGMT 311 (*)

MGMT 365 Management Information Systems 3(3-0)
Analysis and design of computer-based management information systems to satisfy needs of functional areas of organizations such as finance, marketing, accounting, engineering, production and operations management. Prerequisite: MGMT 201. (*)

MGMT 368 Project Management 3(3-0)
Project planning, control, management and evaluation. Use of project planning software. Prerequisite: MGMT 201. (F,S)

MGMT 370 Operations Planning and Control 3(3-0)
Basic concepts and techniques of planning, executing and controlling of production rates and inventory levels to achieve customer satisfaction at minimum cost. Prerequisite: MGMT 311. (*)

MGMT 375 Management Science 3(3-0)
Examination of deterministic tools in managerial problem solving; mathematical programming methods, linear, nonlinear, network, and inventory problems. Computer solutions of structured business problems. Prerequisite: MGMT 311 (*)

MGMT 405 Managing Diverse Organizational Forms 3(3-0)
Management of service, public and private non-profit organizations. Examination of financing, marketing, operations, and human resource management in these organizations. Prerequisite: MGMT 301. (F,S)

MGMT 410 Labor Management Relations 3(3-0)
Federal and state legislation and executive orders governing the employer-employee relationship; legal rights of organizations and collective bargaining. Prerequisite: MGMT 318 (*)

MGMT 414 Entrepreneurship 3(3-0)
The environment, management, marketing, accounting and legal considerations facing the small business manager and owner. Prerequisites: ACCTG 202, MGMT 201 and MKTG 340, or permission of instructor. (*)

MGMT 415 Performance Enhancement - Human Resource Development 3(3-0)
At the micro level, a focus on individuals, acquisition of skills, and career development. At the macro level, a focus on organizational development using system theory. Prerequisite: MGMT 301. (*)

MGMT 420 Compensation Management 3(3-0)
Concepts and practices related to direct and indirect compensation. Prerequisite: MGMT 201. (*)

MGMT 460 Operations Strategy 3(3-0)
Examination of recent developments in the strategy of operations in the manufacturing and service sectors involving technological policy, new process development, and new product introduction. Prerequisite: MGMT 311. (*)

MGMT 468 Total Quality Management 3(3-0)
Concepts and techniques of quality improvement processes. Defining quality in customer satisfaction terms and improving quality of products and service through modern techniques. Prerequisite: MGMT 311. (*)

MGMT 475 International Management 3(3-0)
An analysis of management opportunities and challenges in the global environment and the evaluation and formulation of strategies of firms operating and expanding internationally. Prerequisites: MGMT 301 and 311. (F,S,SS)

MGMT 481 Strategy and the Business Experience 4(3-2)
Integration of business disciplines; explore the formulation and deployment of strategy using simulation. Team-based, project oriented consulting in an organization to resolve actual business problems. Prerequisite; senior standing and completion of all core courses. (F,S,SS)

MGMT 484 Senior Studies 3(3-0)
A discipline-oriented integration of prior course work into a special project, research paper and/or activity that demonstrates proficiency in the major. Prerequisites: senior standing in the School of Business and completion of all core courses. (*)

MGMT 485 Management Policy and Strategy 3(3-0)
Integration of the business core disciplines to explore ways that strategy is formed in contemporary business organizations. Case method used extensively. Prerequisites: senior standing in the School of Business and completion of all core courses. (*)

MGMT 489 Advanced Principles of Management 1(1-0)
A review of management history, current philosophies, and organizational processes. Takes an in-depth look at management functions and roles, and identifies skills necessary to manage successfully. Prerequisite: per-mission of MBA director. (*)

MGMT 490 Special Projects (1-6 VAR) (*)

MGMT 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

MGMT 495 Independent Study (1-3 VAR)
Prerequisites: senior standing in School of Business and permission of department chair. (*)

MGMT 498 Internship (1-6 VAR)
Supervised field work in selected business, social and governmental organizations; supplemented by written reports. (S/U grades) Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

MGMT 511 Production/Operations Management 3(3-0)
Managerial perspective of operations functions, under-standing of analytical tools to solve operations problems, applied operations issues, and develop decision-making skills. Prerequisite: graduate standing. (*)

MGMT 520 Management of Organizational Behavior 3(3-0)
Ideas and concepts for increasing effectiveness in organizations. Major topics include personality, motivation, leadership, communication, group dynamics, change and conflict, and contingencies of work unit design. Prerequisite: graduate standing. (*)

MGMT 521 Theories of Organizational Design 3(3-0)
Identification of external environments faced by organizations and theories of organizational design that enable organizations to operate more effectively within their respective environments. Prerequisite: graduate standing. (*)

MGMT 523 Management of Non-Profit Organizations 3(3-0)
Examines differences among public, charitable, and private organizations regarding their external environments, goals, strategies, administrative procedures, operations, and human resource management. Prerequisite: graduate standing. (*)

MGMT 565 Management Information Systems 3(3-0)
The development of a framework for understanding and analyzing use of information by organizations through computer-based systems and this framework's potential for enhancing effectiveness of managerial decision making. Prerequisite: graduate standing. (*)

MGMT 575 International Management 3(3-0)
An advanced analysis of management opportunities and challenges in the global environment and the evaluation and formulation of strategies of firms operating and expanding internationally. Prerequisites: MGMT 520 and BUSAD 502. (F,S,SS)

MGMT 585 Management Policy and Strategy 3(3-0)
Critical analysis of the policy/strategy field. This course integrates the business core disciplines to explore ways that strategy is formed in contemporary business organizations. Case Method used extensively. Prerequisite: graduate standing and completion of core courses. (*)

MGMT 591 Special Topics 3(3-0) (*)

MGMT 592 Research (1-6 VAR)
The student will work under the close supervision of a graduate faculty member in basic or applied research resulting in a report of high academic quality. (IP and S/U grading) (*)

MGMT 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: graduate standing. (*)

MGMT 598 Internship 3(3-0)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: Graduate standing. (S/U grading) (*)

MGMT 599 Thesis Research (1-6 VAR) (*)

MARKETING (MKTG)

UNDERGRADUATE COURSES

MKTG 340 Principles of Marketing 3(3-0)
Analytical survey of problems encountered in distributing goods and services from a marketing-management approach with emphasis on the role of the consumer and the social responsibility of the marketer. (F,S)

MKTG 341 Sales Force Management 3(3-0)
Managing a sales force including recruiting, selection, training, compensation, supervision, stimulation and sales planning. Computer simulation used to do forecasting, budgeting, territory allocation, sales analysis and control. Prerequisite: MKTG 340. (*)

MKTG 342 Promotional Strategy 3(3-0)
Principles, concepts and problems involved in development and management of advertising, personal selling, public relations and sales promotion programs, activities in the global economy. Prerequisite: MKTG 340. (*)

MKTG 343 Personal Selling 3(3-0)
persuasive personal communications in selling consumer and industrial products and services. Prerequisite: MKTG 340. (*)

MKTG 345 Retail Management 3(3-0)
Issues in buying, maintaining inventory, displaying, designing store layouts, promoting, providing services and general merchandising of products for improving retail profitability. Prerequisite: MKTG 340. (*)

MKTG 348 Consumer Behavior 3(3-0)
Survey of contributions of behavioral sciences to understanding and prediction of consumer behavior in the decision-making process. Prerequisite: MKTG 340. (*)

MKTG 349 Marketing Service Businesses 3(3-0)
Marketing of service organizations, with emphasis on the health delivery, tourism, resort, and hospitality industries. Prerequisite: MKTG 340 or permission of instructor for non-business majors. (*)

MKTG 350 International Marketing 3(3-0)
Effects of culture, political and legal structures on marketing. Planning for international products, services, promotion, pricing, distribution and impact of trade groups. Prerequisite: MKTG 340. (*)

MKTG 440 Marketing Research 3(3-0)
Fundamental techniques. Practical experience in research methodology: planning an investigation, questionnaires, sampling, interpretation of results, report preparation. Prerequisites: MKTG 340 and BUSAD 265. (*)

MKTG 441 Marketing Strategies 3(3-0)
Detailed consideration of process of formulating and implementing strategies in marketing. Major emphasis on markets, channels of distribution, and product analysis. Prerequisites: MKTG 340, 440, second semester seniors. (*)

MKTG 489 Advanced Principles of Marketing 1(1-0)
The importance of the marketing mix activities in an organization. Prerequisite: permission of MBA director. (*)

MKTG 490 Special Projects (1-6 VAR) (*)

MKTG 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

MKTG 495 Independent Study (1-3 VAR)
Prerequisites: senior standing in School of Business and permission of department chair. (*)

MKTG 498 Internship (1-6 VAR)
Supervised field work in selected business, social and governmental organizations; supplemented by written reports. (S/U grades) Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

MKTG 540 Marketing Management 3(3-0)
Emphasizes an understanding of market behavior, coordination and implementation of the marketing mix with other managerial decisions, and the integration of theory through use of cases. Prerequisite: graduate standing. (*)

MKTG 541 Strategic Marketing 3(3-0)
A thorough analysis of decision making in strategic marketing, in product and service industries, profit and non-profit institutions, using case analysis and readings. Prerequisite: graduate standing. (F)

MKTG 575 International Marketing 3(3-0)
An advanced analysis of marketing opportunities and challenges in the global environment and the evaluation and formulation of strategies of firms operating and expanding internationally. Prerequisite: MKTG 540. (F,S,SS)

MKTG 591 Special Topics 3(3-0) (*)

MKTG 592 Research (1-6 VAR)
The student will work under the close supervision of a graduate faculty member in basic or applied research resulting in a thesis or report of high academic quality. (IP and S/U grading) (F,S,SS)

MKTG 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: graduate standing. (F,S,SS)

MKTG 598 Internship 3(3-0)
Supervised field work in selected public, private government organizations, supplemented by written reports. Prerequisite: Graduate standing. (S/U grading) (*)

MKTG 599 Thesis Research (1-6 VAR) (*)

MASS COMMUNICATIONS AND CENTER FOR NEW MEDIA (MCCNM)

UNDERGRADUATE COURSES

MCCNM 101 Media and Society 3(3-0)
The development, functions and effects of the mass media in relation to the individual, society and the global community. (F,S,SS)

MCCNM 102 Introduction to Electronic Media 3(3-0)
The course focuses upon the history, background, and technologies of the electronic media. (F,S)

MCCNM 132 Website Design and Development 3(2-2)
Introduction to the creation and design of WWW pages, software applications, protocols and standards for implementing and managing WWW sites. Prerequisites: BUSAD 160, CIS 101, MCCNM 101, or permission of instructor. (F)

MCCNM 141 Digital Audio Production and Operations 3(2-2)
Concepts, skills and technical processes needed for digital recording and signal processing of aural communication. Prerequisite: MCCNM 101. (F,S)

MCCNM 142 Digital Video Production and Operations 3(2-2)
Concepts, skills and technical facilities involved in production of television programs. Emphasis on the understanding of the technical equipment used in program broadcasting. Prerequisite: MCCNM 101. (F,S) Fee required.

MCCNM 150 Regulation of Electronic Media 3(3-0)
The historical and legal structures of radio, television, cable, and new technologies of mass communications are explored with emphasis upon inventors, innovation, and social development. Prerequisite: MCCNM 101. (F,S)

MCCNM 201 News Writing 3(3-0)
Instruction and practice in basic news writing including the public's right to know, newsworthiness, and writing style. Required of all majors and minors. Word processing skills required. Pre-requisites: ENG 101 and 102. (F,S, SS)

MCCNM 202 Feature Writing 3(3-0)
Reporting campus events via interpretive articles, news features, straight features, seasonal stories and in-depth articles. Prerequisite: MCCNM 201. (F,S)

MCCNM 211 Desktop Publishing 3(1-4)
To develop computer publishing and design skills with varied software packages and within PC and Mac environments, preparing students for publication design and editing careers. Prerequisite: word processing literacy. (F,S,SS) Fee required.

MCCNM 216 Advertising 3(3-0)
Principles of advertising on local and national levels for news-papers, magazines, radio and television. (F,S)

MCCNM 222 Broadcast News Writing 3(3-0)
Preparation of copy for radio/television news reports, interviews and commentary. (F,S)

MCCNM 231 Digital Media Production 3(2-2)
The theory and practice of digital pre-production and post production using the single and multiple camera schemes. (F)

MCCNM 233 Script Writing 3(2-2)
Techniques, styles, formats, treatments, outlines, and scenarios for script forms used in the electronic media are covered with emphasis upon preparing scripts for production. Prerequisite: MCCNM 201. (F,S)

MCCNM 235 (WS 235) Women and Media 3(3-0)
The historical and cultural implications of the mass media's portrayal of women and the extent of their media participation from colonial to contemporary times. (*)

MCCNM 238 Multimedia Applications 3(2-2)
Introduction to the principles and applications of digital multimedia with special emphasis on animation, digital audio and video as well as interface design. Prerequisite: MCCNM 132. (F)

MCCNM 250 Media Lab (1-3 VAR)
A laboratory course for students involved in university publications and campus broadcast operations. May be repeated for up to four credits. Prerequisite: permission of instructor. (F,S,SS)

MCCNM 251 Sports Writing and Statistics 3(2-3)
Study and practical application of sports writing and statistics; emphasis on press box experience at intercollegiate athletic events. Repeatable once. Pre-requisites: MCCNM 201 and 202. (*)

MCCNM 265 History of Journalism 3(3-0)
History of the press in America from colonial times to the present day; political and economic impact of newspapers and magazines during the 19th and 20th centuries. (F,S)

MCCNM 280 Public Relations 3(3-0)
Historical, theoretical and practical approach to contemporary public relations focusing on the public relations process, communication strategies, public, and organizational distinctions. (F,S)

MCCNM 301 Editorial Writing 3(3-0)
Study of editorial page management and policy, with emphasis on preparation of editorials, columns and critical reviews. Prerequisites: MCCNM 201 and 202. (*)

MCCNM 302 Advertising Writing 3(3-0)
Copy writing essentials and formats for print, broadcast and direct mail advertising. Emphasis on developing writing techniques for practical application in both retail and product advertising. Prerequisite: MCCNM 216 or permission of instructor. (S)

MCCNM 305 News Reporting 3(3-0)
Course covers the principles and practices, skills and ethics of professional beat and general assignment news reporting – specifically in-depth interviewing and other news gathering techniques. Prerequisite: MCCNM 201 and 202. (F,E)

MCCNM 310 Advanced Desktop Publishing 3(2-2)
Advanced study of electronic publishing and design, emphasizing process color, electronic document creation, on-line publishing. Prepares students for advertising, publication design, production and editing careers. Prerequisite: MCCNM 211 or permission of instructor. Fee required. (S)

MCCNM 311 Copy Editing and Makeup 3(3-0)
News evaluation, copy reading, rewriting, headline writing, page makeup and similar duties of the newspaper copy editor. Prerequisites: MCCNM 201 and 202. (F)

MCCNM 317 Advertising Strategy 3(3-0)
Seminar emphasizing tactics and strategies of advertising planning, utilizing media techniques, marketing posture and creative media buying. Prerequisites: MCCNM 216 and 316. (S)

MCCNM 319 Direct Advertising 3(3-0)
An advanced course stressing the philosophy, objectives, content and development of direct response advertising, particularly direct mail and computer-generated messages. Prerequisite: MCCNM 216. (F)

MCCNM 320 Broadcast Station Programming 3(3-0)
Program types used on broadcast stations; analysis of network structure and local station programs; ethical requirements in programming. Prerequisites: MCCNM 141, 142, and 222. (*)

MCCNM 330 (WS 330) Gender and Film 3(3-0)
A discussion course which examines gender roles in theatrical and documentary film while considering the perspective of producers, actors and spectators and salient film theories. Prerequisite: upper division standing in MCCNM or Women's Studies. (*)

MCCNM 336 Interactive Media and Interface Design 3(3-0)
An overview of interactive media systems and the computer applications used to create interactive media content. Prerequisite: MCCNM 101, CIS 101 or 110. (F)

MCCNM 338 Global Communications 3(3-0)
The student will explore the technological concepts underlying modern global communications systems and the role that those technologies and systems play in our global community. Prerequisite: New Media Tract or permission of instructor. (S)

MCCNM 350 Advanced Media Lab (1-3 VAR)
An advanced laboratory course for students involved in university publications and campus broadcast operations. May be repeated for up to 8 credits. Prerequisites: junior or senior standing; permission of instructor. (F,S,SS)

MCCNM 370 (SW 370) Non-Profit Organizations and Communication 3(3-0)
A seminar course using cooperative teaching that integrates theory and practice to examine the basic elements of nonprofit organizations from economic, political, and social perspectives. Prerequisite: sophomore standing. (S)

MCCNM 382 Digital Media Post Production 3(2-2)
The theory and practice of digital post production using nonlinear editing. Students will use their production skills in a variety of community based projects. Prerequisite: MCCNM 142. (S)

MCCNM 401 Photographic Procedures 4(3-2)
Practical course in pictorial reporting; emphasis on spot news features, picture stories and photographic essays. Prerequisite: junior or senior standing. (S)

MCCNM 402 Photojournalism 4(3-2)
Practical course in pictorial reporting; emphasis on spot news feature, picture stories and photographic essays. Prerequisite: MCCNM 401 (*)

MCCNM 411 Media Law 3(3-0)
Ethical and legal factors of mass communications related to the structure and substance of laws at federal, state and local levels, including freedoms, restraints and contemporary issues. Prerequisite: junior or senior standing. (F,S)

MCCNM 415 Theories of Mass Communications 3(3-0)
Application of information theories to mass communication problems. Nature of the communication process in groups and between mass media and audiences. Contribution of theoretical concepts to solving specific problems. Prerequisite: senior standing or permission of instructor. (*)

MCCNM 421 Public Relations Case Problems 3(3-0)
Emphasis on analyzing public relations scenarios involving non-profit, private sector and government organizations and their impact on such publics as employees, consumers, voters, and volunteers. Prerequisites: MCCNM 201, 202 and 280. (F)

MCCNM 422 Writing for Public Relations 3(3-0)
A specialized course in persuasive writing techniques in different formats. Emphasis is on print and electronic news releases, public service announcements, brochures, news-letters, speeches, and proclamations. Prerequisite: MCCNM 201 and MCCNM 280. (S)

MCCNM 425 Audience Research Methodology 3(3-0)
Generalized research methodology course. Effective and appropriate research tools to define and describe various publics contained within the mass audience. Emphasis on sampling practices, encoding and interpretation of results. Pragmatic task activities via Nielson, Arbitron, SRDS, content analysis and related data sources. (F,S)

MCCNM 426 TV Documentary Production 5(3-4)
Actual experience in planning, scripting and producing documentary video production on locations throughout southeastern Colorado for broadcast and public service agencies. Prerequisite: MCCNM 326. Fee required. (F)

MCCNM 430 Integrated Communications Campaigns 3(3-0)
The course examines the organization, structure, components and preparation of an integrated communication campaign focusing on advertising, public relation, sales promotion and direct response. Prerequisite: MCCNM 216 and MCCNM 280. (F)

MCCNM 440 (ENG 440) Magazine Writing 3(3-0)
Instruction and practice in writing nonfiction magazine articles, with emphasis on story research and market selection. Prerequisites: MCCNM 201 and 202. (*)

MCCNM 445 Reporting Public Affairs 3(3-0)
Instruction and practice in reporting important issues in areas such as crime, courts, local and state government. Prerequisites: MCCNM 201 and 202. (S,O)

MCCNM 450 Film Criticism in the Media 3(3-0)
The role and function of the film critic in television and print journalism, with emphasis on writing the critical review. Prerequisite: senior standing. (S)

MCCNM 490 Special Projects 3(0-3)
Individualized instruction within a special interest area, under supervision of a member of the department. Repeatable once. Prerequisite: junior or senior standing, or permission of instructor. (F,S,SS)

MCCNM 491 Special Topics (1-3 VAR)
Prerequisite: junior or senior standing, or permission of instructor. (F,S)

MCCNM 493 Seminar 3(3-0)
Seminar devoted to special problems in mass media; emphasis on interrelationships of media, understanding media, and the role of criticism. Prerequisite: senior standing. (F,S)

MCCNM 494 Field Experience (3-10 VAR)
A semester-long internship. Student performs the professional duties required by the cooperating commercial mass medium, business or public service agency. May be taken for a maximum of 8 hours. Prerequisite: junior or senior standing, minimum of 30 hours in major, or permission of program chair. (F,S,SS)

MCCNM 495 Independent Study 2(0-2)
Prerequisite: junior or senior standing, or permission of instructor. (F,S)

GRADUATE COURSE

MCCNM 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

MATHEMATICS (MATH)

UNDERGRADUATE COURSES

A grade of C or better is required for prerequisite courses.

MATH 098 Introductory Algebra 4(4-0)
Review of elementary algebraic operations including factoring and operations with fractions. Introduction to graphing, including graphs of lines. Solutions to linear and quadratic equations. This course does not count toward graduation. Prerequisite: Satisfactory placement exam score. (S/U grading). (F,S,SS)

MATH 099 Intermediate Algebra 4(4-0)
A course designed to broaden and deepen algebraic problem-solving skills. Topics include systems of equations, exponents, radicals, complex numbers, quadratic equations, factoring polynomials, function notation and graphs (S/U grading). This course does not count toward graduation. Prerequisite: Satisfactory placement exam score. One year of high school algebra. (F,S,SS)

MATH 109 Mathematical Explorations 3(3-0)
Emphasis on quantitative reasoning and problem solving. Topics chosen from logic, sets, algebra, linear programming, probability, statistics, number theory, geometry, and counting techniques. Prerequisites: Satisfactory placement exam score. MATH 099 or one year of high school algebra or equivalent. (F,S,SS)

MATH 121 College Algebra 4(4-0)
Solutions of algebraic equations, graphs of rational functions, exponential and logarithmic functions, systems of equations, matrices, and determinants. Prerequisites: Satisfactory placement exam score. Math 099 or two years of high school algebra or equivalent. (F,S,SS)

MATH 122 College Trigonometry 3(3-0)
Trigonometric and circular functions, identities, inverse functions, vectors, complex numbers. Prerequisites: MATH 121 or equivalent. (*)

MATH 124 Pre-calculus Math 5(5-0)
Polynomial, rational, exponential and logarithmic functions; solution of systems of equations; trigonometric, circular and certain special functions. Prerequisites: Satisfactory placement exam score. Two years of high school algebra or equivalent. (F,S)

MATH 126 Calculus and Analytic Geometry I 5(5-0)
Introduction to limits, continuity, differentiation and integration with selected applications. Prerequisites: Satisfactory placement exam score. MATH 124 or equivalent. (F,S)

MATH 131 Algebra/Trigonometry for Engineering Technology I 4(4-0)
Integrated sequence (131-132) covering topics in algebra, trigonometry, and analytic geometry, with engineering applications. Prerequisites: Satisfactory placement exam score. Two years of high school algebra or equivalent. (F)

MATH 132 Algebra/Trigonometry for Engineering Technology II 4(4-0)
Continuation of MATH 131. Prerequisites: Satisfactory placement exam score. MATH 131. (S)

MATH 156 Introduction to Statistics 3(3-0)
Introduction to data analysis. Binomial and normal models. Sample statistics, confidence intervals, hypothesis tests, linear regression and correlation, and chisquare tests. Prerequisites: Satisfactory placement exam score. Math 099 or one year of high school algebra or equivalent. (F,S,SS)

MATH 207 Matrix and Vector Algebra with Applications 2(2-0)
Systems of equations, matrix representation of systems, solution of systems, inverses, determinants, and Cramer's Rule. Vectors, scalar and cross-products, applications to two- and three- dimensional geometry. Prerequisite: MATH 124 or equivalent. Corequisite: Majors and minors should take this course concurrently with MATH 224 or MATH 325. (F,S)

MATH 209 Symmetry 3(3-0)
Liberal arts course exploring the mathematical world of symmetry. Topics include isometrics, Euclidean geometry, tiling theory, group theory, and fractals. Prerequisite: Satisfactory placement exam score. One year of high school geometry or permission of instructor. (*)

MATH 220 Quantitative Analysis for Business 4(4-0)
An introduction to quantitative methods required for business studies, includes a brief introduction to the Calculus. Prerequisites: Satisfactory placement exam score. MATH 121 or equivalent. (F,S,SS)

MATH 221 Applied Calculus: An Intuitive Approach 4(4-0)
Non-rigorous introduction to calculus with emphasis on applications and modeling in the life sciences, social and behavioral sciences and business. Prerequisites: Satisfactory placement exam score. MATH 121 or equivalent. (F,S)

MATH 224 Calculus and Analytic Geometry II 5(5-0)
Differentiation and integration of trigonometric, logarithmic, and other transcendental functions. Infinite sequences and series, parametric representation of curves, and selected applications. Prerequisite: MATH 126. Corequisite: Majors and minors should take this course concurrently with MATH 207. (F,S)

MATH 231 Calculus for Engineering Technology I 3(3-0)
Integrated sequence (231-232) covering topics in differential and integral calculus with emphasis on engineering applications. Prerequisites: Satisfactory placement exam score. MATH 132, 124, or equivalent. (F)

MATH 232 Calculus for Engineering Technology II 3(3-0)
Continuation of MATH 231. Prerequisite: MATH 231. (S)

MATH 256 Probability for Engineers and Scientists 3(3-0)
A calculus-based introduction to applied probability and stochastic processes. An intuitive study of random variables, special distributions, expectations, and limit theorems. Prerequisite: MATH 224 or permission of instructor. (S)

MATH 291 Special Topics (1-3 VAR)
Prerequisites: permission of instructor and approval of the department chair. (F,S)

MATH 307 Introduction to Linear Algebra 4(4-0)
A rigorous development of vector spaces and linear transformations. Prerequisites: MATH 207 and MATH 224 and knowledge of a programming language. (F,S)

MATH 320 Introduction to Mathematical Thought 3(3-0)
A rigorous introduction to sets, logic, mathematical proof, functions, and equivalence relations. Prerequisite: MATH 224. MATH 307 or MATH 325 recommended. (*)

MATH 325 Intermediate Calculus 3(3-0)
Continuation of MATH 224. Vector valued functions and multivariable calculus. Prerequisites: MATH 224 or equivalent. Corequisite: Majors and minors who have not yet completed MATH 207 must enroll in MATH 207 concurrently with MATH 325. (F)

MATH 327 Introduction to Algebraic Systems 3(3-0)
Introduction to groups, rings, and fields and their elementary properties. Prerequisite: MATH 307, or permission of instructor. (S)

MATH 330 Introduction to Higher Geometry 3(3-0)
Euclidean, hyperbolic, finite, and transformation geometries, models, and constructions. Prerequisite: MATH 224 or permission of instructor. (S)

MATH 337 Differential Equations I 3(3-0)
First order differential equations, homogeneous and non-homogenous linear differential equations, introduction to the Laplace transform, applications. Prerequisite: MATH 224 or equivalent. (S)

MATH 338 Differential Equations II 3(3-0)
Linear systems, existence and uniqueness of solutions, non-linear equations, series solutions, orthogonal sets of functions. Fourier series, boundary value problems, partial differential equations and applications. Prerequisite: recommend MATH 325. (*)

MATH 342 Introduction to Numerical Analysis 3(3-0)
Numerical solutions of polynomial, differential, integral, and other equations using the computer. Prerequisites: MATH 207 and a programming language, or permission of instructor. (*)

MATH 348 Numerical Methods 3(3-0)
Linear and non-linear systems of equations, systems of differential equations and boundary value problems, rational function approximations. Prerequisites: MATH 307 and a programming language. (*)

MATH 350 Probability 3(3-0)
Introduction to probability theory and stochastic processes. Probability spaces, random variables and their distributions, exponential and Poisson processes, limit theorems and applications. Prerequisite: MATH 325. (S)

MATH 356 Statistics for Engineers and Scientists 3(3-0)
Calculus-based introduction to statistical methods. Sampling distributions, hypothesis testing, linear regression, design of experiments using ANOVA. Data analysis with Minitab. Prerequisite: MATH 256 or MATH 350. (F)

MATH 360 Elementary Concepts of Mathematics I 3(3-0)
Development of the real number system and related concepts, including sets, numeration systems, whole numbers, integers, fractions, rational numbers, number theory and algorithms. Prerequisites: C or better in MATH 156 and in one additional 100-level math course. Recommend MATH 121. (F,S)

MATH 361 Elementary Concepts of Mathematics II 3(3-0)
Conceptual development of geometry, measurement, probability and statistics. Prerequisite: C or better in MATH 360. (F,S,SS)

MATH 411 Introduction to Topology 3(3-0)
An introduction to topological spaces, homeomorphisms, topological properties, and separation axioms. Prerequisite: MATH 320. (*)

MATH 419 Number Theory 3(3-0)
Divisibility, prime numbers, linear congruences, multiplicative functions, cryptology, primitive roots, and quadratic residues. Prerequisite: MATH 307 or MATH 320. (F)

MATH 421 Advanced Calculus I 4(4-0)
An introductory course in real analysis providing a rigorous development of the concepts of elementary calculus. Prerequisites: MATH 307 and 325, or permission of instructor. (F)

MATH 422 Advanced Calculus II 3(3-0)
Additional topics from elementary real analysis, theory of multivariable calculus, Stieltjes and line integrals. Prerequisite MATH 421. (*)

MATH 425 Complex Variables 3(3-0)
An introduction to complex function theory. Complex numbers, sequences and series, the calculus of complex functions, analytic functions, and conformal mappings. Prerequisite: MATH 325. (*)

MATH 445 Discrete Mathematics 3(3-0)
Topics selected from mathematical reasoning, combinatorial techniques, set theory, binary relations, functions and sequences, algorithm analysis, and discrete analysis. Prerequisites: MATH 224, 307 and knowledge of a programming language. (*)

MATH 456 Design and Analysis of Experiments 3(3-0)
Foundations of experimental design, outline efficient methods to implement experiments, develop statistical methods to sort signal from noise, analysis of variance and response surface models. (*)

MATH 463 History of Mathematics 3(3-0)
Survey of the origins of important mathematical concepts and of the mathematicians responsible for these discoveries. Prerequisites: MATH 307 or MATH 320. (F/E)

MATH 477 Materials and Techniques of Teaching Secondary School Mathematics 4(4-0)
Topics and current issues in secondary mathematics education, including materials development, learning theories, instructional and assessment strategies, curriculum, planning and standards. Field experience required. Prerequisites: Acceptance into Teacher Education Program and Math 307 or Math 320. (F/O)

MATH 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (F,S)

MATH 492 Research (1-3 VAR)
Research project selected by student and supervised by a regular mathematics faculty member. Prerequisite: department approval. (F/S)

MATH 493 Seminar (1-3 VAR)
Prerequisites: senior standing and permission of instructor. (F,S)

MATH 495 Independent Study (1-3 VAR)
Prerequisites: senior standing and permission of instructor. (F,S)

GRADUATE COURSES

MATH 501 Foundations of Mathematics 3(3-0)
Sets, logic, axiomatics, mappings and the various sub-systems of the reals for beginning graduate students. Prerequisite: permission of instructor. (*)

MATH 507 Linear Algebra 3(3-0)
Vector spaces, linear transformations, matrix representation, canonical form. Prerequisite: permission of instructor. (*)

MATH 521 Intermediate Analysis 3(3-0)
Point set theory, including the Bolzano-Weierstrass and the Heine-Borel theorems, theory of differentiation and Riemann integration, and sequences and series of functions. Prerequisite: permission of instructor. (*)

MATH 527 Abstract Algebra 3(3-0)
Groups, rings, integral domains, quotient rings, ideals, fields, homomorphisms and related topics. Prerequisite: permission of instructor. (*)

MATH 530 Advanced Geometry 3(3-0)
Foundations of geometry, geometric transformations, and applications. Prerequisite: permission of instructor. (*)

MATH 541 Computers 3(3-0)
The use of the computer in mathematical investigations, including sophisticated comprehensive computer programs such as Mathematica. Prerequisite: permission of instructor. (*)

MATH 544 Mathematical Methods of Applied Science 3(3-0)
Topics in applied mathematics, including deterministic and stochastic models, programming, optimization, networks, and simulation. Prerequisite: permission of instructor. (F)

MATH 550 Elementary Statistical Methods 3(3-0)
Statistical modeling as a conceptual framework for the analysis of data. Emphasis on analysis using statistical software. Least squares regression, analysis of variance and chisquare tests. Prerequisite: permission of instructor. (S)

MATH 556 (EN 556) Design and Analysis of Experiments 3(3-0)
Foundations of experimental design, outline efficient methods to implement experiments, develop statistical methods to sort signal from noise, analysis of variance and response surface models. Prerequisite: permission of instructor. (SS,*)

MATH 560 Concepts in Elementary School Mathematics (1-3 VAR)
Problems of the curriculum, methods of teaching and evaluation in the elementary school. Prerequisite: permission of instructor. (SS)

MATH 577 Concepts in Secondary School Mathematics (1-3 VAR)
Problems of teaching secondary school mathematics; the slow learner, methods, gifted students, evaluation. Prerequisite: permission of instructor. (*)

MATH 591 Special Topics (1-3 VAR) (*)

MATH 595 Independent Study (1-2 VAR) (*)

MATH 598 Graduate Internship (1-4 VAR)
Volunteer or paid work experience under the combined supervision of the selected organization and a faculty member. Prerequisite: graduate standing. (S/U grades) (F,S,SS)

MATH 599 Thesis Research (1-6 VAR)
Prerequisite: graduate student status. (IP and SU grading) (F,S,SS)

MECHANICAL ENGINEERING (ME)

UNDERGRADUATE COURSES

ME 250 Computer Applications in Engineering 2(2-0)
Use of digital computers in instrumentation, control, and analysis. Prerequisites: EN 105 and MATH 126. (S)

MECHANICAL ENGINEERING TECHNOLOGY (MET)

UNDERGRADUATE COURSES

MET 105 It's a Material World 4(3-2)
Studies and laboratory experiments on modern materials, their behavior and their role in the environment. Review of materials' impact on society. (F,S)

MET 111 Introduction to Drafting 3(0-6)
Professional drafting techniques, lettering, line quality, scales and measurements to include metric, geometric constructions, orthographic projections, technical sketching, sectioning, isometric and auxiliary views. (F,S)

MET 112 Computer-aided Drafting 3(1-4)
Computer-aided drafting to include part modeling - create fully parametric feature-based models and generate engineering drawing. Assembly modeling – create assemblies and subassemblies. Prerequisite: MET 111. (F,S)

MET 203 Manufacturing Processes I 4(3-2)
Introduction to basic processing of materials into useful products. A study of materials selection process based on manufacturing operations. Laboratory study of manufacturing techniques. Prerequisite: MET 105. (F)

MET 204 Manufacturing Processes II 3(2-2)
A continuation of MET 203. Prerequisite: MET 203 or permission of instructor. (S)

MET 291 Special Topics (1-3 VAR) (*)

MET 311 Quality Control 3(3-0)
A study of quality control, program planning and production analysis. (S)

MET 315 Nondestructive Testing 3(2-2)
Determination of quality without change to the material through non-obtrusive examination. Laboratory using dye penetrants, X-ray, etc. to perform NDT. Prerequisite: MET 105. (F)

MET 322 Dynamics of Machinery 3(3-0)
Basic concepts and application of forces in dynamic and accelerated situations. Prerequisites: ET 202 and MATH 232. (F)

MET 341 Thermal and Fluid Principles I 3(3-0)
An introduction to the basic principles of thermal and fluid energy and flow relationships. Prerequisites: PHYS 202 and MATH 232. (F)

MET 352 Design of Machine Elements 3(2-2)
Fundamental concepts in the correct design of the separate elements which compose machines, application of properties and mechanics of materials modified by practical considerations. Prerequisite: ET 206. (F)

MET 356 Basic Design Principles 2(2-0)
A study of the progressive stages of investigating, designing, developing, building and testing of prototypes or models of mechanical processes or products. Prerequisite: MET 352. (S)

MET 361 Computer Integrated Manufacturing 3(2-2)
A study of computer control in the manufacturing process. Laboratory in operation of computer control processes. Prerequisites: MET 204 and MATH 132. (S)

MET 371 CNC Machine Tools 3(2-2)
Principles of numerical control and computerized numerical control machine tool programming and operation. Fabricating parts and programming using CNC lathe and milling machines. Prerequisites: MET 204 and MATH 132. (S)

MET 441 Thermal and Fluid Principles II 3(2-2)
A study of the controlling factors that influence the design of thermal and fluid systems. Conduct experiments to confirm effects on these systems. Prerequisite: MET 341. (S)

MET 442 Design of Energy Systems 3(2-2)
A study of applied technology topics in the conversion, storage, and use of a variety of energy sources. Experimental study of selected energy technologies. Prerequisite: MET 441. (F)

MET 451 Industrial Robotics 3(2-2)
An inspection of the history of robotics. Study of control and application of robotics in society. Laboratory in programming and operation of robotics. Prerequisite: permission of instructor. (F)

MET 452 Heating, Ventilating and Air Conditioning 3(2-2)
Principles and applications of heating, ventilation and air-conditioning (HVAC). Extensive experimentation with a climate controlled laboratory to measure HVAC effectiveness. Prerequisite: MET 341. (S)

MET 456 Senior Project 2(1-2)
The design, analysis, and fabrication of a mechanical engineering technology project by student teams. Prerequisite: MET 356. (F)

MET 460 Instrumentation and Control Systems 3(2-2)
A study of the use of instrumentation in experimental measurements, laboratory and production environments, and control of processes. Laboratory study of instrumentation and control. Prerequisites: EET 250 and ET 206. (F)

MET 491 Special Topics (1-3 VAR)
Prerequisite: junior standing in MET. (*)

MET 493 Seminar (1-3 VAR)
Prerequisite: junior standing in MET. (*)

MET 495 Independent Study (1-3 VAR)
Prerequisite: junior standing in MET. (F,S,SS)

MET 496 Cooperative Education Placement (1-4 VAR)
Work experience under the direction of field supervisor and faculty member. Prerequisites: permission of co-op coordinator. (F,S,SS)

MILITARY SCIENCE (MS)

UNDERGRADUATE COURSES

MS 101 Fundamental Concepts of Leadership 1(1-0)
Introduction to the fundamental components of leadership including values, leadership, and "life skills" (communications theory/practice, interpersonal relationships, and fitness). Field work required once a week. (F)

MS 102 Basic Leadership 1(1-0)
An introduction to leadership theory. Topics include critical thinking, problem solving, followership, group cohesion, goal setting, and feedback mechanisms. Field work required once a week. (S)

MS 201 Advanced Leadership 2(2-0)
Several communication and leadership topics are examined (written/oral communications, motivation, organizational culture, etc.). Includes a major leadership problem solving study. Field work required once a week. (F)

MS 202 Tactics and Officership 2(2-0)
The course focuses on the application of decision making and leadership and examines the roots of national and Army values/ethics. Field work required once a week. (S)

MS 301 Fundamentals of Military Leadership and Training I 3(3-0)
Advanced leadership instruction on motivation, the role/actions of leaders, and organizational communications. Field work required once a week and physical training required three times per week. Prerequisite: ROTC Basic Course Credit. (F)

MS 302 Fundamentals of Military Leadership and Training II 3 (3-0)
Instruction includes leader development, small unit operations, team development, and the Army as a career. Field work required once a week. Physical training required three times/week. Prerequisite: ROTC Basic Course Credit. (S)

MS 303 Advanced Camp 6(0-12)
Students are assigned to a unit, placed in leadership positions, and evaluated on how they work in that unit. Mandatory for Advanced Course ROTC students. Prerequisites: MS 301 and MS 302. (SS)

MS 401 Leadership, Management and Ethics 3(2-2)
Course covers coordinated staff activities, counseling theory and practice, training, ethics, and management. Field work required once a week. Physical training required three times per week. Prerequisite: ROTC Basic Course Credit. (F)

MS 402 Transition to Lieutenant 3 (2-2)
Course covers legal/ethical leadership aspects, Army organization for operations, and administrative/logistics management at unit level. Field work once weekly. Physical training required three times per week. Prerequisite: ROTC Basis Course Credit. (S)

MS 485 Special Studies in Leadership 3(3-0)
Course for students participating in the Army ROTC Advanced Course that want to pursue further studies in military leadership and group dynamics. May be repeated for credit. Prerequisite: by arrangement with the professor of Military Science only. (F,S)

MUSIC (MUS)

UNDERGRADUATE COURSES

MUS 100 Fundamentals of Music 3(3-0)
An in-depth study of the elements and basic principles that relate directly to the structure and function of musical composition. (*)

MUS 105 Introduction to Music and Computers 1(1-0)
Introduction to MIDI with MacIntosh and PC computer platforms (DOS/Windows), assorted equipment, and software dedicated to composing, sequencing, digital recording, performing and printing music. (*)

MUS 110 Career Planning in Music 1(1-0)
Identifying career options in music and creating a personalized educational program.(*)

MUS 118 Music Appreciation 3(3-0)
Significant musical compositions, composers and historical eras; analysis and description of music forms and terms; includes women composers and multi-cultural issues. (*)

MUS 119 How to Read Music 1(1-0)
To enable the non-music major or minor to acquire the fundamentals of notation; to apply the principles of notation to music performance. (*)

MUS 120 Jazz and Folk Music 3(3-0)
Beginning and development of jazz and folk music in the United States. (*)

MUS 121 Intro to History & Literature of Music I 3(3-0)
A study of historical changes in music from the earliest times through the Baroque Period. Music literature and listening materials illustrate these style changes. Prerequisite: for Music Majors & Minors. Corequisites: MUS 201, 201L. (F)

MUS 122 Intro to History & Literature of Music II 3(3-0)
A study of historical changes in music from the Classical and Romantic Periods through the 20th century. Music literature and listening materials illustrate these changes. Prerequisite: for Music Majors & Minors. Corequisites: MUS 202, 202L. (S)

MUS 126 Introduction to Opera 3(3-0)
A survey of operas performed by major opera companies today. (*)

MUS 144 Woodwind Class 1(0-2)
Techniques employed and problems confronted in teaching and playing woodwind instruments. For K-12 music education students. (*)

MUS 145 Brass Class 1(0-2)
Techniques employed and the problems confronted in teaching and playing brass instruments. For K-12 music education students. (*)

MUS 147 Functional Piano Class 1(0-2)
For students with little or no background in keyboard instruments. Explores the basic fundamentals of piano playing. Additional rehearsals and performance activities may be required. (*)

MUS 161 Applied Music Major 2(0-1)
In-depth study of the performance practices of keyboard, brass, woodwind, percussion, string instrument, or voice. One hour per week symposium attendance required. (*)

MUS 162 Applied Music Major 2(0-1)
Continuation of 161. One hour per week symposium attendance required. (*)

MUS 163 Applied Music Minor 1(0-.5)
One-half hour per week private lesson designed for music minors or music majors studying a second instrument. One hour per week symposium attendance required. (*)

MUS 164 Applied Music Minor 1(0-.5)
A continuation of MUS 163. One hour per week symposium attendance required. (*)

MUS 170 Band 1(0-2.5)
Prerequisite: permission of instructor. (*)

MUS 171 Choir 1(0-2.5)
Prerequisite: permission of instructor. (*)

MUS 172 Piano Ensemble 1(0-2.5)
Prerequisite: permission of instructor. (*)

MUS 173 Guitar Ensemble 1(0-2.5)
Ensemble specializing in the performance of appropriate guitar literature. May be repeated for credit. Additional rehearsals and performance activities may be required. Prerequisite: permission of instructor. (*)

MUS 174 Orchestra 1(0-2.5)
Ensemble specializing in the performance of appropriate string chamber music literature. Additional rehearsals and performance activities may be required. Prerequisite: permission of instructor. (*)

MUS 175 Private Lesson 1(0-.5)
Applied music study for the non-music major. Prerequisite: permission of instructor. (*)

MUS 176 Flute Choir 1(0-2.5)
Ensemble specializing in the performance of appropriate flute literature. May be repeated for credit. Prerequisite: permission of instructor. (*)

MUS 182 Lab Band 1(0-2)
A concert band in which students of varied performance back-grounds can gain experience in performance with an instrumental ensemble. (*)

MUS 185 Symposium 0(0-1)
Required course for all majors and minors, student performance, both solo and ensemble, faculty and guest lectures, clinics, demonstrations and public performance preparation. (F/S) (S/U)

MUS 186 Guitar Class I 1(0-2)
For the non-musician. Application of both melodic and chordal (rhythmic) media; introduction to the basic folk music of America. Also for K-12 music education students. Prerequisite: permission of instructor. (*)

MUS 187 Guitar Class II 1(0-2)
For the student with slight knowledge of the instrument. Finger-picking techniques and chordal harmonization; chords covering the entire spectrum of the instrument. Prerequisite: MUS 186 or permission of instructor. (*)

MUS 188 Jazz Band 1(0-2.5)
Open to all regularly enrolled university students by audition. May be repeated for credit. Prerequisite: permission of instructor. (*)

MUS 189 Brass Choir 1(0-2.5)
Explores special brass literature from all style periods. May be repeated for credit. Prerequisite: permission of instructor. (*)

MUS 192 Percussion Ensemble 1(0-2.5)
Explores unique percussion literature. May be repeated for credit. Prerequisite: permission of instructor. (*)

MUS 193 Small Ensemble 1(0-2.5)
For students desiring to perform in a small group other than the major ensemble. (*)

MUS 201 Theory I 3(3-0)
A study of diatonic relationships in four-part homophonic and contrapuntal forms of 18th century styles. Analysis and application of the concepts of Baroque performance practice. Prerequisites: MUS 100 or test-out. Corequisite: MUS 201L. Prerequisite: MUS 102. Corequisite: MUS 201L. (*)

MUS 201L Theory I Lab 1(0-2)
Keyboard harmony, sight, singing, ear training, playing, singing and discriminatory listening to music toward the ends of developing concepts of melody harmony and rhythm. Corequisite: MUS 201. (*)

MUS 202 Theory II 3(3-0)
Continuation of MUS 201. Use of chromatic harmonic principles employed in the late Baroque and Classical Styles. Analysis and application of these principles to performance practice. Prerequisite: MUS 201. Corequisite: MUS 202L. (*)

MUS 202L Theory II Lab 1(0-2)
Keyboard harmony, sight, singing and ear training. Prerequisite: MUS 201. Corequisite: MUS 202. (*)

MUS 210 Electronic Music 3(3-0)
Scientific and aesthetic practices employed in sound recording studio and electronic music. Experience with various types of synthesizers. Several computer music software programs are introduced. (*)

MUS 241 String Class 1(0-2)
Techniques employed and problems confronted in teaching string instruments. For K-12 music education students. (*)

MUS 242 Percussion Class 1(0-2)
Techniques employed and problems confronted in teaching and playing percussion instruments, tuned and untuned. For K-12 music education students. (*)

MUS 246 Voice Class 1(0-2)
Fundamental approach to beginning techniques of singing presented in a group situation. For K-12 music education students. (*)

MUS 261 Applied Music Major 2(0-1)
In-depth study of performance practices of keyboard, brass, woodwind, percussion or string instruments. One hour per week symposium attendance required. Prerequisite: MUS 162. (*)

MUS 262 Applied Music Major 2(0-1)
Continuation of MUS 261. One hour per week symposium attendance required. Prerequisite: MUS 261. (*)

MUS 263 Applied Music Minor 1(0-.5)
One-half hour per week private lesson designed for music minors or music majors studying a secondary instrument. One hour per week symposium attendance required. (*)

MUS 264 Applied Music Minor 1(0-.5)
A continuation of MUS 263. One hour per week symposium attendance required. (*)

MUS 275 Beginning Jazz Improvisation 2(2-0)
For students with little or no background in performing jazz. Explores the basic fundamentals of playing jazz. May be repeated for lower-division credit. (*)

MUS 276 Jazz Improvization I 2(2-0)
Continuation of MUS 275. May be repeated for lower-division credit. (*)

MUS 291 Special Topics (1-3 VAR) (*)

MUS 301 Theory III 3(3-0)
A continuation of MUS 202. Applications of chromatic and altered harmonies of the Romantic, post-Romantic and pre-modern compositions within functional harmonic idioms. Prerequisites: MUS 201 and 202. Corequisite: MUS 301L. (*)

MUS 301L Theory III Lab 1(0-2)
Development of keyboard skills, keyboard harmony, sight singing and ear training exercises to accompany appropriate analytical/compositional techniques. Prerequisite: MUS 202, 202L. Corequisite: MUS 301. (*)

MUS 302 Theory IV 3(3-0)
A continuation of MUS 301. A harmonic study of the emergence of 20th-century compositional techniques from chromatic functional harmonic schemes. Prerequisites MUS 301 and 301L. Corequisite MUS 302L. (*)

MUS 302 Theory IV Lab 1(0-2)
Continuation of MUS 201L. Prerequisites MUS 301 and 301L. Corequisite: MUS 302. (*)

MUS 305 Computer and Electronic Technology in Music 1(0-2)
Continued study of computer hardware, MIDI hardware, and software involved in composing, sequencing, digital recording, performing and printing music. Expansion of MIDI: introduction to multimedia. Prerequisites: MUS 105, 201, 202 or permission of instructor. (*)

MUS 321 Music History III 3(3-0)
A comprehensive survey of music history and forms from the Medieval Era, with consideration of ancient sources, through the Baroque Era and Pre-Classic Style. Prerequisite: MUS 121, 122, 201, 201L, 202, 202L. (F)

MUS 322 Music History IV 3(3-0)
A comprehensive survey of music history and forms from the Classic Era through the present. Prerequisites: MUS 121, 122, 201, 201L, 202, 202L. (S)

MUS 324 Piano Literature 2(2-0)
Survey of piano literature from the 18th-century to the present. (*)

MUS 347 Piano Pedagogy 2(2-0)
Introduction to the practices in teaching private and class piano. (*)

MUS 349 Conducting I, Choral 2(2-0)
Techniques and methods of conducting choral music. (*)

MUS 350 Conducting II, Instrumental 2(2-0)
Techniques and methods of conducting instrumental ensembles. Prerequisite: MUS 349. Corequisites: MUS 182 or 382, or MUS 378. (*)

MUS 351 Principles of Music in the Elementary School 1(1-0)
A lecture course dealing with the principles and methods of teaching music in the elementary school, for the elementary education major. (*)

MUS 361 Applied Music Major 2(0-1)
Continuation of MUS 262 for the junior music student. One hour per week symposium attendance required. Prerequisite: MUS 262. (*)

MUS 362 Applied Music Major 2(0-1)
Continuation of 361. One hour per week symposium attendance required. Prerequisite: MUS 361. (*)

MUS 363 Applied Music Minor 1(0-.5)
One-half hour per week private lesson designed for music minors or music majors studying a second instrument. One hour per week symposium attendance required. (*)

MUS 364 Applied Music Minor 1(0-.5)
Continuation of MUS 363. One hour per week symposium attendance required. (*)

MUS 370 Band 1(0-2.5)
Continuation of MUS 170. May be repeated for credit. Prerequisite: MUS 170 or permission of instructor. (*)

MUS 371 Choir 1(0-2.5)
Continuation of MUS 171. May be repeated for credit. Prerequisite: MUS 171 or permission of instructor. (*)

MUS 372 Piano Ensemble 1(0-2.5)
Continuation of MUS 172. May be repeated for credit. Prerequisite: MUS 172 or permission of instructor. (*)

MUS 373 Guitar Ensemble 1(0-2.5)
Continuation of MUS 173. May be repeated for credit. Prerequisite: MUS 173 or permission of instructor. (*)

MUS 374 Orchestra 1(0-2.5)
Ensemble specializing in performance of appropriate string chamber literature. Continuation of MUS 174. May be repeated for credit. Prerequisite: MUS 174 or permission of instructor. (*)

MUS 376 Flute Choir 1(0-2.5)
Continuation of MUS 176. May be repeated for credit. Prerequisite: MUS 176 or permission of instructor. (*)

MUS 377 Materials and Techniques of Teaching Choral Music 1(0-.5)
Comprehensive study in materials, techniques, methods and problem-solving necessary for the teacher of choral music in the public schools. Prerequisites: MUS 144, 145, 186, 241, 242, and 246. (*)

MUS 378 Materials and Techniques of Teaching Instrumental Music 1(0-.5)
Comprehensive study of materials, methods, and problem solving techniques for the teacher of instrumental music in the public schools. Prerequisite: MUS 144, 145, 186, 241, 242, 246. (*)

MUS 382 Lab Band 1(0-2)
A concert band in which students of varied performance backgrounds can gain experience in performance with an instrumental ensemble. May be repeated for credit. Prerequisite: MUS 182. Corequisite: MUS 350 or 378. (*)

MUS 383 Percussion Ensemble 1(0-2.5)
Continuation of MUS 192. May be repeated for additional credit. Prerequisite: MUS 192 or permission of instructor. (*)

MUS 384 Junior Recital-Professional Track (1-4 VAR)
Preliminary recital of major applied music study, with public performance. Prerequisite: five semesters, or equivalent, of major applied study. (*)

MUS 385 Symposium 0(0-1)
Required course for all majors and minors, student performance, both solo and ensemble, faculty and guest lectures, clinics, demonstrations and public performance preparation. (F/S) (S/U)

MUS 388 Jazz Band 1(0-2.5)
Continuation of MUS 188. May be repeated for credit. Prerequisite: MUS 188 or permission of instructor. (*)

MUS 389 Brass Choir 1(0-2.5)
Continuation of MUS 189. May be repeated for credit. Prerequisite: MUS 189 or permission of instructor. (*)

MUS 393 Small Ensemble 1(0-2.5)
For students desiring to perform in a small group other than the major ensemble. (*)

MUS 400 Orchestration 3(3-0)
Techniques of scoring for instrumental combinations. Prerequisites: MUS 201, 201L, 202, 202L, 301, 301L, 302, and 302L. (*)

MUS 420 Counterpoint 2(2-0)
A re-creative course in 16th-, 18th- and 20th-century contrapuntal styles. Composing music in two, three and four voices as appropriate to the three periods. Prerequisite: MUS 202. (*)

MUS 421 Analytical Techniques 2(2-0)
A study of form and style in music in a historical context. Analysis of music from several style periods, Middle Ages into the 20th-century. (*)

MUS 430 Practicum in Music I 2(0-4)
For the advanced music student to practice the teaching of music by assisting in the teaching of applied music groups within the department. (*)

MUS 431 Practicum in Music II 2(0-4)
Continuation of MUS 430. (*)

MUS 461 Applied Music Major 2 (0-1)
Continuation of MUS 362 for the senior music student. One hour per week symposium attendance required. Prerequisite: MUS 362. (*)

MUS 462 Applied Music Major 2(0-1)
Continuation of MUS 461. One hour per week symposium attendance required. Prerequisite: MUS 461. (*)

MUS 463 Applied Music Minor 1(0-.5)
One-half hour per week private lesson designed for music minors or music majors studying a second instrument. One hour per week symposium attendance required. (*)

MUS 464 Applied Music Minor 1(0-.5)
A continuation of MUS 463. One hour per week symposium attendance required. (*)

MUS 484 Senior Recital-Professional Track (1-5 VAR)
Culmination of applied music study, with public performance. Prerequisite: Completion of Junior Recital MUS 384, seven semesters or equivalent of applied study. (F,S) (*)

MUS 491 Special Topics (VAR 1-4)
Prerequisite: permission of instructor. (F,S,SS)

MUS 495 Independent Study (1-4 VAR) (*)

GRADUATE COURSES

MUS 501 Special Methods in Music Education 2(2-0)
Combination of lecture and lab appropriate to the project. For graduate students. In-depth study of techniques and materials for teaching music in the elementary and middle school. Involvement in research and practical application of approved methods. Prerequisite: graduate standing. (*)

MUS 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

MUS 593 Seminar (1-3 VAR)
Practical application of current music techniques to secondary teaching. Prerequisite: graduate standing. (*)

NURSING (NSG)

UNDERGRADUATE COURSES

NSG 207 Nursing Pathophysiology 3(3-0)
Introduction to the basic disease processes of individual body systems. Incorporates nursing assessment/diagnosis with associated intersystem diseases. Prerequisites: BIOL 206/206L, 223/223L, 224/224L, CHEM 111/111L. (S)

NSG 230 (WS 230) Women, Health and Society 3(3-0)
Introduction to women's health issues and a basic understanding of how women's health has been influenced historically, culturally and by socio-economic factors. (F,S)

NSG 231 Introduction to Professional Nursing 2(2-0)
Historical and theoretical basis for professional nursing practice. Introduction to the heath care system, philosophy of the nursing program, the nursing process and human needs. Prerequisite: admission to BSN program or approval of instructor. (S)

NSG 232 Fundamentals of Nursing 3(3-0)
Theory for utilization of the nursing process in meeting primary health needs of individuals. Basic nursing interventions, critical thinking and therapeutic communication are emphasized. Prerequisite: admission to BSN program. LPNs have an option to test out of NSG 232 and NSG 232L. Corequisite: NSG 232L. Pre/Corequisite: NSG 231. (S)

NSG 232L Fundamentals of Nursing Lab 4(0-8)
Application of NSG 232. Laboratory practice assists students in developing fundamental competencies for providing basic nursing care to individual clients. Corequisite: NSG 232. (S)

NSG 291 Special Topics (1-4 VAR)
Topics and/or nursing skills for enrichment of required nursing courses, and which serve the interest of 10 or more students will be considered. Prerequisite: permission of instructor. (*)

NSG 302 Health Assessment 3(3-0)
Systematic assessment of individuals across the life span. Provides principles necessary to determine potential deviations from normal in evaluating the health status of individuals across the lifespan. Prerequisites: NSG 231, 232/232L, 270 or RN. Corequisite: NSG 302L. (CE, F)

NSG 302L Health Assessment Lab 1(0-2)
Application of NSG 302. Provides the student with the opportunity to collect and record complete health histories and practice skills of physical assessment of individuals throughout the lifespan. Corequisite: NSG 302. (CE, F)

NSG 305 Ethical Issues in Health Care 3(3-0)
Selected theories which influence ethical choice in nursing are presented. Areas of the law and legal systems that affect the public health are included. Current ethical issues related to nursing practice. Prerequisite: permission of instructor. (F,S)

NSG 307 Health and Disease Systems 3(3-0)
Alterations and adaptations of individual body systems to disease processes. Prerequisites: BIOL 223/223L, 224/224L, CHEM 111/111L, Registered Nurse License, and/or permission of instructor. (CE, F, S)

NSG 309 Professional Nursing Practice 4(4-0)
Introduction to the philosophy of the USC nursing program. Included is professionalization theories for nursing practice and teaching personal growth. Concepts including group process and teaching learning are examined in relation to nursing practice across the lifespan. Prerequisite: Registered Nurse license. (F,S)

NSG 311 Concepts for Professional Nursing 4(4-0)
Advanced study of concepts and theory of Maternal, neonatal, pediatric, family and mental health related to professional nursing. An experiential component will be included. Prerequisite: Registered Nurse Licensure. (S)

NSG 312 Nursing Care of Childbearing Families 3(3-0)
Theory for nursing care of the neonate and procreative family during the perinatal period. Includes health promotion, family theory and human sexuality. Prerequisite: NSG 231, 232/232L, 270. Corequisite: NSG 312L. Pre/Corequisite: NSG 302/302L. (F)

NSG 312L Nursing Care of Childbearing Families Lab 3(0-6)
Application of NSG 312. Clinical experiences emphasize use of the nursing process in meeting needs of the neonate and family during the perinatal period. Co-requisite: NSG 312. (F)

NSG 322 Nursing Care of the Adult I 3(3-0)
Nursing process directed toward principles of therapeutic nursing care of adults health promotion and with common health problems. Prerequisites: NSG 302/302L, 322L. (F)

NSG 322L Nursing Care of the Adult I Lab 4(0-8)
Application of NSG 322. Clinical experiences emphasize use of the nursing process in meeting selected needs of adult clients. Corequisite: NSG 322. (F)

NSG 332 Nursing Care of Children and Adolescents 3(3-0)
Theory for nursing care of children and adolescents. Emphasizes the nursing process related to health promotion, maintenance and restoration for the child, adolescent and family. Prerequisites: NSG 231, 232/232L, 270, 302/302L, 312/312L, 322/322L. Corequisite: NSG 332L. (S)

NSG 332L Nursing Care of Children and Adolescents Lab 3(0-6)
Application of NSG 332. Clinical experiences emphasize use of the nursing process in meeting health related needs of children and adolescents. Corequisite: NSG 332. (S)

NSG 351 Research in Nursing 3(3-0)
This course is in an introduction to the roles, and methods of research in nursing. It facilitates development of nurses as consumers of research for research based practice. Prerequisite: MATH 156, NSG 231, 270, 302/302L, 332/332L, or permission of instructor. (S)

NSG 372 Clinical Practicum 3(0-9)
An elective course that provides an opportunity for a concentrated clinical practicum in a variety of patient care settings. Prerequisite: completion of all junior level nursing courses. (*)

NSG 382 Psychiatric Nursing 3(3-0)
Nursing process directed toward care of individuals and families experiencing mental illness. Includes concepts of mental health, group process and group leadership. Prerequisite: NSG 322/322L, 302/302L, 312/312L. Corequisite: NSG 382L. (CE, S)

NSG 382L Psychiatric Nursing Lab 3(0-6)
Application of NSG 382. Clinical experiences emphasize all components of the nursing process in meeting the needs of individuals and families experiencing mental illness. Corequisite: NSG 382. (S)

NSG 391 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

NSG 420 Nursing Care of the Adult II (3-0)
Builds on content in NSG 322. Includes complex, acute and chronic health problems of individuals and continuity of care within the health care system. Prerequisite: completion of all junior nursing courses. Corequisite: NSG 420L. (F)

NSG 420L Nursing Care of the Adult II Lab 4(0-8)
Application of 420. Students utilize expanded data base and action strategies to meet complex health needs of individuals. Includes technological skills for nursing interventions. Corequisite: NSG 420. (F)

NSG 431 Gerontological Nursing 3(3-0)
An elective theory course that focuses on nursing interventions for older adults. Prerequisite: completion of all junior level nursing courses. (F,S)

NSG 442 Community and Family Nursing 3(3-0)
Theory in application of the nursing process, public health principles and concepts related to families and communities. Prerequisite: completion of all junior level nursing courses. Corequisite: 442L. (F)

NSG 442L Community and Family Nursing Lab 3(0-6)
Application of NSG 442. Selected experiences in community health settings. Health education and health promotion are emphasized. Corequisite: NSG 442. (F)

NSG 451 Nursing Management 3(3-0)
Theories and skills that enhance the nurse's role as leader and manager in health care and community systems. Prerequisites: Completion of junior level courses. (F)

NSG 452 Nursing Process: Synthesis 3(3-0)
Synthesis of previous course work with integration of theories, research and the nursing process in meeting complex health needs of clients from diverse cultural backgrounds. Prerequisites: NSG 420/420L, 442/442L, NSG 451. Corequisite: 452L. (S)

NSG 452L Nursing Process: Synthesis Lab 3(0-9)
Application of NSG 452. Synthesis of process and content of nursing in managing client groups in acute and rehabilitation settings. Corequisite: NSG 452. (S)

NSG 461 Health Care Issues and Trends 3(3-0)
Issues and trends related to health care including professional, ethical and legal issues. Prerequisite: completion of all junior level nursing courses. (S)

NSG 472 Clinical Practicum II 3(0-9)
Concentrated practicum courses consisting of application of the nursing process in complex care settings. Prerequisite: permission of instructor. (F,S,SS)

NSG 492 Research 2(2-0)
Major nursing theories are examined in relation to nursing functions they imply, kinds of hypotheses they would generate, and kinds of research they would stimulate. There is examination of research process, design, methods of collecting and analyzing data, and interpretation of data. Prerequisite: NSG 351. (*)

NSG 495 Independent Study (1-6 VAR) (*)

GRADUATE COURSES

NSG 521 Advanced Health and Disease Systems 4(4-0)
Examination of advanced pathophysiology and accompanying data assessment of the adult that lead to differential nursing diagnosis and subsequent interventions. Prerequisite: BSN or senior honors. (*)

NSG 551 Health Systems Management 3(3-0)
Examination of public policy and trends in management, budget and staffing within state and federal guidelines as it relates to nursing. Prerequisite: BSN or senior honors. (*)

PHILOSOPHY (PHIL)

UNDERGRADUATE COURSES

PHIL 102 Philosophical Literature 3(3-0)
Philosophical literature that focuses on such questions as what is the nature of reality, how do we know what we know, and for what kind of life should we strive. (F,S)

PHIL 103 Civilization 1(1-0)
Kenneth Clark's acclaimed film series "Civilization." Thirteen 50-minute films exploring the concept of civilization from the primary viewpoint of the arts and philosophy. (*)

PHIL 120 Non-western World Religions 3(3-0)
A study of major world religions including Buddhism, Confucianism, Hinduism, Islam, Jainism, Sikhism, Shinto, Taoism, Zoroastrianism. (*)

PHIL 201 Classics in Ethics 3(3-0)
The logic of objective norms and standards of "good" vs. "bad," "right" vs. "wrong," from major philosophers and classics of literature. Application to contemporary issues. (F,S)

PHIL 204 Critical Reasoning 3(3-0)
Survey of the general principles of correct reasoning with emphasis on the role of language in the reasoning process. Major concern with induction and fallacy detection. (F,S)

PHIL 205 Deductive Logic 3(3-0)
Study of the principles and methods used to distinguish valid from invalid patterns of deductive reasoning. Especially useful for students in computer- or mathematics related fields.(*)

PHIL 291 Special Topics (1-3 VAR)
Students who have an area of special interest are encouraged to contact the department. Special topics and authors of philosophical interest. May be repeated for 12 credits maximum.(*)

PHIL 293 History of Philosophy Seminar I 3(3-0)
Greek, Latin, and medieval philosophy. (*)

PHIL 295 Independent Study (1-3 VAR)
Specialized study of select persons, ideas, schools, historical trends or problems in philosophy. May be repeated up to 9 credits. Prerequisite: permission of instructor. (*)

PHIL 393 History of Philosophy Seminar II 3(3-0)
Early modern period (Renaissance) in Western philosophy from Hobbes to Hume. Emphasis on the continental rationalists and the British empiricists. (*)

PHIL 401 Epistemology Seminar 3(3-0)
Study of the philosophical principles and issues relevant to various claims of knowledge. Prerequisites: PHIL 205, 313 and 314. (*)

PHIL 402 Metaphysics Seminar 3(3-0)
Ontology, cosmology, space, time, causality, change, freedom, and other topics of metaphysics. Prerequisites: PHIL 313 and 314. (*)

PHIL 491 Special Topics (1-3 VAR)
Special topics and authors of philosophical interest. May be repeated for 12 credits maximum. More advanced than PHIL 291. Students who have an area of special interest are encouraged to contact the department. (*)

PHIL 493 History of Philosophy Seminar III 3(3-0)
Later modern period in philosophy beginning with Kant and continuing to the beginning of the 20th century. (*)

PHIL 495 Independent Study (1-3 VAR)
Specialized study of select persons, ideas, schools, historical trends or problems in philosophy. May be repeated up to 9 credits. Prerequisite: permission of instructor. (*)

PHYSICS/PHYSICAL SCIENCE (PHYS)

UNDERGRADUATE COURSES

PHYS 110 Astronomy 3(3-0)
Solar system, including motions of the planets, eclipses, and satellite exploration; classification and evolution of stars; clusters, nebulae, galaxies and the expanding universe. (F,S)

PHYS 140 Light, Energy, and the Atom 3(3-0)
A non-mathematical approach to light, energy sources, conservation, atoms, nuclei and nuclear radiation. Emphasis on phenomena encountered in everyday life or that affect public policy. (F,S)

PHYS 140L Light, Energy and the Atom Lab 1(0-2)
Optional laboratory to accompany PHYS 140. Experiments in light, solar energy, atomic and nuclear physics with emphasis on qualitative understanding of observations. Corequisite: PHYS 140. (F)

PHYS 150 (CHEM 150) Elementary Concepts in Physics and Chemistry 4(3-2)
Hands-on standards-based approach to understanding basic concepts of physics and chemistry. Integrated lecture, lab and discussion periods. (F,S,SS)

PHYS 161 Elementary Concepts in Science II 4(3-2)
Hands-on, standards-based approach to understanding basic concepts of physical, earth and space sciences, including selected topics in technology. Integrated lecture, lab, discussion periods. (F,S,SS)

PHYS 201 Principles of Physics I 3(3-0)
Motion, forces, conservation of energy and momentum, wave motion, sound and heat. For engineering technology, life sciences, and other interested students. Prerequisite: two years high school algebra. Corequisite: PHYS 201L. (F,S)

PHYS 201L Principles of Physics I Lab 1(0-2)
Corequisite: PHYS 201. (F,S)

PHYS 202 Principles of Physics II 3(3-0)
Electrostatics, electromagnetism, light, atomic and nuclear physics. Prerequisite: PHYS 201. Corequisite: PHYS 202L. (F,S)

PHYS 202L Principles of Physics II Lab 1(0-2)
Corequisite: PHYS 202. (F,S)

PHYS 221 General Physics I 4(4-0)
Newtonian mechanics, including linear and rotational dynamics, momentum, energy, gravitation, fluid mechanics, wave motion and thermodynamics. Uses the calculus and vector notation. For majors in physics, mathematics, geoscience, engineering and chemistry. Prerequisite: high school physics or PHYS 201, or permission of instructor. Prerequisite or Corequisite: MATH 126. Corequisite: PHYS 221L. (S)

PHYS 221L General Physics I Lab 1(0-2)
Corequisite: PHYS 221. (S)

PHYS 222 General Physics II 4(4-0)
Electrostatics, electromagnetism, elementary circuits, electrical oscillations, geometrical optics and the wave aspects of light. Prerequisite: PHYS 221. Corequisites: PHYS 221 and 222L. (F)

PHYS 222L General Physics II Lab 1(0-2)
Corequisite: PHYS 222. (F)

PHYS 291 Special Topics (1-4 VAR) (*)

PHYS 301 Theoretical Mechanics 4(4-0)
Statics and dynamics of particles and rigid bodies. Conservation principles, minimum principles, accelerated coordinate systems, Lagrangian and Hamiltonian methods, vector and matrix methods. Prerequisites: PHYS 221, MATH 325 and MATH 337. (F/E)

PHYS 321 Thermodynamics 3(3-0)
Introduction to thermodynamic laws and principles, entropy, kinetic theory and statistical mechanics. Prerequisite: PHYS 221. (F/E)

PHYS 322 Advanced Laboratory- Heat 1(0-2)
Experiments in heat of combustion, heat transfer, thermal electromotive force, viscosity, and specific heat measurements. Prerequisite or corequisite: PHYS 321. (F/E)

PHYS 323 General Physics III 4(4-0)
Introduction to special relativity, kinetic theory, quantization, wave mechanics, atomic structure, nuclear physics and spectroscopy. Prerequisites: PHYS 222/222L and MATH 224. Corequisite: PHYS 323L. (S)

PHYS 323L General Physics III Lab 1(0-2)
Corequisite: PHYS 323. (S)

PHYS 341 Optics 3(3-0)
Geometrical optics, interference, diffraction, polarization of light, optical properties of materials, optical sources including lasers, and holography. Prerequisites: PHYS 222/222L and MATH 325. (F, O)

PHYS 342 Advanced Laboratory-Optics 1(0-2)
Experiments in interference, diffraction, absorption, spectral characteristics and polarization of light. Prerequisite or Corequisite: PHYS 341. (F, O)

PHYS 361 Physics of Sound 3(3-0)
Sound waves, sources of sound, physics of hearing, acoustical measurements. For speech correction majors and other interested students. Prerequisite: MATH 120 or equivalent. (F, O)

PHYS 431 Electricity and Magnetism 4(4-0)
Mathematical treatment of electrostatics, currents, magnetism, electromagnetic induction, Maxwell's equations and electrodynamics. Prerequisites: PHYS 222/222L, MATH 325 and 337. (S, E)

PHYS 432 Advanced Laboratory-Electricity and Magnetism 1(0-2)
Experiments in electrostatic constants, magnetic effects, capacitance, thermoelectric effects, magnetic properties, inductance, mutual inductance, and production, propagation and diffraction of microwaves. Prerequisite or Corequisite: PHYS 431. (S, E)

PHYS 441 Quantum Mechanics 4(4-0)
Wave packets, operators, the Schroedinger equation, eigenstates, angular momentum, spin, magnetic moments, Heisenberg formulation. Prerequisites: PHYS 323/323L, MATH 325 and 337. (S, O)

PHYS 480 Practicum in Laboratory Instruction 1(0-2)
Participation in laboratory instruction under the guidance of a staff member. Includes instruction on laboratory safety. May be repeated for a maximum of two credits. (F,S)

PHYS 491 Special Topics (1-4 VAR) (*)

PHYS 492 Research 1(0-2)
Prerequisite: eight credits in upper-division physics courses. (F,S)

PHYS 493 Seminar 1(1-0)
Class members report on recently published work or on their own research in physics or applied physics. May be repeated for a maximum of two credits. Prerequisite: advanced standing with a major or minor in physics.
(S, O)

PHYS 495 Independent Study (1-2 VAR)
Prerequisite: junior or senior standing; permission of department chair. (*)

PHYS 499 Thesis Research 1(1-0)
Students write a research paper describing their own research. Prerequisite: senior standing in the department. (F,S)

POLITICAL SCIENCE (POLSC)

UNDERGRADUATE COURSES

POLSC 101 American National Politics 3(3-0)
Basic processes in American politics. Principles and structure of national governments. (*)

POLSC 102 State and Local Government and Politics 3(3-0)
Behavioral aspects, government organization and inter-relationships of state and local politics, relations with federal government and other states. Special attention to Colorado government. (S)

POLSC 105 (PSYCH, SOC, SW, WS 105) Understanding Human Diversity 3(3-0)
Americans live in a complex and diverse society. This course examines the nature, impact and strategies for dealing with diversity in personal and social contexts. (*)

POLSC 106 Minority Politics in America 3(3-0)
An overview of the historical and contemporary struggles for empowerment by groups traditionally excluded from full societal participation because of racial designation. (*)

POLSC 200 Understanding Human Conflict 3(3-0)
Study of conflict: personal, social, institutional, ethnic, and international. Conflict resolution and management also will be addressed. (*)

POLSC 201 Comparative Politics 3(3-0)
Introduction to comparative political analysis through study of selected political systems. Emphasis on basic political functions and processes in developed countries. (F)

POLSC 202 World Politics 3(3-0)
Study of political problems and issues which face the world. Emphasis on conflict, arms transfers, economic change and world commons. (S)

POLSC 240 Political Analysis 3(3-0)
An introduction to political science and its subfields. Includes methods for critically thinking about the political process and communicating political ideas. Prerequisite: POLSC 101. (S)

POLSC 250 Research Methods in Political Science 3(3-0)
Introduction to the basic methods and tools of research in political science, including the scientific method, research design, data collection and qualitative and quantitative analysis. Prerequisites: POLSC 101 and 240. (*)

POLSC 260 Paralegal I 3(3-0)
Study of theory of law and legal process. Course will not count toward the major or minor in political science. (F,S,SS,*)

POLSC 261 Paralegal II 3(3-0)
Using primary and secondary source materials in legal research. Course will not count toward the major or minor in political science. Prerequisite: POLSC 260. (F,S,SS,*)

POLSC 300 Political Parties and Elections 3(3-0)
Examines the organization and function of political parties and the roles of political parties, pressure groups, and public opinion in American elections. Prerequisite: POLSC 101. (F)

POLSC 305 International Relations 3(3-0)
Study of international systems and organizations. Special emphasis on the principal sources of conflict and the study of conflict management. Prerequisite: POLSC 201 or 202. (S)

POLSC 320 Legal Research Methods 3(3-0)
Introduction to the basic reference materials of legal research. Use of law libraries, interpretation of statutes and judicial decisions and preparation of legal memoranda. (S/U grades). (*)

POLSC 321 American Constitutional Development 3(3-0)
Political context of the origin of the U.S. Constitution, Supreme Court procedures, court decisions defining uses and scope of the powers of the court, the Congress and the presidency. Prerequisite: POLSC 101. (F)

POLSC 322 American Constitutional Law 3(3-0)
Survey of American constitutional law; emphasis on Supreme Court decisions defining the extent and limits and of governmental authority and the rights and liberties of individual citizens. Prerequisite: POLSC 321 or permission of instructor. (S)

POLSC 323 Criminal Law and Procedure 3(3-0)
Content and characteristics of criminal law and procedures. Roles and functions of persons and agencies involved in judicial administration. Prerequisite: POLSC 101. (F)

POLSC 324 Family Law 3(3-0)
Survey of legal issues concerning domestic relations; Supreme Court decisions and legislative enactments. Prerequisites: POLSC 101 and 320. (S)

POLSC 330 Introduction to Public Administration 3(3-0)
Role of public bureaucracy in modern society. Principles and processes of public administration, personnel management and administrative responsibility. Prerequisite: POLSC 101. (*)

POLSC 340 Public Policy 3(3-0)
Introduces the process of formulation, implementation, and evaluation of public policy. Examines program development and execution in the context of political, economic, and institutional environments. Prerequisite: POLSC 101. (*)

POLSC 370 Political Thought 3(3-0)
Systematic survey of political thought from beginnings in Ancient Near East to present. Emphasis on contributions relevant to contemporary political theory. Prerequisite: previous work in political science or philosophy. Prerequisite: POLSC 250 or permission of instructor. (F)

POLSC 395 Independent Study (1-3 VAR)
Independent study involving specialized reading and research. Prerequisite: permission of instructor. (*)

POLSC 405 The American Presidency 3(3-0)
Analysis of the powers and politics of the American presidency and those who have held the office. Presidential decision making, legislative and judicial relationships, elections. Prerequisite: POLSC 101. (S)

POLSC 411 Legislatures and Legislation 3(3-0)
Organization, function, and process of American legislatures at national, state and local levels. Party organization, legislative procedures, lobbying and legislative reorganization. Prerequisite: POLSC 101. (S)

POLSC 440 Area Study: Europe 3(3-0)
Introduction to the political, economic and military structures and processes of the region. (*)

POLSC 445 Area Study: Latin America 3(3-0)
Introduction to the political, economic, and military structures and processes of the region. (*)

POLSC 450 Area Studies: Asia and The Pacific 3(3-0)
Introduction to the political, economic and military structures and processes of the region. (*)

POLSC 455 Area Study: Africa/Middle East 3(3-0)
Introduction to the political, economic and military structures and processes of the region. (*)

POLSC 473 American Political Thought 3(3-0)
Development of American segment of modern political thought from colonial times to present. Interrelationship of individuals, ideas and institutions shaping modern American political responses. (*)

POLSC 480 Practicum in Politics and Public Service (3-6 VAR)
For advanced students. Practical experience as interns in governmental agencies, political parties or legal offices. Prerequisite: departmental permission. (S/U Grading) (*)

POLSC 491 Special Topics (1-3 VAR)
Independent study involving seminars and research. Prerequisites: junior or senior status with adequate preparation and approval of instructor. (*)

POLSC 492 Research (1-3VAR) (*)

POLSC 493 Seminar (1-3 VAR)
Application of research methods and materials. Emphasis on in-depth study of specific political topics. Involves writing and discussion of research papers at advanced level. Prerequisite: POLSC 250 and 370. (S)

PSYCHOLOGY (PSYCH)

UNDERGRADUATE COURSES

PSYCH 100 General Psychology 3(3-0)
Overview of the field of psychology including learning, perception, motivation, emotion, heredity, personality, development, abnormal and psycho-therapy. (F,S,SS)

PSYCH 105 (POLSC, SOC, SW, WS 105) Understanding Human Diversity 3(3-0)
Americans live in a complex and diverse society. This course examines the nature, impact and strategies for dealing with diversity in personal and social contexts. (*)

PSYCH 110 Improving Memory 2(2-0)
Practical guide to understanding and improving memory. Emphasis on the application of study techniques for memory improvement. Exercises designed to increase memory ability. (*)

PSYCH 151 Introduction to Human Development 3(3-0)
Survey of human development through life span. A multi-disciplinary approach to the study of both change and stability in physical, cognitive, social and personality development. Review of relevant developmental theory and research. (F,S,SS)

PSYCH 201 Introduction to Data Analysis 3(3-0)
Introduction to descriptive and inferential statistics. Probability and hypothesis testing procedures will be considered. Parametric and nonparametric techniques will be described. Prerequisites: PSYCH 100 and two years high school algebra or equivalent. (F,S,SS)

PSYCH 202 Data Analysis Methods 2(2-0)
Introduction to use of the computer to perform statistical applications/analysis. Corequisite: PSYCH 201. (F,S,SS)

PSYCH 205 Introduction to Sport Psychology 3(3-0)
An introduction to psychological theories and constructs affecting performance, coaching & development in sports and athletics. (F)

PSYCH 211 Women and Society 3(3-0)
Statistical overview of the current status of women, followed by examination of theories concerning equality of the sexes. (F)

PSYCH 212 Sexism and Racism in America 3(3-0)
Dynamics of prejudice and discrimination in terms of sex and race; special attention to analysis of strategies for improving relations. (S)

PSYCH 220 Drugs and Behavior 3(3-0)
Principles of drug action with attention to beneficial and harmful uses of drugs. (F,S)

PSYCH 222 Understanding Animal Behavior 3(3-0)
Basic comparative and ethological perspectives regarding animal behavior. Scientific techniques for observation of animal behavior may be demonstrated at the Pueblo Zoo. (F,S)

PSYCH 231 (SOC 231) (WS 231) Marriage and Family Relationships 3(3-0)
Marriage and family from an institutional and relationship perspective: cross-cultural diversity, mate selection, marital dynamics, parenting, divorce, remarriage, emerging patterns. (F,S)

PSYCH 241 Human Sexuality 2(2-0)
Psychological and biological aspects of human sexual behavior. Prerequisites: sophomore standing and permission of instructor. (F)

PSYCH 251 Infancy, Child-hood and Preadolescence 3(3-0)
Physical, social, cognitive and emotional growth of the individual from conception through pre-adolescence. Topics include prenatal development, language development, attachment, and sexual development. Prerequisite: PSYCH 100. (F,S)

PSYCH 252 Adolescent Psychology 3(3-0)
Psychological aspects of physical, cognitive, emotional and social aspects of adolescence. Prerequisite: PSYCH 100. (F,S)

PSYCH 253 Psychology of Adulthood and Aging 3(3-0)
Psychological aspects of the physical, perceptual, cognitive personality and social changes with age. Relationships, retirement, adult psychopathology and death and dying are also covered. Prerequisite: PSYCH 100. (*)

PSYCH 301 Introduction to Psychological Experimentation 3(3-0)
Introduction to basic methods and procedures for data collection and analysis of psychological experiments. Both survey and laboratory-based research designs will be described. Prerequisites: PSYCH 100 and 201. (F,S)

PSYCH 302 Psychological Experimentation Methods 2(2-0)
Introduction to methods of psychological experimentation in animals and humans. Corequisite: PSYCH 301. (F,S)

PSYCH 311 Theories of Personality 3(3-0)
Major theories of personality and the methods of personality investigation. Prerequisite: PSYCH 100, junior standing or permission of instructor (F,S)

PSYCH 314 Environmental Psychology 3(3-0)
The influence of the physical and social environment on the individual. Variables considered include architecture, city size, noise, pollution and allocation of resources. Prerequisite: PSYCH 100. (*)

PSYCH 315 Organizational and Administrative Psychology 3(3-0)
Application of psychological principles to methods of selection, placement evaluation, motivation of personnel to work, and problems of human relations in business and industry. Prerequisite: PSYCH 100. (*)

PSYCH 331 Physiological Psychology 3(3-0)
Structure and function of the brain, nervous and endocrine systems; biological basis of sensation, perception, sleep and arousal, motivation, learning and memory, and drug action. Prerequisites: PSYCH 100, or BIOL 203 and 204, or permission of instructor. Corequisite: PSYCH 331L. (S)

PSYCH 331L Physiological Psychology Lab 1(0-2)
Corequisite: PSYCH 331. (S)

PSYCH 334 Perception 3(3-0)
The senses and how they cooperate with the brain to provide awareness and knowledge of the world about us. Empirical findings and theoretical analysis of the processes of seeing, hearing, tasting, smelling and touching. Role of learning in normal and illusory perception is considered. Prerequisite: PSYCH 100 or permission of instructor. Corequisite: PSYCH 334L. (*)

PSYCH 334L Perception Lab 1(0-2)
Corequisite: PSYCH 334. (*)

PSYCH 335 Motivation 3(3-0)
Goal-directed behavior, survey of biosocial approaches to motivation. Behavioral, cognitive and biological perspectives applied to eating, sexual behavior, aggression, affection and affiliation, obedience, achievement and cooperation. Prerequisite: PSYCH 100. Corequisite: PSYCH 335L or permission of instructor. (*)

PSYCH 336 Learning 3(3-0)
Principles of learning and memory. Empirical findings and theoretical analyses of topics including conditioning, reinforcement and punishment. Research and application. Prerequisite: PSYCH 100 or permission of instructor. Corequisite: PSYCH 336L. (*)

PSYCH 336L Learning Lab 1(0-2)
Corequisite: PSYCH 336. (*)

PSYCH 337 Memory and Cognition 3(3-0)
Theory and research on current topics in cognition, including attention, concept formation, imagery, memory, decision making, language acquisition, problem solving and text comprehension. Prerequisite: PSYCH 100.(F)

PSYCH 342 Educational Psychology 3(3-0)
The contribution of psychology theory, research and methods to our understanding of teaching and learning. Prerequisite: PSYCH 100 or 151. (*)

PSYCH 351 Psychology of the Exceptional Individual 3(3-0)
Survey of characteristics of those individuals considered significantly above or below the norm of the population. Emphasis on behavioral identification and modification of the home, school and social environment. Prerequisite: PSYCH 100. (*)

PSYCH 352 (SOC 352) Social Psychology 3(3-0)
General and applied psychological principles of the individual's interaction with a group. Prerequisite: PSYCH 100 or permission of instructor. (*)

PSYCH 353 Advanced Child Psychology 3(3-0)
Emphasis on theoretical foundations of developmental psychology. Research strategies used in conducting developmental research. Prerequisite: PSYCH 151 or PSYCH 251 and 252. (S)

PSYCH 362 Abnormal Psychology 3(3-0)
Etiology, diagnosis and therapy of maladaptive or abnormal behaviors and mental functioning. Prerequisite: PSYCH 100. (F,S)

PSYCH 381 Principles of Psychological Testing I 4(4-0)
Theories and principles of psychological testing are applied to the selection, use and evaluation of available tests. Prerequisites: PSYCH 100 and 201. (*)

PSYCH 401 History and Systems of Psychology 3(3-0)
The historical development of modern psychology from its roots in classical philosophy and the social, cultural, and political context within which psychological theory emerged. Prerequisites: PSYCH 100, 301, 302 and senior standing or permission of instructor. (F,S)

PSYCH 405 Applied Sport Psychology 3(3-0)
The application of psychological theories and techniques for the enhancement and personal growth of athletes from youth sports to elite levels. Prerequisite: PSYCH 205. (S)

PSYCH 410 Advanced Data Analysis 3(3-0)
Advanced techniques in data analysis, including analysis of variance/covariance, post-hoc tests, multiple regression and non-parametric tests. Use of computer software programs will be addressed, especially for those interested in graduate school admission. Prerequisites: PSYCH 201 and 201L. (*)

PSYCH 420 Human Evolutionary Psychology 3(3-0)
A synthesis of the modern principles of psychology with evolutionary biology with an emphasis on the origins of higher cognitive functions, emotions, and culture. Prerequisites: PSYCH 100 & Jr. Sr. standing. (*)

PSYCH 463 Psychopathology of Childhood 3(3-0)
A survey of the unique conceptual models of etiology, assessment and therapy appropriate to the study of the psychological disorders of childhood. Prerequisites: PSYCH 100 and 362 or equivalent. (*)

PSYCH 464 Systems of Counseling and Psychotherapy 3(3-0)
Traditional and contemporary theories of counseling and psychotherapy through use of case studies and other selected materials. Prerequisites: PSYCH 100 and 311. Corequisite: PSYCH 464L or permission of instructor. (F)

PSYCH 464L Systems of Counseling and Psychotherapy Lab 1(0-2)
Corequisite: PSYCH 464. (F)

PSYCH 465 Behavior Modification 3(3-0)
Advanced methods and techniques of behavior modification as practiced in various agencies and institutions. Prerequisites: PSYCH 100 and upper division standing. (*)

PSYCH 466 Psychology of Biofeedback 3(3-0)
Psychophysiological aspects of biofeedback. Theoretical and applied instrumentation and clinical use. Project required. Prerequisites: PSYCH 100 and upper division standing. (*)

PSYCH 471 Clinical Psychology 3(3-0)
Survey of clinical psychology as a profession. Training requirements, opportunities, future directions, current research and ethical problems. Prerequisites: PSYCH 100, 311, 362, 381, 464. (F)

PSYCH 475 Group Process 3(3-0)
Study and practice of basic group theory and approaches as they are applied in mental health. Basic group therapeutic techniques and procedures will be demonstrated in an experiential setting. Prerequisites: PSYCH 100, 464 and 464L. (S)

PSYCH 484 Diagnosis and Assessment 3(3-0)
Continuation of PSYCH 381. A survey of major psychological assessment and diagnostic techniques including interviewing strategies. Intelligence and personality tests as well as clinical instruments and procedures will be utilized in a case study approach. Prerequisites: PSYCH 100 and 381, permission of instructor. (*)

PSYCH 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

PSYCH 493 Seminar (1-3 VAR)
Discussion and synthesis of psychological issues important to psychology majors. Prerequisites: PSYCH 100, psychology major, or permission of instructor. (*)

PSYCH 494 Field Experience (4-12 VAR)
In-depth, on-the-job experience in psychology, individually designed. Ability to use psychological tests and counseling techniques recommended. Prerequisites: PSYCH 100, 362, junior or senior standing, and written permission of instructor of record prior to registration. (F,S,SS)

PSYCH 495 Independent Study (1-3 VAR)
Prerequisites: PSYCH 100, psychology major and prior written permission of instructor of record. (F,S,SS)

GRADUATE COURSES

Limited to those enrolled in the Counselor Training Master's degree, or permission of instructor.

PSYCH 515 Psychology of Minorities 3(3-0)
Designed to provide a systematic analysis of the forces that shape the behavior of minorities and consequent counseling methods with this population. (*)

PSYCH 517 Life Span Development 3(3-0)
Leads to a broad understanding of the impact of external influences on a person through the life span. Format includes exploration of topics of interest, discussion of research and active class participation (*)

PSYCH 524 Philosophy and Theories of Counseling 3(3-0)
Designed to acquaint students with the range of theories currently directing the work of the counselor and to facilitate the development of a personal model of counseling. Personal professional ethics emerge as a major course focus. (*)

PSYCH 525 Tools and Techniques of Guidance Services 3(3-0)
Open to graduate students in the secondary school counseling program. A study of materials and methods used in secondary schools and of the counselor as a consultant and coordinator. The importance and role of the secondary school counselor will be the focus of this class. (*)

PSYCH 526 Organizational Development 3(3-0)
Designed to provide the graduate student with experience and skills necessary to improve programs and organization. (*)

PSYCH 527 Group Counseling 3(3-0)
Leads to an understanding of the function of group methods in the guidance program and assists the student in developing group facilitation skills. (*)

PSYCH 528 Career Development 3(3-0)
Designed to help students gain insight and understanding of the development process of occupational decision. Explores career counseling provided by counselors for clients in the areas of future education and in the world of work. (*)

PSYCH 530 Family Therapy 3(3-0)
This course is an introduction to Family Systems Theory. Emphasis is on the history and development of treatment models in family interventions and techniques. Prerequisite: graduate standing. (*)

PSYCH 536 Practicum 3(3-0)
Designed to provide the beginning counseling student with basic interpersonal training experience. Individual and group contact focuses on personal growth and skill development. (*)

PSYCH 538 Elementary Counseling 3(3-0)
Designed to provide methods and techniques for elementary school counselors. (*)

PSYCH 546 Assessment in Counseling 3(3-0)
This course provides students with an understanding of group and individual educational and psychometric theories and approaches to appraisal. Prerequisite: graduate standing. (S)

PSYCH 563 Psychopathology of Childhood 3(3-0)
Unique conceptual models of etiology, assessment, and therapy appropriate to psychological disorders of child-hood. Graduate students complete an independent project and consider treatment and management techniques. Prerequisites: graduate standing, permission of instructor and PSYCH 362 or equivalent. (*)

PSYCH 591 Special Topics (1-3 VAR)
Prerequisites: graduate standing and permission of instructor. (*)

PSYCH 592 Research 3(3-0)
Designed to assist students with the knowledge and skills necessary for a consumer of research. The fundamentals of research procedure and analysis of statistics are stressed. (*)

PSYCH 595 Independent Study (1-3 VAR)
Prerequisites: graduate standing & permission of instructor. (*)

PSYCH 598 Internship 3(0-3)
Designed to provide the student with actual field work experience in counseling and guidance. (*)

READING (RDG)

UNDERGRADUATE COURSES

RDG 301 Reading and Language Arts in the Elementary School 3(3-0)
Foundations of reading and language arts including psychology of reading, language development, emergent literacy, word attack, comprehension strategies, vocabulary, hand-writing, spelling, written and oral language skills. (F,S)

RDG 310 Current Approaches to Reading and Writing Instruction 3(3-0)
Various approaches to teaching reading and writing including research findings and classroom application of the reading and writing process. Prerequisite: RDG 301 or 425. (F)

RDG 360 Practicum (1-3 VAR)
Work with small groups and individual pupils in the public school preparing materials and lessons under the supervision of a reading teacher. Applies to both elementary and secondary schools depending upon the instructor's assignment. Prerequisites: RDG 301 or 425 and initial testing in basic competencies. (F,S)

RDG 410 Teaching Rdg and Language Arts 4(4-0)
Includes reading and language arts instruction, emphasizing methods and assessment strategies to meet K-6 Colorado content standards; 30 hours of field experience. Prerequisite: admission to Education. (F,S)

RDG 425 Teaching Reading in Content Areas 3(3-0)
Reading skills, strategies and activities to improve comprehension of textual material in various content areas such as mathematics, science, literature, social sciences, and industrial education. (F,S)

RDG 431 Developing Creative Centers 1(1-0)
Involves planning, developing and implementing the use of learning centers in the classroom. Prerequisite: RDG 301 or 425. (SS)

RDG 435 Content Area Literacy 4(3-2)
Focuses on skills and strategies to improve comprehension of textual material as well as writing in various content areas; 60 hours of field experience. Prerequisite: admission to Education. (F,S)

RDG 436 New Directions in Reading Comprehension 2(2-0)
Exploration of and simulations of research-based strategies to increase students' comprehension of reading in elementary and secondary classes. Prerequisite: RDG 301 or 425. (F,SS)

RDG 437 Newspapers as a Teaching Resource 1(1-0)
Strategies and procedures for using the newspaper as a supplementary resource in content area classrooms at all grade levels (K-12). (SS)

RDG 442 Reading Across Cultures 2(2-0)
Techniques of adapting reading instruction for the linguistically and culturally different child. Problems of many minority groups are analyzed. Prerequisite: RDG 301. (S)

RDG 450 Diagnosis and Remediation of Reading Problems 3(2-3)
Diagnostic and evaluation procedures used in detecting and remediating problems and individualized instruction. Appropriate for elementary and secondary teachers. Field experience required. Admission to teacher program required. Prerequisite: RDG 301 or 425. (F,S)

RDG 491 Special Topics (1-2 VAR) (*)

RDG 495 Independent Study (1-2 VAR)
Individual projects and problem-solving experiences designed to meet students' special needs. With instructor's permission, certain program requirements may be completed through independent study. (*)

GRADUATE COURSES

RDG 510 Foundations of Reading Instruction 3(3-0)
Basic course for other graduate reading courses, including reading skills, sequence, materials, psychology of reading and relationship to other language arts. Prerequisite: graduate standing. (*)

RDG 525 Teaching Reading in the Content Area 2(2-0)
Reading skills specifically used in mathematics, science, social studies and literature, including specific techniques for teaching. Prerequisite: graduate standing. (*)

RDG 531 Developing Creative Centers 1(1-0)
Students will investigate various types of learning centers and means of successful implementation in the classroom. Development of materials, lesson plans and record-keeping systems which will result in a complete reading center. Investigation into research on effectiveness of learning centers. Prerequisite: graduate standing. (SS)

RDG 536 New Directions in Reading Comprehension 2(2-0)
Current research-based theory and practical classroom strategies and procedures for increasing comprehension of reading in elementary and secondary content area. Emphasis on open-ended, higher-order thinking skills. Prerequisite: graduate standing. (*)

RDG 537 Newspapers as a Teaching Resource 1(1-0)
Strategies and procedures for using the newspaper as a supplementary resource in content area classrooms at all grade levels (K-12). Prerequisite: graduate standing. (SS)

RDG 542 Reading Across Cultures 2(2-0)
Techniques of adapting reading instruction for the linguistically and culturally different child. Prerequisite: graduate standing. (*)

RDG 550 Diagnosis and Remediation of Reading Problems 3(2-3)
Formal and informal diagnostic procedures for the classroom teacher including standardized testing, informal inventories, close, criterion-referenced testing and Reading Miscue Inventory. Prescriptions based on diagnosis; remediation strategies applied by students. Prerequisites: a beginning reading course, graduate standing, and teacher certification or initial testing in basic competencies. (*)

RDG 552 Psycholinguistic Views of Reading: Process to Practice 2(1-3)
Introduction to psycholinguistic perspectives through analysis of oral reading errors. Reading Miscue Manual as an instrument for investigating reader's strengths and weaknesses. Strategies for remediating poor quality miscues. Prerequisites: beginning course in reading, graduate standing, and teacher certification or initial testing in basic competencies. (*)

RDG 560 Practicum 2(0-6)
Work with small groups and individual pupils in the public school preparing materials and lessons under the supervision of a reading teacher. Applied to both elementary and secondary schools depending on the instructor's assignment. Prerequisites: RDG 301 or 425, graduate standing, and teacher certification or initial testing in basic competencies. (*)

RDG 591 Special Topics (1-2 VAR)
Prerequisite: graduate standing. (*)

RDG 595 Independent Study 1(0-2)
Prerequisite: graduate standing. (*)

RECREATION (REC)

UNDERGRADUATE COURSES

REC 101 Introduction to Recreation 3(3-0)
Overview of the historical, philosophical, and behavioral basis of recreation. Assessment of individual values and recreation utilization patterns. Description of trends and employment opportunities in recreation. Prerequisite to REC 340. (F)

REC 102 Mountain Orientation 2(1-2)
An intensive one-week field experience in the Colorado mountains. Clothing and equipment selection, nutrition and rations planning, back country conservation and sanitation, navigation, and trail techniques. (*)

REC 103 Winter Orientation 2(1-2)
An intensive one-week ski tour experience in the Colorado mountains. Group dynamics, leadership, and expedition behavior. Travels hut to hut with some winter camping. Prerequisite: HP 115L or consent. (*)

REC 104 Desert Orientation 2(1-2)
An intensive one-week desert camping and backpacking experience, accompanied by nine lectures in preparation for the trip. Natural and cultural history, desert conservation, group dynamics. (*)

REC 240 Recreation Program Design 3(3-0)
Rationale supporting and methods of conducting recreation programs in a wide variety of public, private, voluntary and commercial recreation agencies. Prerequisite: REC 101. (S)

REC 249 Challenge Course Leadership 2(2-0)
Basic Skills and techniques of instructing ropes courses. Includes technical skills and group facilitation. (F,S)

REC 250 Commercial Recreation and Tourism 3(3-0)
Designing for-profit recreation programs and facilities that are linked to tourism. Practical approach to programming in a commercial setting. Prerequisite: REC 101, 240. (S)

REC 270 Outdoor Leadership I 2(1-2)
Introduction to outdoor leadership. One week intensive practicum including supervised leadership and teaching experience in basic camping, backpacking, skiing, equipment maintenance and navigation. Prerequisite: REC 102, 103, OR 104. (*)

REC 280 Foundations of Therapeutic Recreation 3(3-0)
Community and clinical recreation services for the mentally retarded, law offenders, psychologically impaired, sensory impaired, physically disabled, disadvantaged or aging. Prerequisite: REC 101. (F)

REC 350 Leadership and Ethics 3(3-0)
Addresses leadership techniques and styles, leadership theory, group dynamics, and ethical considerations in recreation. Prerequisite: REC 240. (S)

REC 360 Teaching Experiential Ed in the Outdoors 3(3-0)
Concepts and methods of outdoor education and interpretation. Students learn to teach outdoor living skills and natural history using experiential methods in an outdoor setting. Prerequisite: REC 240. (S)

REC 370 Outdoor Leadership II 2(1-2)
One-week advanced practicum in outdoor leadership. Includes responsibilities in trip planning and management, evaluation, group facilitation and processing, and natural resource agency relations. Prerequisite: REC 270. (S)

REC 375 Research and Evaluation of Recreation 3(3-0)
Provides an overview of research designs and methodologies using recreation participation data, for needs assessment and program evaluation. Prerequisite: REC 240, MATH 109, equivalent or higher. (F)

REC 381 Environmental Interpretation 3(3-0)
History, philosophy, and techniques of interpreting our natural and cultural heritage to visitors in natural resource-based parks. Addresses public, private, and non-profit agencies. (F)

REC 389 Practicum in Recreation 3(0-3)
Minimum of 150 hours of practical experience in a selected recreation agency. Prerequisite: permission of director of recreation program. (F,S,SS)

REC 470 Wilderness First Responder 2(2-0)
Provision of theory, knowledge, and skills needed for medical treatment and evacuation in the wilderness. Prerequisite: EXHP 232 and REC 370. (S/O)

REC 482 Administration of Recreation 3(3-0)
Administration and management considerations in public and voluntary recreation and leisure-oriented agencies. Contemporary issues in budget and personnel management, employee relations, management style and theory, public relations and government legislation affecting the leisure field. Prerequisite: REC 389. (F)

REC 483 Sustainable Practices 3(3-0)
Sustainable, long-term strategies for ecological survival and environmental stabilization, discussed from the perspectives of ethics, economics and political processes. Includes community research and service projects. Prerequisite: BIOL 121/121L (S)

REC 484 Outdoor Resources and Management 3(3-0)
Examination of the outdoor recreation experience, the organization of resource-based recreation management and key outdoor recreation policy issues. Prerequisite: REC 482. (F)

REC 485 Recreation Facility Design/Management 3(3-0)
Presentation of basic elements of design and management of recreational facilities, taking into account the interaction between natural resources and man-made structures. Prerequisite: REC 250. (S)

REC 491 Special Topics (1-5 VAR) (*)

REC 493 Seminar 2(2-0)
Advanced in-depth examinations of contemporary issues in leisure/recreation. Includes student-led discussions, in-depth term projects and comprehensive examinations. Interview and resumé preparation are emphasized. Prerequisite: REC 389. (S)

REC 495 Independent Study (1-5 VAR) (*)

REC 498 Internship 12(0-12)
Supervised experience with approved professionals in select recreation settings. Prerequisite: senior standing, completion of all other degree requirements, 2.500 GPA in the major, and departmental chair approval. (S/U grades) (*)

RUSSIAN (RUS)

UNDERGRADUATE COURSES

RUS 101 Introduction to Russian I 3(3-0)
Pronunciation, conversation, grammar, alphabet, easy reading and writing. (F)

RUS 102 Beginning Spoken Russian II 3(3-0)
Students are placed by the department. Practice in oral, aural, reading and writing experiences. (F,S)

RUS 201 Intermediate Russian I 5(5-0)
Grammar and vocabulary. Reading of short stories, oral and written reports. Prerequisite: RUS 102 or equivalent. (*)

RUS 202 Intermediate Russian II 5(5-0)
Prerequisite: RUS 201 or equivalent. (*)

RUS 211 Russian Conversation 2(2-0)
Intensive practice. Prerequisite: RUS 102 or equivalent. (*)

RUS 311 Advanced Russian Conversation 2(2-0)
Intensive practice. Prerequisite: RUS 211 or permission of instructor. (*)

RUS 341 Russian Short Story 2(2-0)
Selected short stories. Discussion of ideas, art and authors. Stress on both oral and written work. Prerequisite: RUS 202 or permission of instructor. (*)

SCIENCE (SCI)

UNDERGRADUATE COURSES

SCI 301 Unifying Concepts of Science 3(3-0)
Discussion of interdisciplinary science concepts and topics, including societal concerns and applications. Designed for prospective elementary teachers completing a science emphasis. Prerequisites: BIOL 100/101L and GEOL 101/101L, and CHEM 150 or PHYS 150, and completion of 9 credit hours of approves science concentration electives. (F)

SOCIAL SCIENCE (SOCSC)

UNDERGRADUATE COURSES

SOCSC 151 Society and Technology 3(3-0)
Role of technology as a prime factor in changing social and political institutions. Addresses technology as the systematic application of organized knowledge and material tools to the extension of human faculties. (*)

SOCSC 208 Afro-American Heritage 3(3-0)
Analysis of black cultural experiences from African origins and civilization to the present. (*)

SOCSC 209 Blacks in America Today 2(2-0)
Analysis of blacks in today's milieu including problem areas and contemporary issues. (*)

SOCSC 493 Seminar 2(2-0)
Various problems within the realm of social science utilizing an integrated approach. For majors in broad area social science disciplines. (*)

SOCSC 591 Special Topics 2(2-0)
Topics identified by subtitles taught. Prerequisite: graduate standing. (*)

SOCSC 593 Seminar 2(2-0)
Various problems within the realm of social science, utilizing an integrated approach. For majors in broad area social science disciplines. Prerequisite: graduate standing. (*)

SOCIAL WORK (SW)

UNDERGRADUATE COURSES

SW 100 Introduction to Social Work 3(3-0)
Exploration of social welfare as a basic institution in contemporary society. Introduction to the field of social work, the roles, professional skills and philosophy of practice. (*)

SW 105 (POLSC, PSYCH, SOC, WS 105) Understanding Human Diversity 3(3-0)
Americans live in a complex and diverse society. This course examines the nature, impact and strategies for dealing with diversity in personal and social contexts. (*)

SW 201 Human Behavior and Social Environment I 3(3-0)
Focus on the person in the environment, with an examination of the interrelationship of psychological, biological, social, and cultural systems and their impact on social functioning. Introduction to systems theory as an organizing framework. Prerequisites: SOC 101, PSYCH 100 and an approved human biology course. (F)

SW 202 Human Behavior and Social Environment II 3(3-0)
Focus on an understanding and analysis of larger social systems which include the family, groups, communities and organizations. Emphasis on social systems as an organizing theoretical framework for understanding social functioning and change. Prerequisite: SW 201. (S)

SW 205 Social Welfare in the United States 3(3-0)
Examines the historical development of social welfare and social work. Emphasis on social values and structures as they affect inequities and economic security in America. Pre/corequisite: SW 100. (*)

SW 210 (SOC 210) Techniques of Analysis 3(3-0)
Introduction to the methods of scientific investigation in social work. (F,S)

SW 222 Introduction to Social Work Practice 3(2-2)
Presentation of basic elements of generalist practice including professional values, as well as relationship building, communication, and interviewing skills. Volunteer placement in a human services agency. Prerequisite: SW 100; SW 202 prerequisite or corequisite. (S)

SW 230 (CS 230) Chicano: Social and Psychological Study 3(3-0)
Social and psychological forces faced in the Chicano community. (F)

SW 290 Special Projects (1-5 VAR)
Prerequisite: permission of instructor. (*)

SW 320 Human Diversity in Practice 3(3-0)
Examines the history and culture, obstacles and resources of ethnic and minority groups in the United States. Identifies skills required for "ethnic competence" in practice. Prerequisite: SW 205, 222 and upper level review. (*)

SW 322 Social Work Intervention I 3(3-0)
Elements of generalist social work practice with a focus on individuals. Assessment, intervention, evaluation, skill development and practice are emphasized. Prerequisite: SW 320 prerequisite or Corequisite. (F)

SW 323 Social Work Intervention II 3(3-0)
Elements of generalist social work practice with a focus on groups and families. Assessment, intervention, evaluation, skill development and practice are emphasized. Prerequisite: SW 322 (S)

SW 324 Social Work Intervention III 3(3-0)
Nature and scope of social work intervention at the organizational and community levels; distinctive characteristics of the community as a social system and implications for generalist practice. Prerequisite: SW 322. (S)

SW 325 (CS 325) Health in the Chicano Community 3(3-0)
Health care traditions and current health care systems in the barrio. (S)

SW 340 Social Work Theory 3(3-0)
A comparative approach to explanatory and practice theories relating to social work and the helping professions. Prerequisite: upper level review. (*)

SW 350 Social Welfare Policy 3(3-0)
Nature of social policy; process of policy formulation and analysis; factors influencing choice of social objectives within goals and values of social work profession. Prerequisite: upper level review. (*)

SW 370 (MCCNM 370) Non-Profit Organizations and Communication 3(3-0)
A seminar course using cooperative teaching that integrates theory and practice to examine the basic elements of nonprofit organizations from economic, political, and social perspectives. Prerequisite: sophomore standing. (S)

SW 430 Social Work Research 3(3-0)
Introduction and exploration of research designs and methodologies to evaluate practice, including single subject, needs assessment, and program evaluation. Prerequisite: upper level review. (*)

SW 481 Field Seminar I 3(3-0)
Taken in conjunction with agency field placement to integrate practice and theory. Corequisite: SW 488. (F)

SW 482 Field Seminar II 3(3-0)
Taken in conjunction with agency field placement to integrate practice and theory. Corequisite: SW 489. (S)

SW 488 Field Placement I 5(0-16)
Students spend 16 hours per week in practice field assignments in selected social work agencies or settings under the direct supervision of a professional social worker. Prerequisite: approved field application; Corequisite: SW 481. (F)

SW 489 Field Placement II 5(0-16)
Students spend 16 hours per week in practice field assignments in selected social work agencies or settings under the direct supervision of a professional social worker. Prerequisite: approved field application. Corequisite: SW 482. (*)

SW 490 Special Projects (1-5 VAR)
Prerequisites: social work major, prior written permission of instructor of record. (*)

SW 491 Special Topics (1-3 VAR) (*)

SW 495 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (*)

GRADUATE COURSES

SW 500 Workshop (1-6 VAR) **
Topics identified by subtitles taught. (*)

SW 501 Principles and Philosophy of Social Work 3(3-0) **
Knowledge, values, history, and philosophy of social work. Prerequisite: 18 credits of socio/behavioral sciences. (*)

SW 510 Theoretical Analysis of Small Client Systems 3(3-0)**
The place of human behavior and social environment processes in generalist social work practice. Multi-level, knowledge guided frameworks for preparing interventions with individuals and families. Pre/corequisite: SW 501 and admittance to MSW program. (*)

SW 511 Generalist Practice: Small Client Systems 3(3-0)**
Practice theory and skills related to intervention with individuals and families within a social systems framework. Communication techniques and skills, relationship skills and use of self. Prerequisite: SW 510, Corequisite SW 512. (*)

SW 512 Small Systems Skills Laboratory 1(1-0)**
Practice of social work helping skills related to all facets of the helping process. Emphasis on communication and relationship skills. Corequisite: SW 511 (*)

SW 520 Social Welfare Policy Analysis 3(3-0) **
Historical concepts, analysis, and impact of social welfare policies. Prerequisite: 18 credits of socio/behavioral sciences. (*)

SW 581 Field Seminar 1(1-0)**
Integrative seminar for the foundation year field placement of the MSW program. Prerequisite: SW 512. Corequisite: SW 588. (*)

SW 588 Field placement 5(0-15)**
Supervised agency practice supported by field seminar. Corequisite: SW 581. (SS) (S/U)

SW 591 Special Topics (1-3 VAR) **
Topics identified by subtitles taught. (*)

SW 600 Methods of Research I 3(3-0) **
Social work research; role of practitioners as consumers and initiators of research. Corequisite: SW 611 or permission of instructor. (*)

SW 601 Methods of Research II 3(3-0) **
Role of social work practitioners as consumers and initiators of research. Data analysis and computer processing in social work research. Prerequisite: SW 600. (*)

SW 610 Theoretical Analysis of Large Client Systems 3(3-0)
Socio-behavioral practice principles relevant to work with large client systems including groups, organizations and communities. Prerequisite: SW 510 (*)

SW 611 Generalist Practice: Large Client Systems 3(3-0)
Practice knowledge and skills related to intervention with large client systems, including task/action groups, organizations, and communities. Prerequisite: SW 511. (*)

SW 620 Advanced Social Welfare Policy Analysis 3(3-0)**
Application of social welfare policy analysis models. Examines normative aspects of policy analysis, program evaluation, and assessment skills. (Course required for the Master of Social Work degree offered by Colorado State University.) Prerequisite: SW 520. (*)

** These are Colorado State University courses offered at the University of Southern Colorado toward a Master of social work degree.

SOCIOLOGY (SOC)

UNDERGRADUATE COURSES

SOC 101 Introduction to Sociology 3(3-0)
The scientific study of patterns and processes of human social relations. (*)

SOC105 (POLSC,PSYCH,SW,WS105) Understanding Human Diversity 3(3-0)
Americans live in a complex and diverse society. This course examines the nature, impact and strategies for dealing with diversity in personal and social contexts. (*)

SOC 155 Minority and Ethnic Relations 3(3-0)
Sociological theories, studies, and findings concerning group maintenance and interaction in contemporary society. (*)

SOC 201 Social Problems 3(3-0)
Sociological perspectives applied to an understanding of global and domestic social problem, including the environment, corporate control, economic and political inequalities, health care, and crime. (*)

SOC 203 The Criminal Justice System 3(3-0)
This course examines origin, nature, and utilization of criminal law; policing, court adjudication and sentencing; jails and prisons; community based corrections; criminal justice policy. (*)

SOC 206 (WS 206) Gender and Society 3(3-0)
Examination and evolution of relationships between sex roles, culture, and societal institutions and processes. Includes an analysis of sexual stratification. (*)

SOC 210 (SW 210) Techniques of Analysis 3(3-0)
Introduction to the methods of scientific investigation in the social sciences. (*)

SOC 231 (PSYCH, WS 231) Marriage and Family Relationships 3(3-0)
Marriage and family from an institutional and relationship perspective; cross-cultural diversity, mate selection, marital dynamics, parenting, divorce, remarriage, emerging patterns. (*)

SOC 250 (ANTHR 250) The Sacred in Culture 3(3-0)
Concepts of the supernatural studied cross-culturally and in particular cultures. Consideration of how religion helps individuals adjust to stress and aging. (*)

SOC 252 (ANTHR 252) Culture and Personality 3(3-0)
Relationship between group processes and personality factors in a cross-cultural perspective. (*)

SOC 291 Special Topics (1-3 VAR) (*)

SOC 302 Collective Behavior and Social Movements 3(3-0)
An analysis of elementary forms of spontaneous and unstructured behavior (panics, rumors), and complex forms of more structured group phenomena (riots, social movements.) Prerequisite: SOC 101. (S)

SOC 303 Criminology 3(3-0)
The nature and causes of crime, including property, violent, corporate, and political crimes; politics of crime measurement; current and future crime control techniques. (*)

SOC 305 (WS 305) Crime and Women 3(3-0)
Exploration of social, cultural and political variables that create both women victims and women criminals. (*)

SOC 306 Delinquency and Juvenile Justice 3(3-0)
Theory and history of delinquency; relationship to family, peer groups, schools, gangs, drugs, young offenders legislation, juvenile courts and police response, youth corrections. (*)

SOC 308 Popular Culture 3(3-0)
Advertising, television, music, novels, and the news are among the topics to be investigated for their social significance. (*)

SOC 310 (ANTHR 310) Social and Cultural Theory 3(3-0)
Examine from classical to contemporary theory in sociology and anthropology. (*)

SOC 351 Social Deviance 3(3-0)
Sociological perspective on behavior defined as deviant, abnormal or socially unacceptable. Prerequisite: SOC 101. (*)

SOC 352 (PSYCH 352) Social Psychology 3(3-0)
General and applied psychological principles of the individual's interaction with a group. Prerequisite: PSYCH 100 or permission of instructor. (*)

SOC 353 Penology 3(3-0)
The history and role of corrections; correctional practice, relationship to law, prison society, working in prisons, special needs of prisoners, capital punishment, administration, privatization. Prerequisites: SOC 101 and 203. (*)

SOC 354 Urban Sociology 3(3-0)
Development of urban places; analysis of socio-economic organization, urban social forces and the consequences for individuals, groups and social institutions. (*)

SOC 355 Political Sociology 3(3-0)
Analysis of the major sociological variables associated with political decision making and other political processes. (*)

SOC 356 Social Stratification 3(3-0)
Inquire into inequalities of wealth, power, and the consequence for individuals and society. Prerequisites: SOC 101 and 310. (*)

SOC 358 Film and Society 3(3-0)
An in-depth look at the images of social life and social relationships contained in popular movies. (*)

SOC 359 Community Corrections 3(3-0)
The development and practice of probation, parole, diversion, statutory release, electronic monitoring, halfway houses, privatization. (*)

SOC 401 (ANTHR 401) Health, Culture and Society 3(3-0)
Analysis of how social, cultural, and psychological factors influence health and health care. (*)

SOC 402 (ANTHR 402) Aging, Culture and Society 3(3-0)
Cultural, sociological and psychological dimensions of aging. (*)

SOC 403 (WS 403) Human Sexuality and Social Behavior (3-0)
Sexuality and sexual conduct from a sociological and social psychological perspective. Prerequisite: junior or senior standing. (*)

SOC 404 Poverty 3(3-0)
Poverty in the United States, its measurement and extent, perpetuating conditions, lifestyle and anti-poverty programs. (*)

SOC 405 Law and Society 3(3-0)
The origins and functions of law; the social organization of legal institutions and decisions; the relationship of law to morality, justice and social change. (*)

SOC 406 Sociology of Small Groups 3(3-0)
Microsociological analysis of group structure, interaction and dynamics in institutional settings in modern society. (*)

SOC 407 (WS 407) Family Violence 3(3-0)
The extent, seriousness, and impact of the major forms of domestic violence. (*)

SOC 408 Science, Technology, and the Future 3(3-0)
Social and structural implications of science and technology as they affect society. (*)

SOC 409 Victimology 3(3-0)
Study of the victims' role in criminal transactions. Examination off individuals and groups as victims of officially defined crime, as well as other social injuries, not officially defined as crime. (*)

SOC 410 Structural and Elite Crime 3(3-0)
Examination of crimes and social injuries perpetrated by organizational structures that do physical or economic harm to the environment, their employees, and their customers. (*)

SOC 411 Police and Society 3(3-0)
The history and role of police; including patrol officers, detectives, specialty units, police discretion, women in policing, community policing, private policing, corruption, brutality, accountability. Prerequisite: SOC 101. (*)

SOC 412 Occupations and Professions 3(3-0)
Occupations and professions in modern society, including changing structures of careers, issues of expertise, impact of gender and race, the role of education. Prerequisite: SOC 101. (*)

SOC 413 Homicide 3(3-0)
Examines the rates, types, patterns, explanation, and control of homicide in the United States and selected other nations. (*)

SOC 414 Multiple Murder 3(3-0)
This course introduces the student to the sociological analysis of various forms of multicide including mass murder, spree killing, serial homicide, and domestic terrorism. (*)

SOC 415 Forensic Criminology 3(3-0)
Course introduces students to variable aspects of Medicolegal Death Investigation. Students will learn about investigating deaths caused by homicide, suicide, accidents, and natural causes. (*)

SOC 420 Criminological Theory 3(3-0)
Examination of major theories of crime and their policy implications; focus on socio-historical factors in theory development. Prerequisites: SOC 303 and 310. (*)

SOC 430 Industrial Organizations 3(3-0)
Modern industrial society, emphasis on industry as a type of social organization including roles of management and labor. (*)

SOC 431 Working in Modern America 3(3-0)
Exploration of the changing patterns, structure, and attitudes toward work in the United States today. (*)

SOC 432 Organization Theory 3(3-0)
Prevailing theoretical model of large organizations and suggested alternatives. (*)

SOC 440 Correctional Administration 3(3-0)
Major issues in correctional administration including the history and theories of corrections in the U.S. are analyzed. Prerequisite: Sociology Major. (*)

SOC 451 (ANTHR 451) Culture/Deviance/Psychopathology 3(3-0)
Analysis of the relationship between culture and the causes and manifestations of deviance and psychopathology. (*)

SOC 452 (ANTHR 452) Self and Society 3(3-0)
Examination of the self and society within sociological/anthropological theory. Special emphasis will be placed on symbolic interactionism and cross-cultural approaches. Prerequisite: SOC 101 and/or SOC/PSYCH 352 (*)

SOC 453 (WS 453) The Sociology of the Body 3(3-0)
Exploration of what it is like to live through (in/with/as) our female and male bodies. Examination of writings in the field of body studies. Prerequisite: SOC 101. (S)

SOC 490 Special Projects (1-3 VAR)
Projects identified by each faculty member in concert with his/her interests. Prerequisites: Sociology major, junior/senior. (*)

SOC 491 Special Topics (1-3 VAR) (*)

SOC 492 (ANTHR 492) Research 3(3-0)
Qualitative and quantitative methods and designs in sociological research. (*)

SOC 493 Seminar (2-4 VAR) (*)

SOC 494 Field Experience (3,4,6,12 VAR)
Practical on-the-job experience in an agency setting. Prerequisite: senior standing or permission of instructor. (*)

SOC 495 Independent Study (1-10 VAR)
Prerequisites: previous work in sociology and permission of instructor. (*)

GRADUATE COURSES

SOC 500 Workshop (1-3 VAR)
Topics to be identified by subtitles taught. Prerequisites: sociology major, graduate standing. (*)

SOC 540 Correctional Administration 3(3-0)
Major issues in correctional administration including the history and theories of corrections in the U.S. are analyzed. Prerequisite: graduate standing. (*)

SOC 590 Special Projects (1-3 VAR)
Projects identified by each faculty member in concert with his/her interests and expertise. Prerequisites: Sociology major, graduate standing. (*)

SOC 591 Special Topics (1-3 VAR)
Topics identified by subtitles taught. Prerequisite: graduate standing. (*)

SOC 595 Independent Study (1-10 VAR)
Affords students the opportunity to do independent, creative work. Prerequisite: graduate standing and permission of instructor. (*)

SPANISH (SPN)

UNDERGRADUATE COURSES

SPN 101 Beginning Spanish I 5(5-0)
Development of skills in speaking, reading and writing; an introduction to Hispanic Culture. (F,S)

SPN 102 Beginning Spanish II 5(5-0)
Development of skills in speaking reading and writing; an introduction to Hispanic Culture. Prerequisite: SPN 101 or departmental placement test. (F,S)

SPN 201 Spanish Grammar and Composition I 3(3-0)
Review of intermediate grammar and practice in writing compositions. Prerequisite: one year of college Spanish or equivalent. (F)

SPN 202 Spanish Grammar and Composition II 3(3-0)
Further study of grammar, increased emphasis on composition. Prerequisite: SPN 201 or permission of instructor. (S)

SPN 211 Intermediate Spanish Conversation I 2(1-2)
Required for Spanish minors. Students learn and practice Spanish through creative communication using an extensive vocabulary and awareness of cultural and everyday situations. Prerequisite: one year of college Spanish or equivalent. (F)

SPN 212 Intermediate Spanish Conversation II 2(1-2)
Required for Spanish majors and minors. Students use short stories and essays designed to provide a fundamental literary vocabulary with the aim of expanding oral proficiency in Spanish. Students are introduced to basic literary terms as a foundation for their upper division studies. Prerequisite: one year of college Spanish or equivalent. (S)

SPN 281 Readings in Hispanic Civilizations I 3(3-0)
Reading and discussion based on cultures of Spain. Prerequisite: one year of college Spanish or equivalent. (F)

SPN 282 Readings in Hispanic Civilizations II 3(3-0)
Reading and discussion based on Hispanic America. Prerequisite: one year of college Spanish or equivalent. (S)

SPN 301 Advanced Spanish Grammar and Conversation 3(3-0)
Required of all Spanish majors. Prerequisite: SPN 202. (F)

SPN 302 Advanced Spanish Composition and Conversation 3(3-0)
Required of all Spanish majors, except bilingual track. Prerequisite: SPN 301. (S)

SPN 311 Survey of Spanish Literature 3(3-0)
A panoramic overview of Castilian literature from the earliest works in the vernacular to the writings of the post-Franco era. Prerequisite: SPN 202. (F)

SPN 312 Survey of Spanish American Literature 3(3-0)
An introduction to the literary and cultural texts of Spanish America and their social, political, intellectual, creative and historical implications. Prerequisite: SPN 360. (S)

SPN 321 18th and 19th Century Spanish Literature 3(3-0)
The study of representative works of Spanish literature from 1700 to 1898. Prerequisite: SPN 360. (F,O)

SPN 322 Spanish American Literature from 1900 to 1950 3(3-0)
Intensive analysis of Spanish American literature of the first half of the twentieth century. Selected readings by Azuela, Quiroga, Rivera, Onetti, Borges, etc. Prerequisite: SPN 360. (F,O)

SPN 351 20th-Century Spanish Literature 3(3-0)
Critical reading of selected masterpieces of 20th-Century Spanish literature. Prerequisite: SPN 360. (S,O)

SPN 352 Contemporary Spanish American Literature 3(3-0)
Spanish American literature. Works by Carpentier, Cortazar, Neruda, Vallejo, Castellanos, etc. Prerequisite: SPN 360. (S,E)

SPN 360 Literary Theory Trends in Spanish and Spanish American Literature 3(3-0)
The application of contemporary theory to the reading of Hispanic literature. Prerequisite: SPN 202. (F)

SPN 380 Studies in Spanish Linguistics 3(3-0)
Analysis of phonology and other language patterns crucial to learning Spanish as a second or foreign language. Prerequisite: SPN 202. (S, O)

SPN 461 Cervantes 3(3-0)
The study of Cervantes, his major works and the period in which they were written. Prerequisite: SPN 360. (S,E)

SPN 462 19th Century Spanish American Literature 3(3-0)
The study of representative 19th Century writers: works by Olmedo Bello, Heredia, Palma, Prieto, Jotabeche, Isaacs, etc. Prerequisite: SPN 360. (F,E)

SPN 471 Medieval and Golden Age Spanish Literature 3(3-0)
This course is designed to give an overview of Spanish literature of the Middle Ages and Golden Age, including the evolution of the Spanish language and dominant literary genres. Prerequisite: SPN 360. (F,E)

SPN 472 Colonial Spanish American Literature 3(3-0)
An introduction to the literary and cultural texts of Spanish America before Independence. Prerequisite: SPN 360. (S,O)

SPN 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

SPN 493 Senior Seminar 3(3-0)
In-depth analysis of specific topics, themes, authors, and works in the language literatures and cultures of the Spanish -speaking world. Prerequisite: Senior standing, successful completion of the Spanish Assessment Examination, SPN 311, 312, and at least two of the following: SPN 321, 322, 352, 461, 462, 472. (S)

SPN 494 Field Experience (1-7 VAR)
Communication, lectures by writers, artists, political leaders and specialists. Visits to museums, attendance at movies, theaters and excursions. Prerequisite: two years of college Spanish and permission of instructor. (F,S)

SPN 495 Independent Study (1-3 VAR)
Specific themes which address particular problems of literature or culture. May be repeated for credit with approval of major adviser. Prerequisite: two years of college Spanish. (F,S)

SPEECH COMMUNICATION (SPCOM) UNDERGRADUATE COURSES

SPCOM 103 Speaking and Listening 3(3-0)
Introduces principles of speaking and listening with emphasis on exposition and its application to public speaking.(F,S,SS)

SPCOM 115 Speech Activity I 1(0-4)
On- and off-campus activities including intercollegiate forensic competition, programs for students and public. Communication skill and experience development. May repeat twice for credit. (F,S)

SPCOM 116 Beginning Sign Language 3(3-0)
Introduction to the fundamentals of communicative interaction with and among the deaf by means of hand symbolization. (F)

SPCOM 211 Public Speaking (2-3 VAR)
Emphasis is placed upon audience analysis, proof, and speaker credibility in order to persuade audiences. Application made through classroom presentations and analysis of models. (*)

SPCOM 212 Argumentation 2(2-0)
Argumentation focuses on the methods advocates employ to make rational decisions and to win assent to others' statements. Particular emphasis on the nature and skills of reasoned discourse. (*)

SPCOM 216 Intermediate Sign Language 3(3-0)
Study and application of the American Sign Language, including conversational skills, gestures and deaf cultures. Prerequisite: SPCOM 116 or permission of instructor. (S)

SPCOM 221 Interpersonal Communication 3(3-0)
The principles and skills of speaking applied to informal speaking situations. Topics covered include openness, genuineness, and talking appropriately to people. (*)

SPCOM 231 Oral Interpretation (2-3 VAR)
Basic principles and techniques of oral reading, designed to aid the student in discovering and sharing with an audience the meaning and feeling in literature. (*)

SPCOM 250 Introduction to Communication Disorders 2(2-0)
Survey course about major communicating disorders. Emphasis on classification and descriptions. Covers certification requirements, licensure and professional opportunities. (S)

SPCOM 260 Language Acquisition and Linguistics 3(3-0)
Normal processes of development of language in children, growth of language, including structure, comprehension, use of oral and written language, other symbolic behavior. (F)

SPCOM 261 Voice and Diction 3(3-0)
Voice improvement course for teachers, actors, broadcasters, professional speakers. Emphasis on breath support, phonation, resonation, articulation and pronunciation. Individual attention stressed. (F)

SPCOM 291 Special Topics (1-3 VAR) (*)

SPCOM 295 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (*)

SPCOM 312 Persuasion (2-3 VAR)
Examination of the principles and theories of persuasion and their application to persuasive settings. Emphasis on using language to secure belief and action. Prerequisites: SPCOM 211, 212, or permission of instructor. (*)

SPCOM 315 Speech Activity II 1(0-4)
On- and off-campus activities including intercollegiate forensic competition, programs for students and public. Continuation of SPCOM 115. May be repeated twice for credit. (F,S)

SPCOM 324 (BIOL 324) Anatomy of the Head, Neck and Chest 2(2-0)
Anatomical structures of the head, neck and chest with analysis of development and function. Prerequisite: BIOL 221 or BIOL 223. Corequisite: SPCOM 324L. (F)

SPCOM 324L (BIOL 324L) Anatomy of the Head, Neck and Chest, Computer Dissection 1(0-2)
Computer dissection and examination of the anatomical structure of the head, neck and chest. Corequisite: SPCOM 324. (F)

SPCOM 351 Articulation Disorders 2(2-0)
Causation, diagnosis and clinical management of articulation disorders. Prerequisite: SPCOM 250 or permission of instructor. (F)

SPCOM 352 Voice Disorders 2(2-0)
Causation, diagnosis and clinical management of voice disorders. Prerequisite: SPCOM 250 or permission of instructor. (F)

SPCOM 353 Stuttering 2(2-0)
Nature and theories of stuttering with an introduction to therapeutic and counseling procedures utilized in clinical management. Prerequisite: SPCOM 250 or permission of instructor. (F)

SPCOM 361 Phonetics 2(2-0)
Designed to teach the student to identify speech sounds and to transcribe them according to the International Phonetic Alphabet (IPA). Prerequisite: SPCOM 261 or permission of instructor. (S)

SPCOM 365 Basic Audiology 3(3-0)
Introduction to the field of audiology: the ears and hearing. Emphasis on initial battery testing and interpretation of test results. Overview of selected clinical diagnostic tests. Practice in hearing testing is required. Prerequisite: SPCOM 250 or permission of instructor. (F)

SPCOM 451 Aural Rehabilitation 3(3-0)
Detailed study of auditory training procedures and speech reading methods. Discussion of hearing aids included. Prerequisite: SPCOM 365 or permission of instructor. (S)

SPCOM 452 Diagnosis and Methods in Speech Pathology 2(2-0)
Clinical principles and methods with emphasis on diagnosis and evaluation. Discussion of Federal Law PL 94-142 and the Individualized Education Program (IEP) for the communicatively handicapped in the public schools. Experience with clinical tests, therapy materials and diagnostic equipment. Prerequisite: six semester hours in speech pathology or permission of instructor. (S)

SPCOM 462 Organic Disorders of Speech 3(3-0)
Nature and causes of aphasia, cerebral palsy, cleft palate, and neurological disabilities. Introduction to clinical management of these disorders. Prerequisite: six semester hours in speech pathology or permission of instructor. (S)

SPCOM 463 Language Disorders in Children 2(2-0)
Study of the cause, nature, and diagnosis of language disorders in children. Introduction to clinical management. Prerequisite: SPCOM 260 or permission of instructor. (S)

SPCOM 469 Clinical Experience in Communication Disorders 1(0-1)
Supervised clinical practice. Fifty clock hours must be completed to earn one semester hour of credit. May be repeated three times for credit. (S/U grades) Prerequisite: permission of instructor. (F,S,SS)

SPCOM 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

SPCOM 493 Seminar (1-3 VAR)
Class activity supervised by the department, centering on an advanced level of some aspect of discourse. Credit value assigned according to course objectives. Prerequisites: junior or senior standing and permission of instructor. (S)

SPCOM 495 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (*)

SPCOM 496 Cooperative Education Placement (1-4 VAR)
Arrangement between employers and faculty members to provide students with an opportunity to earn academic credit and monetary reimbursement for on-the-job training in their field of study. Two placements must occur in academic semesters and one in a summer session for the equivalent of at least 12 months employment. The student must re-enroll each placement term. Twelve credits maximum allowed toward graduation. Prerequisite: permission of instructor. (*)

GRADUATE COURSES

SPCOM 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

SPCOM 595 Independent Study (1-3 VAR)
Prerequisite: graduate standing. (*)

THEATRE (TH)

UNDERGRADUATE COURSES

TH 111 Theatre Appreciation 3(3-0)
A course emphasizing the understanding of theatre art from the audience's point of view. (*)

TH 112 Film Appreciation 3(3-0)
Helps the student understand movies. The nature of film art, its component parts, and its values are the major topics of the course. (*)

TH 370 Creative Dramatics 1(1-0)
Classroom techniques in dramatics for the teacher. (F,SS)

WOMEN'S STUDIES (WS)

UNDERGRADUATE COURSES

WS 100 Introduction to Women's Studies 3(3-0)
The course serves two purposes: (1) to train students in feminist perspective-taking, and (2) to introduce them to issues affecting women's lives using an interdisciplinary framework. (*)

WS 105 (POLSC, PSYCH, SOC, SW 105) Understanding Human Diversity 3(3-0)
Americans live in a complex and diverse society. This course examines the nature, impact, and strategies for dealing with diversity in personal and social contexts. (*)

WS 206 (SOC 206) Gender and Society 3(3-0)
Examination and evolution of relationships between sex roles, culture, and societal institutions and processes, including an analysis of sexual stratification. (*)

WS 211 (PSYCH 211) Women and Society 3(3-0)
Statistical overview of the current status of women, followed by examination of theories concerning equality of the sexes. (F)

WS 212 (PSYCH 212) Sexism and Racism in America 3(3-0)
Dynamics of prejudice and discrimination in terms of sex and race; special attention to analysis of strategies for improving relations. (S)

WS 230 (NSG 230) Women, Health and Society 3(3-0)
Introduction to women's health issues and a basic understanding of how women's health has been influenced historically, culturally and by socio-economic factors. (*)

WS 231 (PSYCH, SOC 231) Marriage, Family, and Relationships 3(3-0)
Marriage and family from an institutional and relationship perspective; cross-cultural diversity, mate selection, marital dynamics, parenting, divorce, remarriage, emerging patterns. (F,S,SS)

WS 235 (MCCNM 235) Women and Media 3(3-0)
The historical and cultural implications of the mass media's portrayal of women and the extent of their media participation from colonial to contemporary times. (*)

WS 240 (CS 240) Chicana Writers 3(3-0)
Survey of Chicana writers from the early 1900s to the present. Along with the literature, aspects of history, sociology and politics will be incorporated. (*)

WS 260 (ENG 260) Women and Literature 3(3-0)
A survey of literature written by women. Examines the ways in which women's literature both critiques and contributes to the larger culture (*)

WS 291 Special Topics (1-3 VAR) (*)

WS 301 Feminist Frameworks 3(3-0)
Explores the range of feminist theories and their connections to feminist research. (F)

WS 305 (SOC 305) Crime and Women 3(3-0)
Exploration of social, cultural and political variables that create both women victims and women criminals. (*)

WS 306 (CS 306) La Chicana 3 (3-0)
A social, cultural, and historical overview of the Chicana experience and contributions. (F,S)

WS 330 (MCCNM 330) Gender and Film 3(3-0)
A discussion course which examines gender roles in theatrical and documentary film while considering the perspective of producers, actors, and spectators and salient film theories. Prerequisite: upper division standing in MCCNM or Women's Studies. (*)

WS 335 Gender and Communication 3(3-0)
This course examines the ways that gender affects communication behaviors and helps develop an awareness of the processes that affect gender socialization and stereotyping. (*)

WS 401 (CS 401) Third World Feminisms 3(3-0)
This course focuses on Third World women's challenging views of global feminism and feminist representations of "other" women. (*)

WS 403 (SOC 403) Human Sexuality and Social Behavior 3(3-0)
Sexuality and sexual conduct from a sociological and social psychological perspective. Prerequisite: junior or senior standing. (*)

WS 407 (SOC 407) Family Violence 3(3-0)
The extent, seriousness, and impact of the major forms of domestic violence. (*).

WS 427 (HIST 427) Women in Industrializing Europe 3(3-0)
Changes and continuities for European women from the sixteenth century to the present, including work, family, sexuality, and movements for social and political change. Prerequisite: HIST 103 or permission of instructor. (*)

WS 453 (SOC 453) The Sociology of the Body 3(3-0)
Exploration of what it is like to live through (in/with/as) our female and male bodies. Examination of writings in the field of body studies. Prerequisite: SOC 101. (S)

WS 491 Special Topics (1-3 VAR)
Prerequisite: junior or senior standing with adequate preparation or permission of instructor. (*)

WS 493 Seminar 3(3-0)
Integrates classroom and experiential learning, applying theories and methods to a selected topic in a weekly seminar on women's issues. Prerequisite: WS 301 or permission of instructor. (S)

WS 495 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (*)

UNIVERSITY PERSONNEL 2001-2002

STATE BOARD OF AGRICULTURE

Esquibel, Victoria (3) ..... Pueblo
Garcia, Patrick ..... Pueblo
Grant, Patrick ..... Denver
Hamstra, Donald A. ..... Brighton
Hoots, Michael (3) ..... Pueblo
Hunter, Doreen ..... Durango
Kunz, Daniel T. ..... Fort Collins
Pettigrew, Ronald W. (1) ..... Durango
Reeves, Brent (2) ..... Fort Collins
Sandoval, Paula E ..... Denver
Scott, David ..... Durango
Segelke, Wesley A. ..... Denver
Shoemaker, Jeff ..... Denver
Warren, William W. ..... Denver
Washington, Reginald L. ..... Denver

(1) Representatives from Fort Lewis College
(2) Representatives from Colorado State University
(3) Representatives from the University of Southern Colorado

One faculty member and one student representative from each institution sits on board as "non-voting"

COLORADO STATE UNIVERSITY SYSTEM

Yates, Albert C., chancellor of the CSUS System and president for Colorado State University

Bowditch, Ed, vice chancellor/Administrative Affairs, CSUS

Clark, David G., vice chancellor/Academic Affairs, CSUS

Williams, Mike S., associate general counsel

ADMINISTRATIVE OFFICES

OFFICE OF THE PRESIDENT

Guerrero, Tito III, president

Aragon, Andrea, assistant director, Alumni Relations

Folda, Joe, interim director, Athletics

Freeman, Terry, director, Communication Services

Gutierrez, Gloria, executive assistant to the president

Trujillo-Sánchez, Gloria, director, Human Resources/Affirmative Action

Ward, William T. III, director, Development and Alumni Relations

OFFICE OF THE PROVOST

Montgomery, Barbara, provost, vice president for Academic Affairs

Aichele, Ron, director, Honors Program

Allen, Ernest E., dean, College of Science and Mathematics

Anastassiou, Pamela, director, Admissions and Records/Registrar

Arnold-Meadows, Patricia J., dean, Pueblo School for the Arts and Sciences

Carrasco, Hector, dean, College of Engineering, Education, and Professional Studies

Chang, Lin, director, Institutional Research & Analysis

Crawford, Linda, executive assistant to the provost

Drabier, Renée, chief technology officer, Information Technology Services

Druelinger, Mel, director, Research & Sponsored Programs

Dukes, Gary L., dean, Student Life and Development

Fuller, Rex, dean, Hasan School of Business

Maldonado, Carlos, director, Center for International Programs

Marquesen, Victoria, associate dean, College of Education, Engineering, and Professional Studies

Meyer, Russell J., dean, College of Humanities and Social Sciences

Moore, Beverly, dean, University Library

Morken, Carol, director, Academic Advising Center

Proctor, Kristina, special assistant to the provost

Stoker, Cheryl, director, USC Learning Center, Disabilities Resources and General Education Assessment

OFFICE OF THE VICE PRESIDENT FOR FINANCE AND ADMINISTRATION

Borge, Valerie, vice president for Finance and Administration

Davis, Lorna, assistant director of budgets

Gutierrez, Anita, executive assistant to the Vice President

Morales, Ofelia, associate director, Financial Services

Ortega, Don, controller

Rolater, Tom, director, Purchasing

Sack, Robert, director, Facilities, Planning and Construction

Tearpak, Michael, director, Safety and Environmental Health

Zimmerman, Bruce, director, Auxiliary Services

ADMINISTRATIVE FACULTY

Allen, Ernest E., (1963) dean of the College of Science and Mathematics and professor of mathematics; BS, Wayne State University; BS, MA, Michigan State University; MATM, University of Detroit; Ed.D. University of Northern Colorado

Borge, Valerie, (1994) vice president for Finance and Administration; BS, MS, Colorado State University; CPA

Carrasco, Hector, R. (1993) dean of Education, Engineering, and Professional Studies and professor of engineering; BSME, MSME, University of Texas at El Paso; Ph.D., Teas A&M University

Dukes, Gary L. (2000) dean of Student Life and Development; BS, Oregon State University; M.Ed., University of Vermont; Ph.D. University of Washington

Fuller, Rex D. (2000) dean of Hasan School of Business and professor of economics; BA, California State University, Chico; Ph.D., University of Utah

Guerrero, Tito, III (1997) president, BS, Texas A&M; M.Ed., University of North Texas; Ed.D., Harvard University

Marquesen, Victoria (1999) associate dean, Education, Engineering, and Professional Studies; BA, Colorado College; MA, University of Kansas; Ph.D., University of Kansas

Meyer, Russell J. (2000) dean of College of Humanities and Social Sciences; BA, MA, Ohio State University; Ph.D., University of Minnesota

Montgomery, Barbara M. (2001) provost and vice president for Academic Affairs; BS, Ball State University; MA, Memphis State University; Ph.D., Purdue University

Moore, Beverly A. (1970) dean University Library and professor of Library Services; AA, Hutchinson Junior College; BA, University of Northern Colorado; MA, University of Denver

PROFESSIONAL STAFF

Acosta, Katherine (1995) project coordinator, Upward Bound

Ahlers, Shawn L. (1997) manager of technology support, Information Technology Services; BS, University of Southern Colorado

Alley, Lorna (1976) assistant director of budgets, office of the Vice President for Finance and Planning; BSBA, University of Southern Colorado

Anastassiou, Pamela (1996) director, Admissions and Records; BA, Pittsburg State University; MA, University of Kansas

Aragon, Andrea (1999) assistant director, Alumni Relations; BS, University of Southern Colorado

Arnold-Meadows, Patricia J. (1999) dean of the Pueblo School for the Arts and Sciences; BA, Tabor College; MA, University of Colorado; Ph.D., University of Colorado

Blowers, Marsha E. (1996) head softball coach; Athletics; BA, University of Texas, Arlington; MS, Sam Houston State University

Borland, Barbara, (1994) Administrator, Sociology Program, Continuing Education

Brewer, Jack (1997) director, Career Center; BS, MS, Indiana State University

Brewer, Margaret (1997) accounts receivable specialist, Financial Services; BSBA, University of Southern Colorado

Brito, Mary (1996) coordinator/adviser, Lamar EOC Office, Southern Colorado Educational Opportunity Center; AS, Lamar Community College; BA, MS, Regis University

Burciago, Alfredo (1999) counselor, Financial Services; BA, University of Southern Colorado

Burciago, Armando (1999) counselor, Admissions; BA, University of Southern Colorado

Carpio, Eric (1996) transfer coordinator, Admissions; BS, Colorado State University

Chacon, Francisco (2000) director, Student Activities; MBA, University of New Mexico

Chang, Lin (2000) director, Institutional Research and Analysis; BA, Fu Jen University (Taiwan); MA, Michigan State University; Ph.D., Michigan State University

Clark, Patrick (1998) Student Development Specialist; BS, University of Utah; MA, Northern Arizona University

Coontz, Mary M. (1991) raptor biologist, program specialist, Greenway and Nature Center of Pueblo; BA, Berea College

Crawford, Linda (1988) executive assistant to the Provost and Vice President for Academic Affairs, Provost's Office; BS, University of Southern Colorado

Drabier, Renee (1998) chief technology officer, Information Technology Services; BA, University of Kansas; MA, University of Texas at San Antonio; Ph.D., Texas A&M University

Eberhart, Pat (1996) assistant basketball coach, pool director, Athletics; BA, Adams State; MA, Colorado Christian

Dukes, Gary (2000) dean, Student Life and Development; BS, Oregon State University; M.Ed., University of Vermont; Ph.D., University of Washington

Fitzgerald, Lynn (1997) assistant women's baseball coach, Athletics; BS, University of Wisconsin; MS, North Eastern State University, Oklahoma

Folda, Joseph (1987) interim athletic director and head coach, men's basketball, Athletics; BS, University of Northern Colorado; M.Ed., Eastern Washington University

Freeman, Terry (1990) director, Communication Services; BS, University of Southern Colorado

Fritz, Maureen K. (1996) assistant softball coach, Athletics; BA, University of Texas, Arlington; MA, Sam Houston State University

Gutierrez, Anita (1973) executive assistant to the Vice President

Fuller, Susan (2000) counselor, Financial Services; BS, California State University, Chico

Gjerde, Michelle B. (1997) employment services specialist, Career Center; BA, University of Southern Colorado

Gutierrez, Gloria (1976) executive assistant to the President, President's Office; BS, University of Southern Colorado

Hatton-Montoya, Sharon (1994) writing center coordinator, Learning Center/English Department; BA, University of Southern Colorado

Herrera, Veronica (1995) coordinator, Colorado Springs EOC, Southern Colorado Educational Opportunity Center; BSW, University of Southern Colorado

Hunter, Patricia A. (2000) director, Student Support Services; BS, M.Ed., Edinboro State University (Pennsylvania); A.B.D. Educational Leadership and Policy Studies, University of Northern Colorado

James, Paul (1994) athletic trainer, Athletics; BS, University of Utah

Jaramillo, John Paul (1999) Online Writing Lab (OWL) coordinator, BA, University of Southern Colorado

Jensen, Jennifer (1992) associate director, Admissions; BS, University of Southern Colorado

Kelly, Todd (1991) sports information director, Athletics; BS, University of Southern Colorado

King, June (1975) director, Colorado Music Fest, associate director of Pueblo Symphony; BS, Southern Colorado State College

Krigel, Belinda (1988) manager, UNIX Systems, Information Technology Services; BS, MS, Arkansas State University

Laino, Heidi (1997) coordinator, International Recruitment; BA/BS, University of Southern Colorado

Logan, Chad (2000) counselor, Admissions; BS, University of Southern Colorado

Lovato, Sam (1999) radio station manager; BS, University of Southern Colorado; MA, University of Northern Colorado

Lundahl, Sandra L. (1985) manager, scholarship funds; AAS, University of Southern Colorado

Maldonado, Carlos (1990) director, International Programs; BS, University of New Mexico

Martinez-Martinez, Deborah A. (1985) assistant director, Admissions; BA, University of Southern Colorado; MA, University of Northern Colorado, Ph.D., University of Colorado-Denver

Masterson, Daniel (1998) symphony coordinator; BS, University of Southern Colorado

McGettigan, Timothy (2000) assistant professor of sociology; BA, University of California, Santa Barbara; MS, Ph.D., Washington State University

McHugh, Kathryn M. (1981) foundation manager, USC Foundation; BSBA, University of Southern Colorado

Medina, Mike (1988) project director, Upward Bound; AA, Trinidad State Junior College; BA, MA, Adams State College

Medina, Tammie L. (1996) assistant to director, Auxiliary Services; BS, University of Southern Colorado

Melin, Carl (1985) associate director, International Admissions; BA, Adams State College; MS, University of Southern Colorado

Morales, Ofelia (1995) associate director, Financial Services; BSW, University of Southern Colorado

Morken, Carol (1992) director, Academic Advising Center; BS, University of Southern Colorado; M.Ed., University of San Diego

Morris, Raymond (1996) interlibrary loan assistant; University Library; BS, Colorado State University

Moses, Douglas J. (1985) head coach, wrestling, Athletics; BA, Adams State College; MA, Colorado State University

Nava, Roman (2000) accounting manager, Financial Services; BS, University of Southern Colorado

Ornelas, Henry (2000) interim project specialist; BS, University of Southern Colorado

Ortega, Donald M. (1991) controller, Financial Services; BA, College of Santa Fe

Pando-Sanchez, Anita (1996) project counselor, Upward Bound; BA, University of Colorado and University of Southern Colorado; MA, Adam State College

Paul, James (1992) trainer, Athletics; BS, University of Utah

Rolater, Tom (1999) director, Purchasing; BBA, Southwest Texas State University, San Marcos

Sack, Robert (2000) director, Facilities, Planning and Construction; Bachelor of Architecture, University of Nebraska

Sanchez, Stan (1994) head baseball coach, Athletics; BS, California State University; MA, Azusa Pacific University

Sandsmark, Timothy B. (1994) director, Greenway and Nature Center of Pueblo; BBA, University of Wisconsin at Eau Claire; MA, University of Northern Colorado; ABD, Colorado State University

Scott, Bob (1999) men's and women's tennis coach, Athletics; BA, University of Southern Colorado

Shoji, Thomas (1994) women's volleyball coach, Athletics; BA, University of California; MA, University of California at Santa Barbara

Silver-Chacon, Loisann (1994) counselor, Upward Bound; BA, George Washington University; MA, Antioch University

Sissom, Lia (1996) learning & student success specialist, Hasan School of Business; BA, MS, Western Illinois University

Smith, Nora (1999) assistant controller, Financial Services; BS, University of Southern Colorado

Stanley, Roy (1994) head coach, men's and women's soccer, Athletics; BA, Princeton University; MA, University of Tulsa

Stoker, Cheryl L. (1998) director, USC Learning Center, Disabilities Resources and General Education Assessment; BA, University of Idaho; MA, Ed.D., Temple University

Stubenrouch, Roger E. (1983) director, Continuing Education; BS, Troy State University; MS, University of Northern Colorado

Tearpak, Michael (2001) director, Safety and Environmental Health; BS, University of Southern Colorado

Tenorio, Victor (2000) educational development specialist, Student Support Services; BS, University of Southern Colorado

Tortessi, Barbara, (1975) associate director, Records; BS, University of Southern Colorado

Trujillo, Brenda (1996) tutor/study skills coordinator, Student Support Services; AAS, Pueblo Community College; BA, Regis University

Trujillo-Sánchez, Gloria (1994) director of Human Resources/Affirmative Action; BA, Loretto Heights College; MA, Norwich, University, Ph.D., Union Institute

Valdez-Hall, Vivian (1994) induction coordinator, Teacher Education Program; BA, University of Southern Colorado; MA, Lesley College

Vorndam, Margaret E. (2001) academic web developer, Information Technology Services; BS, State University of New York at Cortland; MS, University of Montana

Vorndam, Rodney N. (2000) instructional development support technician; BS, Wayland Baptist University

Ward, III, William T. (1993) director, Development and Alumni Relations; BS, Colorado State University

Watkins, Tamara (1998) coordinator, Math Learning Center; BA, Colorado School of Mines; MSANS, University of Southern Colorado

Watson, Kimberly A. (2000) director, Residence Life and Housing; MS, Western Illinois University

Weaver, Kelly K. (1998) program manager, Continuing Education, Mcguire AFB

Welch, Jennifer (1998) academic improvement plan coordinator; BS, University of Southern Colorado

Whatley, Nancy (1988) coordinator/adviser, Educational Opportunity Center; AS, Otero Junior College

Williams, Annie (1994) student adviser, center for International Programs; BA, MBA, University of Southern Colorado

Winn, Sherry M. (1997) head women's basketball coach, Athletics; BA, University of Charleston; MS, University of Ohio

Zarr, Jay (1990) director, Experiential Learning Center; BS, University of Southern Colorado; MS, Mankato State University

Zimmerman, Bruce (1986) director, Auxiliary Services; BS, Rhode Island College; MS, Indiana University

RANKED FACULTY

The following individuals were ranked faculty members in the 2001-2002 academic year. The date in parenthesis indicates the initial year of regular appointment to the ranked faculty.

Abrahamson, Gayle (1985) assistant professor of library services; AA, Golden Valley Lutheran College; BA, Concordia College; MAR, Iliff School of Theology; MA, University of Denver

Afanassieva, Veronika (1999) Veronika String Quartet; BA, State Music College, Russia; MM, Gnesins' Russian Academy of Music; MM, Miami University of Ohio

Ahmadian, Ahmad (1985) associate professor of management; BA, Tehran University; MBA, Ph.D., North Texas State

Aichele, Ronald G. (1972) professor of philosophy; BA, MA, Ph.D., University of Missouri

Amundson, Kathryn A. (1999) associate professor of social work; BA, Luther College; M.Ed., Xavier University; MSW, University of Minnesota; Ph.D., University of Denver

Anderson, Deyrol E. (1983) professor of mass communications; BA, Washington State University; MA, San Francisco State University; Ph.D., University of Denver

Avína, Maya (1995) assistant professor or art; BA, Humboldt State University; MFA, University of California at Santa Barbara

Baca, Judy M. (1981) associate professor of social work, coordinator of Chicano/a studies; BS, University of Southern Colorado; MSW, Arizona State University

Bailey, Wade H. (1993) assistant professor of mechanical engineering technology; BS, West Virginia University; MS, Air Force Institute of Technology

Barber, Margaret (1995) assistant professor of English, BA, MA, Ph.D., Texas Christian University

Barnett, Janet H. (1990) associate professor of mathematics; BS, Colorado State University; MA, Ph.D., University of Colorado

Beck, Michael J. (1970) professor of music; BA, University of Southern Colorado; MA, Western State College; DA, University of Northern Colorado

Berardi, Gayle K. (1994) associate professor of political science; BA, MA, University of Colorado at Colorado Springs; Ph.D., University of Colorado

Billington, Peter J. (1989) professor of management; BS, Worchester Polytechnic Institute; MBA, Northeastern University; Ph.D., Cornell University

Bonetti, Sandra J. (1991) associate professor of chemistry ; BS, Ph.D., Georgia Institute of Technology

Borisova, Roza (1999) Veronika String Quartet; BA, Ioshkar-Ola State Music College, Russia; MM, Gnesins' Russian Academy of Music; DMA, State Institute of Music and Pedogogy, Russia; MM, Miami University of Ohio

Borton, John M. (1983) associate professor of computer information systems; BA, Purdue University; MS, University of Northern Colorado; Ph.D., University of Colorado

Bory, Roseanne (1984) associate professor of library services ; BA, Drake University; MA, University of Iowa; MA, University of Denver

Brown, Kathy (1995) associate professor of nursing; BSN, University of Phoenix; MSN, University of Colorado

Browne, James H. (1991) professor of management; BA, MA, Western Illinois University; Ph.D., University of Illinois

Calhoun-Stuber, Susan (1994) assistant professor of sociology; BA, Knox College; MA, Ph.D., University of Denver

Caldwell, Charles (1998) visiting assistant professor of chemistry; BS, Colorado School of Mines; MS, University of Southern Colorado, Ph.D., Duke University

Cameron, James T. (1970) professor of psychology; BA, The Colorado College; MA, Ph.D., University of Colorado

Caprioglio, Daniel (1993) associate professor of biology; BA, University of California at Los Angeles; Ph.D., North Carolina State University

Caprioglio, Helen M. (1995) associate professor of biology; BS, MS, Oregon State University; Ph.D., North Carolina State University

Carter, Colette (1994) assistant professor of political science; BA, Incarnate Word College; MA, Catholic University; Ph.D., University of Washington

Chacon, Paul R. (1990) associate professor of mathematics; BS, University of British Columbia; Ph.D., University of Washington

Chandler, Kris (1999) assistant professor of computer information systems; BSBA, University of Southern Colorado; MBA, University of Arkansas; Ph.D., Colorado State University

Chen, Frank T. (1982) associate professor of mechanical engineering technology; BSME, Chung Cheng College of Science and Engineering, Taiwan; MSME, Clemson University; Ph.D., North Carolina State University

Cheng, Joseph K. (1973) professor of civil engineering technology; BS, Taiwan Christian College; MS, University of Massachusetts; Ph.D., University of Oklahoma

Chi, Jacob (1997) associate professor of music, conductor of the symphony ;BA, Siena Heights College; MA, School of Music, University of Michigan; PH.D., Michigan State University

Cobián, Dora Luz (1995) associate professor of Spanish; BA, MA, University of California at San Diego; Ph.D., University of California at Riverside

Covi, Silvio (1986) professor of French and Italian; B.Th., Universitas Urbaniana, Rome, Italy; MA, Ph.D., State University of New York at Buffalo

Dallam, George (1999) assistant professor of exercise science and health promotion; BS, MS, University of Arizona; Ph.D., University of New Mexico

Dalton, Dennis (1993) associate professor of art; BA, University of Toledo; MFA, University of Utah

Damron-Martinez, Datha (2001) assistant professor of marketing; BS, University of Albuquerque/College of Santa Fe; MBA, Central Missouri State University; MA, Ph.D., New Mexico State University

Darby, Ronald L. (1991) associate professor of automotive parts and service management; AAS, BS, Southern Colorado State College; MA, University of Southern Colorado

Depalma, Jude (1997) assistant professor of electronics engineering technology and engineering; BSEE, University of Florida; MSEE, Purdue University; Ph.D., Colorado State University

DePalma, Ruth (1995) associate professor of nursing; BSN, John Hopkins University; MSN, University of Florida

Derr, James, B. (1984) professor of mathematics; BA, College of St. Thomas; Ph.D., Michigan State University

Dhatt, Yashwant S. (1983) associate professor of finance; B.COMM., MA, University of Delhi; MBA, McGill University; Ph.D., Georgia State University

Diawara, Moussa (1993) associate professor of biology; BS, Institut Polytechnique Rural de Katibougeu, Mali, West Africa; MS, Ph.D., University of Georgia

Dillon, David (1998) visiting assistant professor of chemistry; BS, MS, East Texas State University

Dorsch, John A. (1965) professor of biology; BA, Willamette University; MS, Ph.D., Oregon State University

Driscoll, Donald J. (1965) professor of philosophy; BA, Sophia University; MA, Ph.D., New School for Social Research

Druelinger, Melvin L. (1984) professor of chemistry; BS, Indiana University; Ph.D., University of Wisconsin

Duncan, James L. (1958) professor of music; BM, Central College; MM, Eastman School of Music

Duncan, Kevin C. (1994) professor of economics; BA, University of California; Ph.D., University of Utah

DuPertuis, Leslee (1998) assistant professor of speech communications; BA, California State University, Fresno; MS, California State University, Sacramento; Ph.D., University of California, Davis

Ebersole, Samuel (1990) associate professor of mass communications; BA, Southern California College; MA, Ph.D., Regent University

Eisenbeis, Richard H. (1988) professor of management; BA, Lafayette College; MS, University of Montana; MS, Ph.D., The University of Arizona

Florensa, Eva F. (2001) assistant professor of Spanish; MA, University of Barcelona; Ph.D., University of Pennsylvania

Fogelquist, James D. (1993) associate professor of Spanish; BA, University of California at Los Angeles; MA, Ph.D., Yale University

Foust, Carol (2001) associate professor and department chair of Exercise Science, Health Promotion, and Recreation; BS, MS, University of New Mexico; M.Ed., Lamar University; Ph.D., Texas A&M University

Forsyth, Dan W. (1983) professor of anthropology; BA, University of California, MA, University of Chicago; Ph.D., University of California at San Diego

Frank, Katherine P. (2001) assistant professor of English; BA, Bates College; MA, Ph.D., University of Washington

Frankmann, Sandra (1993) associate professor of psychology; BA, Simmons College; Ph.D., University of Washington at Seattle

Fraser, Jane (1998) professor and department chair, engineering; BA, Swarthmore College; MS, Ph.D., University of California at Berkeley

Garibova, Karine (1999) Veronika String Quartet; BA, MM, Gnesins' Russian Academy of Music; DMA, Gnesins' State Institute of Music, Russia; MM, Miami University of Ohio

Gomme, Ian (1995) associate professor of sociology; BA, University of Waterloo; B.Ed., University of Queens; M.Ed., University of Toronto; MA, Guelph; Ed.D, University of Toronto

Gonzales, David (1995) associate professor of biology; BS, Metro State, MS, Ph.D., University of Wisconsin

Gonzales, Felix (1992) assistant professor of social work; BA, University of Southern Colorado; MSW, Arizona State University

Gosavi, Abhjit (1999) assistant professor of engineering; BS, Jadavpur University, Calcutta, India; MS, Indian Institute of Technology, Madras, India; Ph.D., University of South Florida, Tampa

Green, Pearl (Penny) (1982) assistant professor of sociology; BA, City College of New York; MA, Ph.D., Southern Illinois University

Griffin, John R. (1963) professor of English; BS, MS, Xavier University; Ph.D., Ottawa University; Ph.D., Trinity College, Dublin, Ireland

Gutierrez, James M. (1978) assistant professor of education; BA, University of Southern Colorado; MA, New Mexico Highlands University

Hanks, Bettye Sue (1994) assistant professor of business administration; BS, MS, Henderson State University; Ed.D., University of Arkansas

Hansen, Richard (1993) associate professor of art; BA, College of William and Mary; MLA, University of Colorado

Hansen, Victoria (1993) associate professor of art; BA, College of William and Mary; MFA, Kansas State University

Herrmann, Scott J. (1968) professor of biology; BS, Northern Illinois University; Ph.D., University of Colorado

Hirth, Alan (1976) assistant professor of civil engineering technology; BA, University of Colorado

Holderness, Ward L. (1969) assistant professor of civil engineering technology; AAS, BS, Southern Colorado State College

Hoots, Michael L. (1994) assistant professor of facilities management and technology; BS, University of Notre Dame; MS, Rensselaer Polytechnic Institute

Hudock, Sandra (1997) assistant professor of library services; BA, Gordon College; MSLS, University of Kentucky

Huff, Richard A. (1997) assistant professor, computer information systems; BS, San Diego State University; MS, North Texas State University; Ph.D., University of North Texas

Huffine, William B. (1995) assistant professor of electronic engineering technology; BSEE, California State Polytechnic University; MSEE, University of California at Santa Barbara

Jaksic, Nebojsa I. (2000) assistant professor of engineering; BSEE, Belgrade University, Belgrade, Yugoslavia; MSEE, MSISE, Ph.D., Ohio State University

Janos, Vicky (1990) assistant professor of nursing; BSN, University of Colorado; MSN, University of Colorado at Denver

Jensen, Carl G. (1970) professor of art; BS, Indiana Central College; MAT, Indiana University; MFA, University of New Mexico

Johnson, Roger W. (1977) professor of mathematics; BS, Fort Lewis College; MS, DA, Idaho State University

Johnston, Rhonda, (1993) assistant professor of nursing; BS, University of Phoenix; MSW, University of Colorado

Joyce, Richard (1995) assistant professor of mass communications; BA, University of Scranton, Pennsylvania; BS, University of Southern Colorado; MA, University of Colorado at Boulder

Keller, Robert L. (1974) professor of sociology; BA, University of Colorado; MS Colorado State University; Ph.D., University of Montana

Keplinger, David (2000) assistant professor of English; BA, MFA, Pennsylvania State University

Knight, Douglas W. (1980) professor of computer information systems; BS, MS, Ph.D., Arizona State University

Krinsky, Richard (1968) professor of psychology; BA, MA, Michigan State University; Ph.D., University of Washington

Krinsky, Suzanne G. (1968) professor of psychology; BA, Wayne State University; MA, Michigan State University; Ph.D., University of Washington

Kulkosky, Paul J. (1984) professor of psychology; BA, Columbia College; MA, Columbia University; Ph.D., University of Washington

Kuntzman, Ann (1993) assistant professor of library services; BA, University of Wyoming; MLS, Brigham Young University

Lassila, Kathy (1996) assistant professor , computer information systems; BA, University of Wisconsin at Eau Claire; MBA, University of Wisconsin at Milwaukee; Ph.D., University of Colorado at Boulder

Lehmpuhl, David (1998) assistant professor of chemistry; BA, University of Colorado at Colorado Springs; Ph.D., University of Colorado at Boulder

Levy, Patricia (1991) assistant professor of psychology; BS, University of Bridgeport; MA, University of Colorado; Ph.D., Oklahoma State University

Loats, Carol (1993) associate professor of history; BA, College of Wooster; MA, University of Colorado; MA, University of Northern Colorado; Ph.D., University of Colorado

Louisell, James (1989) associate professor of mathematics; BS, Ph.D., University of Minnesota

Lundberg, Bruce (1993) associate professor of mathematics; BS, Grand Canyon University; MA, Arizona State University; MA, Fuller Theological Seminary; Ph.D., Colorado State University

Madrid, Dennis L. (1976) professor of psychology; BA, University of Southern Colorado; MS, New Mexico Highlands University; Ph.D., University of California at Santa Barbara

Martinez, Lee Anne (1992) associate professor of biology; BA, University of California at Santa Barbara; MA, University of California at Santa Cruz, Ph.D., Cornell University

Martinez, Rubén (1997) professor of sociology and Chicano studies; BS, University of Southern Colorado; MA, Arizona State University, Tempe; Ph.D., University of California at Riverside

Massey, Frank A. (1963) associate professor of engineering; BIE, BBA, MS, University of Minnesota; MFA, University of Colorado; Ph.D., University of Wisconsin

McGettigan, Timothy (2000) assistant professor of sociology; BA, University of California, Santa Barbara; MA, Ph.D., Washington State University

Mertlich, Gary (1999) assistant professor of social work; BSN, University of Utah; MS, University of Utah; MSW, Marywood University; Ph.D., Case Western Reserve University

Miliaeva, Olga (1999) Veronika String Quartet; BA, MM, Gnesins' Russian Academy of Music; MM, Miami University of Ohio

Miller, Glenn W. (1974) assistant professor of mass communications; BA, University of Southern Colorado; MA, University of Denver

Mo, Suchoon S. (1973) professor of psychology; BS, Idaho State College; MA, Indiana University; Ph.D., University of Pennsylvania

Moffeit, Tony A. (1976) professor of library services; BS, Oklahoma State University; MLS, University of Oklahoma

Mullen, Jennifer (1994) associate professor of mass communications; BA, University of Southern Colorado; MA, University of Northern Colorado

Nicholl, Larimore R. (1968) assistant professor of philosophy; BA, The Colorado College; MA, Claremont Graduate School

Nichols, Janet G. (1977) assistant professor of mathematics; BA, Adelphi University; MS, Lehigh University

Noreiko, Gary (1984) associate professor of finance; BA, MA, California State University at Los Angeles; Ph.D., University of Southern California

O'Leary Emmett (1972) associate professor speech communication; BA, Adams State College; MA, Central Michigan University ; Ph.D., University of Nebraska

Orman, Patricia (1978) associate professor of mass communications; BA, University of New Hampshire; MA, University of Northern Colorado

Orr, Gilbert F. (1977) associate professor of mathematics; BA, St. John's University; MS, Ph.D., University of Miami

Osborn, Neal L. (1965) professor of biology; BA, Baldwin-Wallace College; BA, University of Southern Colorado, MS, Ph.D., University of New Mexico

Otis Pauletta (1988) professor of political science; BA, MA, University of Northern Colorado , MA, Ph.D., University of Denver

Paulson, Shannon (1998) assistant professor, Library

Piazza, Jenny (1996) professor of education; BA, Park College; MA, Adams State College; Ed.D., Oklahoma State University

Pratarelli, Marc E. (1999) associate professor of psychology; BA, University of California , San Diego; MA, Ph.D., University of Southern California

Proctor, Kristina G. (1989) special assistant to the Provost and professor of chemistry; BS, University of Southern Colorado; Ph.D., Colorado State University

Rathbone, Steven (2000) assistant professor athletic training, EXHPR; BS, Lee College; MS Indiana State University; Ph.D., Middle Tennessee State University

Rees, Jonathan (1999) assistant professor of history; BA, University of Pennsylvania; MA, Ph.D., University of Wisconsin-Madison

Regassa, Hailu (1989) associate professor of accounting; BBA, Haile Selassie University, Ethiopia; MBA, Ph.D., University of Oregon

Rodríguez-Arenas, Flor María (1995) associate professor of Spanish; Universidad Pedagógica Nacional, Bogotá, Licenciatura; Instituto Caro y Cuervo, Bogotá, Post graduate Studies; MA, University of Michigan, Ann Arbor; Ph.D., University of Texas at Austin

Ryan, John E. (1980) professor of education; BA, University of California at Los Angeles; MA, California State University at Northridge; MA, Ph.D., Claremont Graduate School

Sabo, Barbara J. (1974) professor of nursing; RN, St. Mary Corwin Hospital of Nursing; AA, Pueblo College; BS, MS, Ph.D., University of Colorado

Sage, Judith A. (1999) assistant professor of accounting; BS, MA, Western Michigan University; Ph.D., Oklahoma State University; CPA

Sandoval, David A. (1980) professor Chicano studies and history; BS, Eastern New Mexico University; MA, Southern Methodist University; Ph.D., University of Utah

Sarper, Hüseyin (1988) professor of engineering; BS, The Pennsylvania State University; MS, Ph.D., Virginia Polytechnic Institute and State University

Sauer, Wolfgang (1993) associate professor of mechanical engineering technology; Diplom Ingenieur, Technische Universität Berlin, Germany; Ph.D., Carnegie-Mellon University

Saul, Roger E. (1983) associate professor of chemistry; BS, MS, Michigan Technological University; DA, University of Northern Colorado

Sefcovic, Paul A. (1989) associate professor of automotive parts and service management; AAS, BS, MA, University of Southern Colorado

Seilheimer, Jack A. (1963) professor of biology, BS, Western Michigan University; Ph.D., University of Kentucky, Louisville

Seitz, Clayton R. (1999) assistant professor of computer information systems; BS, University of Maryland, College Park, Maryland; MAS, Johns Hopkins University, Baltimore, Maryland

Senatore, Margaret L. (1964) assistant professor of English; BA, The Colorado College; MA, University of Colorado

Shah Abhay (1988) professor of marketing; BA, St. Xavier's College (Calcutta University); MBA, University of Evansville; Ph.D., Oklahoma State University

Sheidley, William E. (1994) professor of English; BA, MA, Ph.D., Stanford University

Sherman, John R. (1971) professor of speech communication; BA, Hunter College; MA, Ph.D., Southern Illinois University

Sims, Christine (2000) assistant professor physical Education, EXHPR; BS Indiana University of Pennsylvania; MS Canisius College; Ed.D., University of Northern Colorado

Sonnema, Roy B. (2000) associate professor of art; BA, Calvin College; MA, California State University Fullerton; Ph.D., University of California at Berkeley

Soto-Johnson, Hortensia (1989) associate professor of mathematics; BS, MS, Chadron State University; Ph.D., University of Northern Colorado

Spade, Beatrice (1993) associate professor of history; BA, University of Colorado; MA, University of Hawaii; MA, National Taiwan University; Ph.D., Harvard University

Spenny, David L. (1980) professor of physics; BS, Wittenberg University; Ph.D., University of Colorado

Stuyt, Jeff A. (1999) assistant professor of recreation; BA, MS, Wageningen University; Ph.D., Texas A & M University

Sullivan, Daniel R. (1970) associate professor of library services; BA, University of Kentucky; MLS, University of Oregon

Taylor, Cynthia (1989) associate professor of English; BA, MA, University of Idaho; Ph.D., University of Minnesota

Taylor, Ted (1990) assistant professor of English; BA, MA, University of Idaho; Ph.D., University of Minnesota

Thomas, Larry G. (1968) associate professor of biology; BS, Oklahoma State University; M.Ed., Ph.D., Colorado State University

Valerio, Luis G. (1975) professor of education; BA, University of Southern Colorado; MA, New Mexico Highlands University; Ph.D., University of Northern Colorado

Vorndam, Paul E. (1994) professor of chemistry; BS, Millikin University; MS, Illinois State University; Ph.D., University of Colorado

Wallin, Marta J. (1987) associate professor of physics; MS, Jagiellonian University, Kracow, Poland; Ph.D., University of Wyoming

Watkins, Donna M. (1988) associate professor of management; BBA, Sul Ross State University; MAT, Angelo State University; Ph.D., New Mexico State University

Weinhouse, Donald S. (1991) professor of education; BA, MA, University of California at Los Angeles; M.Ed., Ph.D., Oregon State University

White Temple-Gipp, Leslie (1999) assistant professor of social work; BS, University of Mary; MSW, Arizona State University; J.D., University of New Mexico

Whited, Hsin-hui (2001) assistant professor of economics; BS, Soochow University; MA, Ph.D., The Claremont Graduate School

Wilkes, Linda M. (1983) professor of chemistry; BA, California State University; Ph.D., University of Nevada at Reno

Williams, Euphemia G. (1995) professor of nursing; BS, University of Oklahoma; MS, Ph.D., University of Colorado

Wright, Will (1986) professor of sociology; BA, University of Oregon; MA, University of Rochester; Ph.D., University of California at Berkeley

Yescavage, Karen, (1992) associate professor of psychology; BS, Northwest Missouri State University; MA, Ph.D., University of North Carolina

Zeis, Charles, (1987) associate professor of business administration; BA, University of St. Thomas; MS, Ph.D., Texas A & M University

PUEBLO SCHOOL OF ARTS AND SCIENCE INSTRUCTORS

Allen, Natalie (2000) Instructor

Annand, Carol (1995) Instructor

Baca, Andrea (2000) Instructor

Bintz, John (2000) Instructor

Brown, Donald (2000) Instructor

Deluis, Carrie (2000) Instructor

Feliciano, Clarissa (2000) Instructor

Griffin, Patricia (2000) Instructor

Hamilton, Jeff (2000) Instructor

Hannan, Loriann (2000) Instructor

Hartgraves, Stephanie (1994) Instructor

Lucero, Marilyn (1998) Instructor

Lujan, James (2000) Instructor

Martindale, Gina (2000) Instructor

Martinez, Emily (2000) Instructor

Mckinsey, Sara (1996) Instructor

Media Evelyn (2000) Instructor

Milner, Patricia (2000) Instructor

Moreno, Kathy (2000) Instructor

Paulman, Holly (2000) Instructor

Provenza, Sandy (1998) Instructor

Ramu, Cynthia (1998) Instructor

Shue, Julie (2000) Instructor

Sikes, Hali (2000) Instructor

Smith, Kathryn (2000) Instructor

Tanner, Pat (2000) Instructor

Tate, April (2000) Instructor

Trujillo, Fred (2000) Instructor

White, Gala (1997) Instructor

ARTISTS-IN-RESIDENCE

Afanassieva, Veronika (1999) artist-in-residence, Veronika String Quartet; BA, State Music College, Russia; MM, Gnesins' Russian Academy of Music; MM, Miami University of Ohio

Bell, Sondra J. (1999) artist-in-residence; MA, University of Northern Colorado

Borisova, Roza (1999) artist-in-residence, Veronika String Quartet; BA, Ioshkar-Ola State Music College, Russia; MM, Gnesins' Russian Academy of Music; DMA, Gnesins' Russian Academy of Music; MM, Miami University of Ohio

DeWitt, Ray (1999) artist-in-residence; BA, University of Southern Colorado

Eberhardt, Allan R. (1999) artist-in-residence; BA, University of New Mexico

Garibova, Karine (1999) artist-in-residence, Veronika String Quartet; BA, MM, Gnesins' Russian Academy of Music; DMA, Gnesins' State Institute of Music; MM, Miami University of Ohio

King, June (1995) artist-in-residence; BS, Southern Colorado State College

Mendoza, Dorothy (1990) artist-in-residence; BA, University of Southern Colorado

Mendoza, John (1990) artist-in-residence; AA, Pueblo Junior College; BA, MA, University of Northern Colorado

Miliaeva, Olga (1999) artist-in-residence, Veronika String Quartet; BA, MM, Gnesins' Russian Academy of Music; MM, Miami University of Ohio

EMERITUS FACULTY

Aguilar, Kay M. (1964-1999) BS, MA, Ed.D., professor of emerita of exercise science and health promotion

Anderson, Norris D. (1965-1984) BA, MA, Ed.D., professor emeritus of education

Askwig, William J. (1962-1994) BSBA, MBA, Ph.D., professor emeritus of economics

Atteberry, Sarah (1975-1992) BS, MS, MSN, professor emerita of nursing

Baldauf, Boyd J. (1964-1988) BS, MA, Ed.D., professor emeritus of computer science technology

Banks, Jessie (1966-1996) BS, MA, professor emeritus of human performance and leisure studies

Bartlett, Thomas J. (1967-1977) BS, MA, professor emeritus of mathematics

Bassein, Beth Ann (1966-1991) BA, MA, Ph.D., professor emerita of speech communication

Benton, Johnny (1968-1996) BA, MA, Ph.D., professor emeritus of speech communication

Blandford, Robert D. (1965-1989) BS, MA, DA, professor emeritus of mathematics

Blasing, James A. (1956-1984) AA, BS, MS, professor emeritus of physical education

Bond, John A. (1967-1984) BS, MA, Ph.D., professor emeritus of political science

Boss, Marion L. (1964-1984) BSBA, MSBE, Ed.D., professor emerita of business administration

Bottini, Patrick W. (1968-1999) BS, MA, professor emeritus of industrial science and technology

Bradley, Lawrence B. (1966-1988) BA, MA, professor emeritus of speech commuication/theater

Brassill, Joann A. (1967-1987) BA, MA, MFA, professor emerita of art

Bright, Leon A. (1963-1995) BS, MA, Ph.D., professor emeritus of foreign language

Buckles, William G. (1965-1993) BA, MA, Ph.D., professor emeritus of anthropology

Cain, Robert L. (1970-1993) BA, MLS, professor emeritus of library services

Cedrone, Frank J. (1969-1999) professor emeritus of piano

Connelly, Jerald (1979-1990) BS, Ph.D., professor emeritus of chemistry

Cook, Robert N. (1981-1999) BEE, MSE, M.SC., Ph.D., professor emeritus of computer information systems

Cotner, Jane (1960-1976) AB, BSLS, professor emerita of library sciences

Croxton, Carol (1978-1994) BA, MA, Ph.D., professor emerita of English

Davison, Earl (1950-1975) BS, professor emeritus of industrial technology

Kenyon, Gordon R. (1960-1980) BA, MA, Ph.D., professor emeritus of history

Dille, Ralph (1976-1996) BA, BS, MA, Ph.D., professor emeritus of English

Eagan, William (1962-1995) BA, MA, professor emeritus of history

Ervin, Dwain T. (1964-1984) BA, MA, Ph.D., professor emeritus of history

Farley, Mary (1991-1996) BSN, MS, Ph.D., professor emerita of nursing

Farwell, Hermon W. (1966-1984) AB, MA, professor emeritus of speech communication

Fouts, Kenneth B. (1962-1985) AA, BFA, MA, Ph.D., professor emeritus of speech communication

Gill, John (1971-1999) BS, MA, Ph.D., professor emeritus of mathematics

Graham, Robert E. (1980-1999) BS, MS, Ph.D., professor emeritus of physics

Hammer, Charles R. (1964-1995) BS, Ph.D., professor emeritus of chemistry

Hench, Robert W. (1965-1993) BFA, MA, professor emeritus of art

Hobbs, Harold C. (1966-1984) BA, MA, Ph.D., professor emeritus of psychology

Hostetler, Charles E. (1964-1988) BA, MA, Ed.D., professor emeritus of education

Howard, John R. (1967-1986) BA, MA, professor emeritus of geography

Howard, Maurice L. (1962-1979) Th.B., AB, MA, Ed.D., professor emeritus of psychology

Hughes, Cornelius G. (1976-2001) BA, MA, Ph.D., professor emeritus of sociology

Ihrig, Paul R. (1946-1971) BS, MA, professor emeritus of fine arts

Janes, Donald W. (1963-1993) BA, MA, Ph.D., professor emeritus of biology

Jurie, Carl A. (1956-1980) BA, MA, Ph.D., professor emeritus of geology

Kellogg, William (1969-1990) BA, MS, MM, professor emeritus of music

Kent, (Kahn) Theodore C. (1965-1978) BA, MA, Ph.D., Sc.D., professor emeritus of behavioral science

Levy, Ralph W. (1957-1981) BA, MA, professor emeritus of music

Li, Hung C. (1965-1990) BA, MS, Ph.D., professor emeritus of mathematics

Linam, Jay (1965-1991) BS, MS, Ph.D., professor emeritus of biology

Mahan, Kent (1969-1997) BS, Ph.D., professor emeritus of chemistry

Marino, Charles J. (1966-1999) BA, BFA, MA, professor emeritus of art

Markowski, Victoria (1969-1999) BM, professor emerita of music

Martinet, Anthony (1969-1990) BS, M.Ed., professor emeritus of automotive parts and service management

McCanne, Roy (1974-1994) BA, MA, Ed.D., professor emeritus of education

Miller, Margaret (1976-1990) BA, MS, Ph.D., professor emerita of teacher education

Miller, Robert E. (1952-1983) BS, MS, professor emeritus of chemistry

Miller, Wilbur C. (1967-1988) BA, MBS, Ph.D., professor emeritus of mathematics

Milne, Donald C. (1965-1993) BA, MA, Ph.D., professor emeritus of English/foreign languages

Morales, Heberto (1987-1999) Ph.D., professor emeritus of foreign language

Muller, Doyle K. (1963-1999) BM, BA, professor emeritus of music

Murray, Hallard (1969-1997) professor emeritus of biology

Olin, Carol M. (1971-1991) BA, MA, professor emerita of English

Orman, Leonard M. (1970-1982) BS, MA, professor emeritus of mathematics

Padgett, John J. (1967-1999) BS, MBA, professor emeritus of computer information systems

Pavlik, Richard E. (1963-2001) BS, MA, professor emeritus of mass communications

Perkins, David M. (1978-1995) BSEE, MSEE, professor emeritus of electronics engineering technology

Peterlin, Edward L. (1963-1995) BS, MA, CPA, professor emeritus of accounting

Phillips, David L. (1971-1995) BS, MS, Ph.D., professor emeritus of mathematics

Plonkey, Kenneth (1968-1998) BA, MA, Ph.D., professor emeritus of theatre

Post-Garden, Joan C. (1970-1999) BS, MS, Ph.D., professor emerita of psychology

Prater, Joseph C., Jr. (1956-1988) BS, MS, professor emeritus of mathematics

Redman, Ralph J. (1965-1989) BA, MA, MAT, professor emeritus of mathematics

Reiff, Glenn A. (1978-1989) BS, MS, professor emeritus of electronics engineering technology

Reinier, Edward R. (1964-1988) BS, MA, professor emeritus of management

Roach, George F. (1966-1989) AB, MM, professor emeritus of music

Sadler, George (1965-1987) BS, MS, Ph.D., professor emeritus of economics

Sajbel, Edward (1955-1989) AA, BA, MA, professor emeritus of art

Sanderson, James M. (1947-1976) BS, MA, professor emeritus of history

Sarver, Merle P. (1965-1995) AA, BA, MA, Ph.D., professor emeritus of economics

Shih, Tsang Yu (Tom) (1964-1984) BSM, professor emeritus of metallurgical engineering technology

Shirley, Robert C. (1984-1996) BA, MA, Ph.D., president emeritus and professor and professor emeritus of management

Simms, Houston C. (1947-1975) BA, MA, professor emeritus of biology

Sisson, Ray (1960-1996) AA, BSEE, MSEE, Ed.D., professor emeritus of engineering and dean emeritus of the College of Applied Science and Engineering Technology

Smith, John E. (1962-1989) AA, BA, Ph.D., professor emeritus of chemistry

Smith, Robert (1969-1996) BA, MA, professor emeritus of computer information systems

Socha, Frances J. (1967-1982) BSN, MA, professor emerita of nursing

Solis, Jose (1963-1996) BS, MSW, professor emeritus of social work

Steen, Melva (1992-2001) BSN, MA, professor emerita of nursing

Stjernholm, Kirstine (19671995) BA, MA, professor emerita of library services

Strobel, John D. (1960-1993) BME, MM, DMA, professor emeritus of music

Stutters, Donald G. (1960-1992) BA, MA, Ed.D., professor emeritus of human performance and leisure studies

Sublette, James E. (1984-1995) BS, MS, Ph.D., professor emeritus of biology

Sweet, Jerry (1969-1999) AAS, BSMET, MS, Ph.D., professor emeritus of mechanical engineering technology

Taussig, Anna (1960-1977) AB, MA, professor emerita of foreign languages

Taylor, Kenneth B. (1969-1995) BA, MA, professor emeritus of English

Tedrow, Charles E. (1968-1993) AB, MA, professor emeritus of industrial science technology

Tilley, Lewis L. (1965-1983) BFA, MFA, professor emeritus of art

Townley, Rodney D. (1945-1978) M.Mus.Ed., professor emeritus of music

Vunovich, Bogdan (Bob) (1967-1988) AB, MA, professor emeritus of mathematics

Wack, Dunstan J. (1969-1982) BS, MA, Ph.D., professor emeritus of psychology

Wands, Robert (1963-1996) BFA, MA, professor emeritus of art

Warfield, Dale E. (1971-1995) AA, BEE, MSEE, professor emeritus of electrical engineering technology

Watkins, Sallie A. (1966-1988) BS, MS, Ph.D., professor emerita of physics

Whitmer, Jean J. (1970-1987) BA, MA, Ph.D., professor emerita of education

Whitsitt, Ronald G. (1959-1989) BA, MA, professor emeritus of English

Wilkin, Ted (1999) professor emeritus of history

Withnell, Melvin C. (1967-1994) BS, MS, MA, Ph.D., professor emeritus of mathematics

Womack, Larry O. (1972-2000) AA, BSCE, MSCE., professor emeritus of civil engineering technology

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ACADEMIC CALENDAR 2002-2004

FALL	**2002**	**2003**
Graduation Planning Sheets Due	Apr 19 (02)	Apr 18 (03)
Registration Begins	Apr 1	Mar 31
Open Registration	Aug 23	Aug 22
Classes Begin	Aug 26	Aug 25
End Drop/Add	Sept 9	Sept 8
Thanksgiving Break	Nov 25-29	Nov 24-28
Classes End	Dec 6	Dec 5
Final Exams	Dec 9-13	Dec 8-12
Commencement	Dec 14	Dec 13

SPRING	**2003**	**2004**
Graduation Planning Sheets Due	Oct 11 (02)	Oct 10 (03)
Registration Begins	Oct 21 (02)	Oct 20 (03)
Open Registration	Jan 10	Jan 9
Classes Begin	Jan 13	Jan 12
End Drop/Add	Jan 27	Jan 26
Spring Break	Mar 24-28	Mar 22-26
Classes End	Apr 25	Apr 23
Final Exams	Apr 28-May 2	Apr 26-30
Commencement	May 3	May 1

SUMMER	**2003**	**2004**
Graduation Planning Sheets Due	Mar 7 (03)	Mar 12 (04)
Registration Begins	Mar 31	Mar 29
Open Registration	May 9	May 7
First 4, 6 and 12-week Sessions		
Classes Begin	May 12	May 10
End Drop/Add		
First 4-week	May 14	May 12
First 6-week	May 16	May 14
12-week	May 22	May 20
Classes End		
First 4-week	June 6	June 4
First 6-week	June 20	June 18
12-week	Aug 1	July 30
Second 4-week Session		
Classes Begin	Jun 9	June 7
End Drop/Add	June 11	June 9
Independence Day (USC Closed)	July 4 (F)	July 5 (M)
Classes End	July 3	July 2
Second 6-week Session		
Classes Begin	June 23	June 21
End Drop/Add	June 27	June 25
Classes End	Aug 1	July 30
Third 4-week Session		
Classes Begin	July 7	July 6
End Drop/Add	July 9	July 8
Classes End	Aug 1	July 30

*** Note - These Calendars are planned in advance and are subject to change.**

BULLETIN

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