

UNIVERSITY OF SOUTHERN COLORADO

CATALOG
1999/2000



ACADEMIC CALENDAR 1999-2000

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.

<u>FALL</u>	<u>1999</u>
Graduation Planning Sheets Due	Apr 16 (99)
Registration Begins	Apr 5
Open Registration	Aug 20
Classes Begin	Aug 23
End Drop/Add	Sept 6
Thanksgiving Break	Nov 22-26
Classes End	Dec 3
Final Exams	Dec 6-10
Commencement	Dec 11

<u>SPRING</u>	<u>2000</u>
Graduation Planning Sheets Due	Oct 8 (99)
Registration Begins	Oct 25
Open Registration	Jan 7
Classes Begin	Jan 10
End Drop/Add	Jan 24
Spring Break	Mar 20-24
Classes End	Apr 21
Final Exams	Apr 24-28
Commencement	Apr 29

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.

<u>SUMMER</u>	<u>2000</u>
Graduation Planning Sheets Due	Mar 10 (00)
Registration Begins	Mar 13
Open Registration	May 5

First 4, 6 and 12-week Sessions

Classes Begin	May 8
End Drop/Add	
(First 4-week)	May 10
(First 6-week)	May 12
(12-week)	May 18
Classes End	
(First 4-week)	June 2
(First 6-week)	June 16
(12-week)	July 28

Second 4-week Session

Classes Begin	June 5
End Drop/Add	June 7
Independence Day (USC Closed)	July 4 (Tu)
Classes End	June 30

Second 6-week Session

Classes Begin	June 19
End Drop/Add	June 23
Classes End	July 28

Third 4-week Session

Classes Begin	July 3
End Drop/Add	July 6
Classes End	July 28

catalog issue

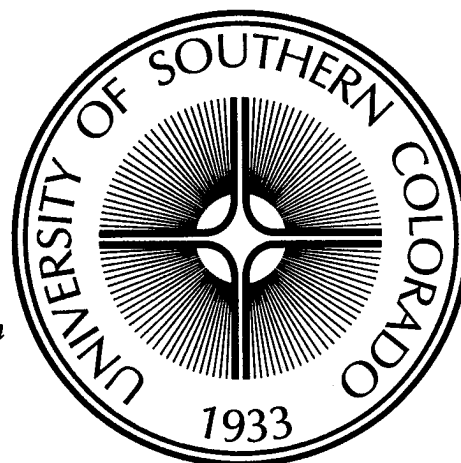
1999-2000

**University of Southern Colorado
2200 Bonforte Boulevard
Pueblo, Colorado 81001**

**Telephone: (719) 549-2100
Web site: <http://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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The University of Southern Colorado does not discriminate on the basis of race, age, color, religion, national origin, gender, disability, sexual orientation, veteran status or disability. The University complies with the Civil Rights Act of 1964, related Executive Orders 11246 and 11375, Title IX of the Education Amendments Act of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, Section 402 of the Vietnam Era Veteran's Readjustment Act of 1974, the Age Discrimination in Employment Act of 1967, as amended, Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, and all civil rights laws of the State of Colorado. Accordingly, equal opportunity of employment and admission shall be extended to all persons and the University shall promote equal opportunity and treatment through a positive and continuing affirmative action program. The Office of Affirmative Action is located in AD 306. In order to assist USC in meeting its affirmative action responsibilities, ethnic minorities, women, and other protected class members are encouraged to apply and to so identify themselves.



UNIVERSITY OF SOUTHERN COLORADO

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



PUEBLO MUNICIPAL GOLF COURSE

CAMPUS LEGEND

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

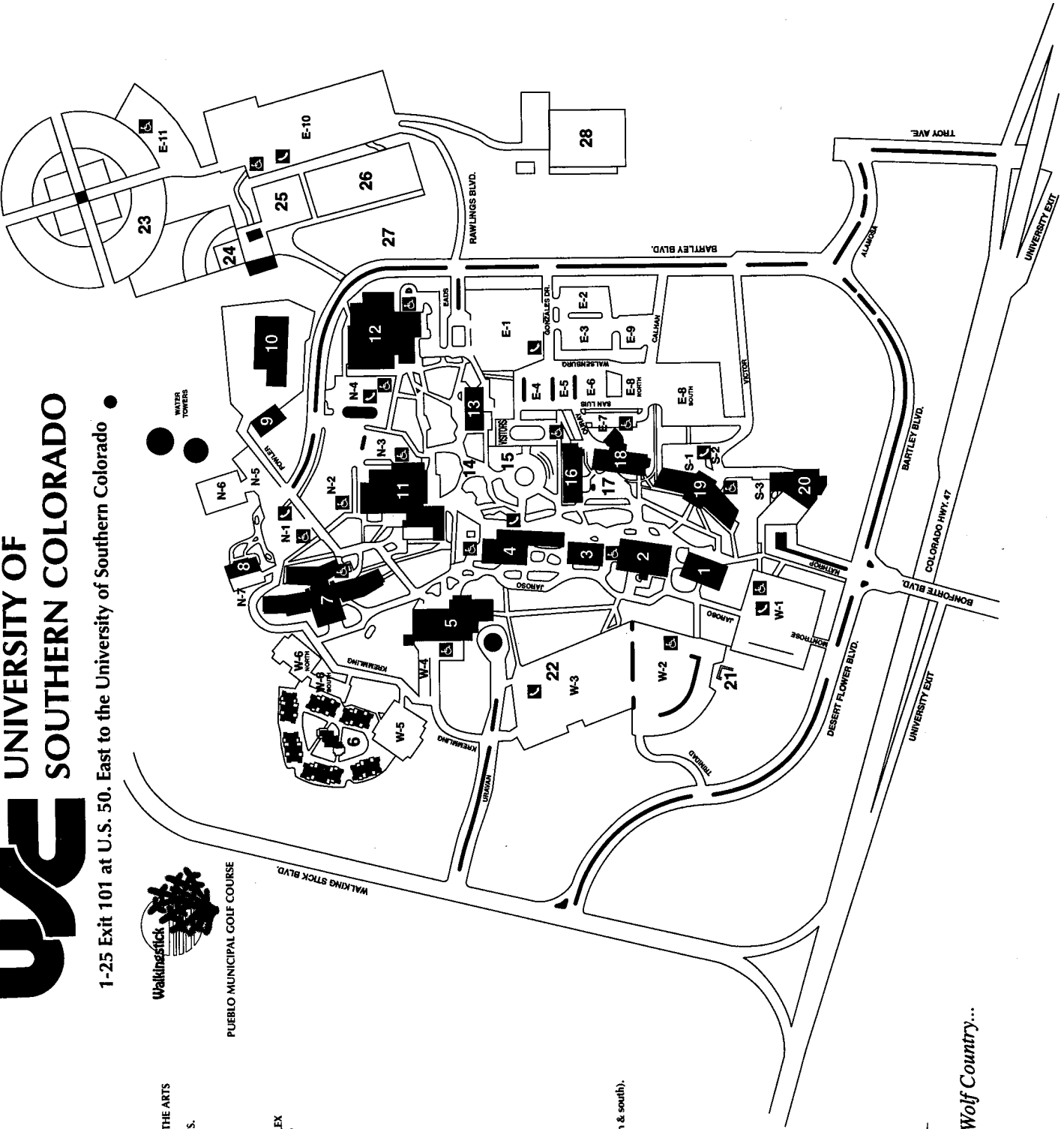


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DIRECTORY

NOTE: 549- IS THE PREFIX FOR ALL NUMBERS

TROUBLE SHOOTING NUMBERS

IF YOU ARE CONSIDERING:

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dropping one or more courses	2261
an on-campus job	2980
an off-campus job	2980

IF YOU ARE HAVING TROUBLE WITH:

access to a computer	2566
money to stay in school	2753, 2380 or 2980
grades/need a tutor	2581
residence hall programs	2601
residence hall repairs	2601
someone harassing you	2373
meals	2831
police/security conduct	2373
interpersonal relations with another student	2479
interpersonal relations with a faculty or staff member (Contact appropriate Department Chair)	
day care availability	2407

IF YOU DON'T KNOW:

your adviser	2581
where to get an ID card	2149
how to hold a campus function	2151 or 2161
how to handle a racial or sexual discrimination	2936
where an how you can post signs and messages	2511
how to use the athletic facilities (pool, fields, gym, etc)	2711
how to schedule the challenge ropes course	2085
what clubs are seeking members	2866
what social activities are available this week	2459 or 2151

IF YOU NEED STUDENT FINANCIAL SERVICES

work study	2980
loans	2605
Veteran's Affairs	2360 or 2368
President's Scholarship	2178
other scholarships	2380
for concerns not listed above	2753

USC GRAMMAR HOTLINE

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

FREQUENTLY CALLED OFFICE LISTINGS

A

Academic Affairs	2313
Academic Advising Center	2584
Accounting Department (Academic)	2101
Accounting Office	2232
Admissions	2461

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Alliance Grants Center (AGC)	2930
Alumni Relations	2114
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Applied Science & Engineering Technology	2696
Art Department	2816
Aspen Leaf Restaurant	2928
Associate Provost	2325
Associated Students' Government	2866
Athletics	2711
Audio Visual Collections Area	2685
Automotive Parts & Service Management	2675
Auxillary Services	2149

B

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Basketball	
Men's	2713
Women's	2382
Belmont Residence Hall	2601
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Bookstore	2146
Buildings and Grounds	2211
Business School	2142
Business Services	2511

C

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Cafeteria	2831
Capps Capozzolo Center	2150
Career Center	2980
Cashier	2131
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ASET Lab	2836
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Controller	2232
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D

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 Dining Services 2831
 Dormitory 2601
 Drug and Alcohol Prevention 2092

E

Educational Opportunity Center 542-4811
 Electronics Engineering Technology 2877
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 English/Foreign Language Department 2103
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 Language Lab 2517
 Experiential Learning Lab 2085

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 Faculty Center for Professional Development 2559
 Finance and Planning 2307
 Financial Aid (Student Financial Services) 2753
 Scholarship Awards 2178
 Food Services 2831
 Foundation Office 2380

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 Golf 584-3400
 Graduate School 2461
 Grammar Hotline 2787

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 Health Services 2830
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 Political Science Department 2143
 Honors Program 2798
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 Dean 2361
 Information Desk 2451
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 Reference 2333

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 Off-Campus Programs 2316
 Office of Emergency Management 2100
 Operator (University) 2001
 Orientation 2584
 Outdoor Program 2023

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 Personnel Services 2441
 Physical Plant
 Office 2211
 Custodians 2211 or 2400
 Grounds 2206
 Heating Plant 2282 or 2283
 Plant Maintenance 2211 or 2237
 Shipping and Receiving 2299
 After Hours 2282
 Physics/Physical Science/Geology Department 2542
 Policy and Security 2373
 President's Office 2306
 Printing Services 2893
 Productivity Training Project 583-8677
 (Latino Chamber of Commerce)
 Provost's Office 2313
 Psychology Department 2156
 Pueblo School for Arts & Sciences 2737
 Pueblo Symphony 2385
 Publications 2171
 Purchasing 2339

Q

Quick Copy Center 2894

R

Radio Station 2820
 Raptor Center 2327
 Rawlings Field 2271
 Concessions 2518
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 Ticket Box 2517
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 Recreation Department (Academic) 2381
 Recruitment of Women & Minorities 2487
 Registration/Records 2261
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 Room Scheduling (Gym) 2711
 Room Scheduling (OUC) 2161
 Room Scheduling (Residence Hall) 2601
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 Sam Jones Sports Complex
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 Racquetball Reservations 2096
 Scholarship Awards 2178
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U

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 University Relations 2967
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 USC Learning Center 2901
 USC Today 2848

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W

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 Women's Athletic Office 2711
 Women's Caucus 2719
 Women's Resource Center 2990
 Wrestling 2712

DEGREE PROGRAMS

The following is a list of majors and degrees available at the University of Southern Colorado. Many of these majors include special emphases and many departments also offer minor programs of study. For more specific information please refer to the college and department sections of this catalog.

COLLEGE OF APPLIED SCIENCE AND ENGINEERING TECHNOLOGY

Automotive Parts and Service Management	BS
Civil Engineering Technology	BSCET
Computer Information Technology	BS
Electronics Engineering Technology	BSEET
Industrial Engineering	BSIEN
Industrial and Systems Engineering	MS
Industrial Science and Technology	BS
Mechanical Engineering Technology	BSMET

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Art	BA,BS
English	BA
Foreign Language-Spanish	BA
History	BA
Mass Communications	BA, BS
Music	BA
Political Science	BA, BS
Psychology	BA,BS
Social Science	BA,BS
Social Work	BSW
Sociology	BA,BS
Speech Communication	BA,BS

COLLEGE OF SCIENCE AND MATH

Applied Natural Science	MSANS
3+2 Joint Degree Program	BS + MSANS
Biology	BS
Chemistry	BS
Exercise Science and Health Promotion	BS
Mathematics	BA,BS
Nursing	BSN
Physics	BS
Recreation	BS

HASAN SCHOOL OF BUSINESS

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

THE CENTER FOR TEACHING, LEARNING AND RESEARCH

The Center for Teaching, Learning and Research collaborates with other academic units to offer programs leading to Colorado teacher licensure in the following endorsement areas:

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

CONSORTIUM PROGRAMS

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

Elementary Education (Adams State College)	MA
Guidance and Counseling (Adams State College)	MA
Social Work (Colorado State University)	MSW
Special Education (Adams State College)	MA

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 Planning.

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 1998-99 issue becomes effective fall semester 1998. Information contained within the catalog is current as of April 1998, 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 1999-2000 catalog issue.

ADMISSION

The University of Southern Colorado welcomes applications from all persons interested in post-secondary education. The Office of Admissions is located in the Administration building. Prospective students may obtain information about all USC programs, as well as university admission procedures, from the admissions office. 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, USC, 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 CCE 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 admissions office 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.

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 may 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

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 without a grade, is counted toward graduation credits, and may be used to fulfill specific requirements.

For further information, students should contact the admissions office.

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 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. 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 64 semester hours from community or junior colleges and/or a maximum of 96 semester hours from four-year institutions.

Courses with grades of D or F are not accepted for transfer with one exception. 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.

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 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.

A maximum of 30 hours of correspondence work may be applied toward a bachelor's degree. Extended studies (continuing education) will be treated in the same manner as traditional credit.

A maximum of 20 semester hours of transferable credit that is vocational or technical in nature will be accepted as general university elective credit, and apply to the 128-credit degree requirement to the extent needed, once general education, major and minor requirements have been met. Where specific courses are determined to be applicable to a student's major (or minor) requirements, credit will be applied upon approval of the chair of the department granting this major (or minor).

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.

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.

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 for one year.

College Level Examination Program

All credit earned by the student on any of the CLEP **general examinations** and recorded on the student's transcript from another institution is accepted in transfer, if the credit is not duplicated from other sources. If CLEP credit is transferred directly, only credit in the areas of humanities and social science is accepted unless otherwise approved in writing by the appropriate department chair and dean. If a student has taken humanities or social science classes **before** taking CLEP tests, those credits are deducted from the CLEP credits.

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 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 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 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.

Student may appeal the first appeal decision in writing to the associate provost. The appeal must be filed within fifteen (15) calendar days of the postmark date

of the letter from the Director of Admissions 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. 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 reserves the right to change policy. Exceptions are at the discretion of the Director of Admissions.

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 by the application deadlines.

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 complete the IB program and IB examination(s) are eligible to receive credit and advanced placement standing at the University of Southern Colorado.

To receive university credit, a student must take the IB examination(s) and request that the scores be sent to the University of Southern Colorado admissions office. 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 - four weeks.

A score of 4 or better on the IB examination(s) will receive between 3 -10 credits for most examinations. Please contact the office of the Director of Admissions for more information.

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, may request academic renewal at the time of readmission to the university. Students who take advantage of the Academic Renewal Policy will not have grade-point averages carried forward upon readmission, and courses with grades of D or F will not count toward graduation. **Academic renewal will not be granted more than once.**

Students who seek readmission to the university after an absence of 10 years or more will not have grade-point averages carried forward. 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.

Students who elect academic renewal will be required to complete at least 32 hours of credit after readmission before they are eligible for a baccalaureate degree.

The Academic Renewal Application can be obtained from the Registrar's Office.

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 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. 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.

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.

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 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.

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 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.

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. 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 if their status changes from resident to non-resident. 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 Records office 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. Contact the accounting office at (719) 549-2234, Administration building room 212 for more information.

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. Parking decals are non-refundable.

OPTIONAL COPIRG FEE

In the spring of 1989, students voted to establish a chapter of the Colorado Public Interest Research Group (CoPIRG), to be funded by a \$5 waivable fee. CoPIRG is a statewide, student-directed, non-partisan, non-profit organization that conducts research, advocacy, and public education on such issues as voter registration, safe drinking water, air quality, toxic waste clean-up and prevention, consumer protection and good government. CoPIRG chapters also operate at Colorado State University, the University of Northern Colorado, and Metro State College.

Students interested in becoming involved with CoPIRG projects may call (719) 549-2198 or (303) 355-1861. The CoPIRG fee will be added to other charges automatically unless you **initial the appropriate space on your registration form to waive the fee.** If

you do not wish to be charged for CoPIRG and forget to initial the appropriate space, a refund can be requested from the CoPIRG office in the Occhiato Center.

PAYMENTS

Extended payment plans are available. Please refer to the current semester course bulletin for specific due dates.

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 circumstances. 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 a signed 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 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 Financial Aid.

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 are 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.

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 documents 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 than 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 Office of the Associate Provost. The Office of the Associate Provost 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 Associate Provost at (719) 549-2325 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 Aid 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 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 \$2,000 per academic year and generally will not exceed one-half the documented financial need. 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.

Part-time Student Grant (Colo.)

The part-time student grant is awarded to undergraduate Colorado residents, with financial need, who are enrolled less than full-time. The amount of the grant cannot exceed \$2,000 per year.

State Student Incentive Grant (SSIG)

The SSIG is awarded to undergraduate resident students on the basis of financial need. Stipends range from \$200 to \$2,500 per academic year and generally will not exceed one-half of the documented financial need. The SSIGs 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 \$1,800. 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:

- \$3,000 a year as an undergraduate if they are enrolled in a degree program, leading to a bachelor's degree;
- \$5,000 a year as graduate students enrolled in a master's degree program;
- \$15,000 aggregate if they are undergraduates working toward a bachelor's degree; or
- \$30,000 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 financial aid office or to the accounting office.

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 low interest rate 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

Federal regulations require that all loans be disbursed in multiple disbursements regardless of loan amount or length of the loan period. Therefore, students who borrow for both fall and spring semester will receive two disbursements, one each semester. Students who borrow for summer, fall, and spring, will receive three disbursements, one each semester. For one semester loans, the student will receive two disbursements. **The second disbursement cannot be made until at least one-half of the loan period has elapsed.**

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/or paid to the student directly.

Lending institutions send the loan check to the accounting office where the check is recorded. The student's academic progress, enrollment status, and eligibility will be checked by the financial aid office. Once these measures have been taken, with proper identification, the student may sign for the check and sign it or apply it to their university account.

Loan checks may be disbursed after the end of the loan period or when a semester is over, under certain conditions.

A school cannot hold a student loan check for more than 45 days after it has been received. The check will be returned to the lender.

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 PLUS loan must be disbursed in multiple disbursements (similar to the Federal Stafford). 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

Freshmen recipients are selected on the basis of high school grade-point average, class rank, and Scholastic Aptitude Test or American College Test scores. All others are selected on the basis of the cumulative GPA. These parameters may vary from year to year and are dependent on the availability of funds. Recipients of the scholarships are selected by a special committee. Currently enrolled USC students must

complete 24 semester credits per year (courses with grades of S/U are not included). Renewal of the scholarship is based on the student's cumulative grade-point average at the end of **each semester**. Grade-point averages of transfer students are not considered in determining cumulative grade-point averages. The award cannot be used for more than eight academic terms or beyond the time that the bachelor's degree is awarded. The funds are provided by the Colorado General Assembly.

USC Diversity Grant

The Diversity Grant program is designed to recruit and retain students from under-represented groups (who contribute to a diverse educational environment). Honors Diversity Grants of \$1,000 are available to minority, single parent and handicapped students in the Honors Program. Additional USC Diversity Grants of \$1,000 will be awarded on the basis of GPA and overall qualifications. Applications are available in the financial aid office. The grants are designed to supplement other aid programs available to students. The number of awards is dependent upon the level of state funding for the program. Funds are provided by the Colorado General Assembly.

Awards to Out-of-State Students

A portion of the undergraduate scholarship funds may be awarded to non-resident (out-of-state) students provided all established criteria is met. Applications are available in the financial aid office.

Private Scholarship Program

The University of Southern Colorado Foundation administers many scholarships awarded by corporations, businesses, foundations, individuals and other private sources. Various scholarships also are financed by local groups, service clubs, cultural societies and similar organizations.

USC President's Scholarship

The President's Scholarship program is designed to provide recognition for outstanding academic performance and talent (art, creative writing/journalism, music, speech/ theatre). Scholarships of \$1,000 are awarded to selected undergraduate U.S. citizens or resident aliens who are incoming freshmen, community or junior college transfer students or continuing students at USC.

The following procedure has been established for scholarship disbursements from the USC Foundation each semester.

- 1) The scholarship recipient is notified of the award and *must* send the donor a thank you letter for the scholarship and provide the USC Foundation office with a copy of the letter;

- 2) When scholarship recipients receive their bills for tuition, they should report to the cashier to endorse checks made payable to themselves AND the university and have their account credited;
- 3) When all charges are cleared, any surplus remaining from the check will be paid to the recipient if so allowed by the donor.

Questions about private scholarships may be directed to the USC Foundation. Information about most scholarships is available in the USC Foundation office, Administration building, room 320, phone (719) 549-2380, and from high school counselors.

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 Psychology building, room 232, 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 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: Joseph Gregory, Scholarship Office, U.S. Department of the Interior, Bureau of Indian Affairs, P.O. Box 370, New Town, ND 58763.

Disabled/handicapped Students

The Learning Assistance Center, Psychology building, room 232, provides information and appropriate services for disabled and handicapped students.

REFUNDS

Students with financial aid who completely withdraw from all classes on or before 60 percent of the semester is completed, and whose institutional charges (tuition/fees and on-campus room and board) were paid with financial aid funds, will have a refund calculated. The refund will be credited back to the financial aid programs.

U.S. Department of Education regulations require an institution to have a fair and equitable refund policy. The Higher Education Amendments of 1992 define a "fair and equitable refund policy" as one that provides for a refund of at least the largest amount.

For each financial aid recipient who does not complete the enrollment period (completely withdraws from all classes) for which they were charged, the school must calculate all possible refunds to see which is the largest. Normally, an institution would use the largest refund amount applicable by state law or by the accrediting agency. Neither Colorado nor North Central Accreditation have a refund policy in place. Because neither of these apply, the financial aid officer must compare the institutional amount of refund to one of two federal refund formulas, (1) Statutory Pro-Rata or (2) Federal Refund, to determine the largest refund.

The (Statutory) Pro-Rata formula is used for first-time students (both freshmen and transfer students) who withdraw on or before the 60 percent point of the semester.

A federal refund is calculated for students who are continuing students and who withdraw on or before the 60 percent point of the semester.

For information on the institutional refund policy, refer to the semester course bulletin.

Once the largest amount of refund has been determined, the funds will be credited to the following accounts, as prescribed by federal regulation in the order given below:

- 1) Unsubsidized Federal Stafford Loan
- 2) Subsidized Federal Stafford Loan
- 3) Federal PLUS Loan
- 4) Federal Perkins Loan
- 5) Federal Pell Grant
- 6) FSEOG
- 7) Other Title IV Aid programs
- 8) Other federal, state, private, or institutional aid
- 9) The student

REPAYMENT

Repayment may result if the student received funds for non-institutional costs. Non-institutional costs generally include off-campus room and board, transportation, and miscellaneous expenses.

Federal Stafford Loans received and work-study funds earned are not considered when the repayment is calculated.

The financial aid officer will calculate a weekly amount for non-institutional expenses and multiply this amount by the number of weeks the student is enrolled. If these expenses are less than the amount of cash received, the student must repay the difference. If total expenses exceed the amount of cash received, no repayment is necessary.

Repayment of funds, as prescribed by federal regulations, will be distributed as follows:

- 1) Federal Perkins Loan
- 2) Federal Pell Grant
- 3) FSEOG
- 4) Other Title IV Aid programs
- 5) Other federal, state, private, or institutional aid

Following is an example of a refund and repayment:

Jennifer, who lives at home, withdrew during the third week of classes. This is Jennifer's second semester at USC. She received a Federal Pell Grant of \$1,170 and a subsidized Federal Stafford Loan of \$1,312.

Refund Example

The institution calculated Jennifer's refund at \$960. Because she is a continuing student, a federal refund must also be calculated. This calculation indicates that \$920 would be refunded.

The institutional refund of \$960 will yield the largest refund. Therefore, the \$960 will be returned to the lender who paid her subsidized Federal Stafford Loan.

Repayment Example

Jennifer received all of her Federal Pell Grant (\$1,170) to use for non-institutional costs.

The total allowed for her non-institutional costs totaled \$2,498. This figure divided by 15 (number of weeks in the semester) averages \$166.53. Therefore, her allowable non-institutional costs total \$499.60 ($\166.53×3 weeks).

Jennifer must repay \$670.40 ($\$1,170 - \499.60) of the Federal Pell Grant she received.

The financial aid officer will notify the accounting office of the amount that must be repaid and to which account it should be credited.

Students who owe a repayment of financial aid dollars are not eligible to receive additional assistance until the amount is repaid in full.

Note: Policies subject to change without prior notice.

STUDENT LIFE

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

Belmont Residence Hall (BRH) houses nearly 500 students. BRH consists of three wings which are joined by a large commons area. A main lounge serves as a gathering area and a large-screen satellite 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 a full service laundry room. BRH also has a computer lab, pool table, video arcade, and ice machine, for use by residents only. Our 24-hour front desk is available to answer questions and to check out equipment.

All rooms are designed for two people, although single occupancy is available. Rooms contain beds, desks, bookshelves, study lamps, closets, dressers, and chairs. Linen service is available for a nominal charge.

Freshman Live-in Policy

All full-time (enrolled for 12 or more hours), single, non-veteran freshman students under 21 years of age, enrolled in any university program must live in the residence hall and participate in one of three meal plans. Students who make application to USC with permanent home addresses and high school transcripts from communities that are within a 50-mile radius of the campus are exempt from the live-in requirement. Applications for appeals from the live-in requirement are due by the first day of classes each semester.

A \$100 security/damage deposit must accompany each application for space in the BRH. The deposit is not applied to room-and-board payment and is held in escrow for the duration of the student's occupancy. Occupancy and damage deposit payments may not be deferred.

University Village

University Village at Walking Stick offers a unique housing opportunity for sophomores, juniors, seniors, and graduate students. Located on the west side of Belmont Residence Hall, these four-bedroom townhomes allow students to experience private living while in the heart of campus life. The two-story townhomes feature two bedrooms and a bathroom on each floor, with a main level dining area and living room, as well as a second-floor study loft.

Complete with fully equipped kitchens, the townhomes allow students to do their own cooking. As a result, apartment residents are not required to purchase a meal plan. The dining areas in the university center, however,

are just a short walk away for those times when a quick, already-prepared meal is more convenient. For town-home leasing information call (719) 549-2860.

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

Most campus food services are located in the Occhiato Center. The main cafeteria is on the ground 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.
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. - 11:00 a.m.
Brunch	11:00 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 snack bar and pub, La Cantina, is on the first floor of the Occhiato Center and is open weekdays.

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.

Commuters as well as resident students may purchase student meal plan ID's. Discounted cash cards are available in small denominations of \$25 in the Auxiliary Services office, Occhiato Center, Room 114.

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 cooper-

ative 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, sex, gender orientation, disability, and age. In all instances, the needs and best interests of the client system will supersede any competing interests.

Experiential Learning Center

The Experiential Learning Center offers opportunities to learn how to use experience as a primary vehicle for learning. Experiential education subscribes to the proposition that the learning process is integrally bound with the activities of everyday life -- that "doing" is the fundamental component of learning. The center can serve existing and developing USC programs by offering a wide variety of outdoor and wilderness ventures designed to facilitate personal growth for participants. Programs offered by the center are the USC Outdoor Program, the W.I.L.D. Program (Wilderness Individual Leadership Development), USC Challenge Ropes Courses and the Intramural Sports and Recreation program.

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. All students are encouraged to participate, either as individuals or with teams.

Las Hermanas

Las Hermanas focuses on higher education for Hispanic women, although the organization assists women in need regardless of color or origin. Programs offered by Las Hermanas are as follows: orientation workshops, women's leadership conferences, self-esteem classes, math and English review classes, and support groups. The primary objective is to help women who have been out of school for many years make the transition back to college less stressful.

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

Student Health Services at USC contributes to a learning environment that encourages the development and enrichment of the whole individual and the campus as a whole. The goal of Student Health Services is to provide educational programs and quality treatment programs to help increase student productivity.

A registered nurse and a secretary operate the clinic; a physician is on duty part-time. Students are encouraged to visit the health clinic whenever necessary. It is located in the back courtyard of the Occhiato University Center, to the left of the cafeteria exit. Most common sicknesses are treated free of charge and any medications given by the doctor are also free.

The clinic is open from 8:00 a.m. - 4:00 p.m. Monday through Friday. Evening clinic is open from 5:00 - 7:00 p.m. on Tuesday. Doctors hours: Monday-Friday 10:00 a.m. - 1:00 p.m. Referrals to other physicians may be made when appropriate or if requested by the student. All medical records are confidential.

Student Activities

The Office of Student Activities, located in the Occhiato Center, room 036, houses the Student Activities Board. The board is responsible for planning, coordinating and implementing student-oriented activities, which are funded by student fees. The board is comprised of several programming areas including: On-Stage, Social Events, Multicultural Events, Town and Gown, Production and Promotion.

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 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 act 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 and 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.

ASG's main purposes are promoting student life and maintaining the general welfare of the student body.

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 Chi National Honor Society
Alpha Sigma Alpha (Sorority)
American Society of Mechanical Engineers
Association of General Contractors of America
Association of Technology Professionals
Association for Worksite Health Promotion
Automotive Booster Club
Belmont Residence Hall Association

Beta Sigma Phi
Black Student Organization
Catholic Students' Union
Chemistry Club
College Republicans
Colorado International Student Association
CoPIRG
Data Processing Management Association
Economics Club
Epsilon Delta
Epsilon Sigma Alpha
Engineering and Technology Student Leadership (Council)
English Club
Facility Managers Club
Finance Club
Re:FOCUS
Hungry Eye Literary Club
IFMA Student Chapter USC
Institute of Electrical and Electronic Engineers
Institute of Industrial Engineers
Institute of Management Accountants
Inter-Varsity Christian Fellowship
International Facilities Mgmt. Association
Kappa Sigma (Fraternity)
Lambda Chi Alpha (Fraternity)
Lambda Psi Chapter of Sigma Tau Delta
Language Society
Las Hermanas Sorority
M.E.Ch.A.
Medical Science Society
Mexican American Engineers and Scientists
National Hispanic Institute Collegiate Leadership Network
Non Traditional Club
Omega Psi Phi (Fraternity)
One-in-Ten
Past Masters History Club
Phi Alpha National Honor Society
Phi Beta Lambda
Phi Kappa Phi Honor Society
Physical Educators
Political Science Club
Pool and Ping Pong Club
Psi Chi
Psychology Club
Recreation Professionals' Society
Sigma Tau Delta
Soc. of Mex-Am Engineers & Scientists/ Soc. of Hispanic Professional Engineers
Society of Physics Students
Society of Women Engineers
Southern Colorado Association of Nursing Students
Students in Free Enterprise
Student Social Worker's Association
Student Chapter of the Institute of Management Accountants
Teacher Education Association
The Hungry Eye Writing Club
Tri Beta Biology Club

Truth and Light Ministries
 Upward Bound Alumni Club
 USC Ambassadors
 USC Art Club
 USC Honors Student Council
 USC Japanese Animation Club
 USC Marketing Club
 USC Philosophical Society
 USC Racquetball Club
 USC Recreation Professionals
 USC Rodeo Club
 USC Sign Language Club
 USC Ski Club
 USC Speech and Debate Club
 USC Veterans' Club
 Zero Hero

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 Ochiato 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.

DISCIPLINARY PROCEDURE

The primary responsibility for administering student discipline rests with the Dean of Student Life. In this capacity, the dean receives and investigates all

disciplinary complaints and administers the judicial disciplinary process involving unacceptable student conduct and infractions of USC rules and regulations (other than academic rules and regulations).

Decisions of the judicial disciplinary process may be appealed to the Campus Appeals Board, the highest hearing and appeal board for non-academic matters at the university. Decisions involving academic infractions, appeals, etc., must follow the procedures established by the academic division of the university.

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

If the judicial disciplinary process or campus appeals board determines that a student has violated a university regulation, a sanction may be imposed. Sanctions range from warnings to expulsion from the university. Details of the hearing processes, including the associate provost and disciplinary ombudsman's authority to intervene, are contained in the *Standards of Conduct Handbook* which contains a detailed explanation and description of institutional disciplinary philosophy, rules and regulations.

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

ACADEMIC POLICIES

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, readmittance 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.

Students in the College of Applied Science and Engineering Technology, however, are required to meet the degree program requirements listed in the catalog in effect at the time they are admitted to that degree program, provided they subsequently complete graduation requirements within a continuous period of no more than 10 years.

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 registrar.

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

A student 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 the Registrar.

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 Registrar 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 hour.
- B Above average achievement, credit given, 3 grade points per semester hour.
- C Average achievement, credit given, 2 grade points per semester 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 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 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 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 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 from the university after the end of the regular withdrawal period.
- WN Administrative withdrawal/withdrawal for nonpayment. Zero credit, 0 grade points per semester

hour. This grade is not computed in the grade point average.

- IN Incomplete, zero credit given, 0 grade points per semester 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 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 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 the Registrar 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

To qualify for placement on the deans' list, published fall and spring semesters, students must achieve a minimum semester grade-point average of 3.500, be degree-seeking and must earn at least 12 credit hours in the semester in which grade points are awarded.

GOOD ACADEMIC STANDING

The academic standing of all students is reviewed three times each year, at the end of each semester: Fall, Spring, Summer. 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 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 Associate 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 FROM THE ASSOCIATE PROVOST.**

Students placed on Academic Suspension who receive permission from the Associate Provost to remain at the University carry a **Conditional Reinstatement Status**; that is, students must, within 10 business days of receiving permission to remain here, contact staff in the USC Learning Center to develop an Academic Improvement Plan (AIP). **Failure to meet this condition results in immediate Academic Suspension.**

Students attending the University on Conditional Reinstatement 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 Notice are responsible for initiating the process by submitting an Appeal Letter to the Academic Appeals Committee. The Appeal Letter must address two issues: (1) why the Academic Suspension Notice is being appealed, and (2) why the student believes there will be an improvement in academic performance.

Appeal Letters requesting Conditional Reinstatement Status for the subsequent Fall semester must be postmarked no later than 5:00 PM on June 30. Appeal Letters requesting Conditional Reinstatement Status for the subsequent Spring semester must be postmarked no later than 5:00 PM on October 1. **Failure to submit Appeal Letters within these prescribed time lines 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

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

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 must satisfy any additional criteria as specified by the department.

A student may earn a maximum of 30 hours of credit by examination, with no more than 10 hours of general education courses included in the total.

If the 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. 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 or 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 in the Office of the Registrar.

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 the Registrar 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

A student who has received a low grade in a course can improve her/his cumulative grade point average by repeating that course 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 the Registrar. 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.

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.

Transcripts contain an appropriate entry indicating that the grade-point average has been recomputed and stating the basis for recomputation. 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.

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 the Registrar. A \$10 charge will be assessed for each course added after the end of the official add period.

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 the Registrar. 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 80 percent of the course duration has passed, a grade of W will be assigned. After 80 percent of the course duration has passed, a student may not withdraw.

NOTE

- 80 percent of a 15-week course occurs at the end of the 12th week.
- 80 percent of a 10-week course occurs at the end of the eighth week.
- 80 percent of an 8-week course occurs at the end of the sixth week.

- 80 percent of a 5-week course occurs at the end of the fourth week.

Exceptions to the above policy must be approved by the instructor and the dean of the appropriate college.

A grade of W does not affect the student's grade-point average. Grades of W will not be accepted during finals week.

WITHDRAWAL FROM THE UNIVERSITY

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

Students who withdraw after the end of the drop/add period are not refunded full tuition and fees. Students who withdraw after the 12th week of the semester also may suffer academic loss; a grade of F may be assigned by instructors if they are not notified officially of the student's withdrawal. To withdraw officially from the university, students must file a withdrawal form with the registrar's office. 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 Registrar within one calendar year from the end of the semester for which retroactive withdrawal is being sought. With the registrar's approval, 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 semester 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 registrar's office 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 registrar's office 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 the Registrar 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 Associate 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 32 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 registrar 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 (registrar, 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

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. Academic advisers are assigned by the major area. Degree-seeking students who have not selected a major and unclassified students should contact the Advising Center, Room 232 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 the Registrar.

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 the Registrar 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 128 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 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 64 semester hours from community or junior colleges.
- 5) For degree purposes, USC accepts a maximum of 96 semester hours from other four-year institutions.
- 6) Of the last 32 semester credits earned immediately preceding graduation, no more than 16 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, with no more than 10 hours of general education courses included in the total.
- 9) Students must successfully complete the requirements for an approved major including an approved capstone course 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 (K) 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 science degree must earn a minimum of 48 hours in the college of their major.
- 15) Candidates for the bachelor of arts degree must satisfy the foreign language requirement.
- 16) Degree candidates must file a completed *Graduation Planning Sheet* with the registrar's office the semester before they plan to graduate (check course bulletin for specific deadlines).
- 17) Degrees are issued only at the close of each semester and summer session.
- 18) Degrees will be granted only at the end of the semester during which the student completes all degree requirements.
- 19) Additional majors or minors will not be awarded or posted to a transcript after a baccalaureate degree has been granted.
- 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, including an approved capstone course.**

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 the Registrar 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 32 semester hours of University of Southern Colorado (resident) credit beyond the first degree with a minimum grade point average of 2.000. The additional 32 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 Dean's 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 associate 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

The general education requirement for graduation includes a total of 39 semester credits in two categories:

Skills Component	14 credits
Knowledge Component	25 credits
TOTAL	39 credits

SKILLS COMPONENT

The requirements included within this component should be completed as early as possible, preferably during the freshman year.

English Composition I	3 credits
English Composition II	3 credits
Speech	3 credits
Computer Usage	2 credits
Mathematics	3 credits
TOTAL	14 credits

The **skills component** must be completed with a minimum overall GPA of 2.000.

For illustrative purposes, the sub-areas of the **skills component** are:

Literacy and Communication Skills

ENG	101	Composition I
ENG	102	Composition II
SPCOM	103	Speaking and Listening

Computing Skills

ART	104	Computer Graphic Literacy
BUSAD	160	Introduction to Computers and Information Processing
CIS	101	Computers and You
CIS	110	PC Productivity and the Internet
MUS	105	Introduction to Music and Computers

Quantitative Skills

The mathematics skills requirement can be met in one of three ways:

- 1) Successful completion of MATH 109 (Mathematical Explorations);
- 2) Scoring 23 or above on the mathematics component of the ACT Exam; or
- 3) Completion of any approved* math course of a higher level than Math 109 with a grade of C or better.

*Math 360, 361,463, and 477 may not be used to satisfy this requirement.

KNOWLEDGE COMPONENT

The requirements of this component are distributed among the four domains listed below. The domains include a total of eight sub-areas (K¹ through K⁸). At least one course in each of the sub-areas must be completed.

1. Aesthetic and Ethical Values

K ¹ Visual and Performing Arts	3 credits
K ² Literature	3 credits

2. Understanding People

K ³ International & Multicultural Experience	3 credits
K ⁴ Historical Consciousness	3 credits
K ⁵ Health Consciousness and/or Awareness of Human Development, Experience & Behavior	3 credits

3. Economic, Political and Social Systems

K ⁶ Economic, Political and Social Systems	3 credits
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4. Science and Technology

K ⁷ Life Science*	3 or 4 credits
K ⁸ Physical Science*	3 or 4 credits

25 or 26 credits

*A laboratory experience is required in either area K⁷ or K⁸.

GENERAL EDUCATION REQUIREMENT COURSES

KNOWLEDGE COMPONENT

The general education requirement for graduation includes a total of 14 semester hours in the **skills** component and **25** semester hours in the **knowledge** categories.

1. AESTHETIC AND ETHICAL VALUES

K¹ VISUAL AND PERFORMING ARTS

ART	100	Visual Dynamics
MUS	118	Music Appreciation
TH	111	Theatre Appreciation
TH	112	Film Appreciation

K² LITERATURE

CS	220	Survey of Chicano Literature
ENG	130	Introduction to Literature
ENG	223	Modern World Literature
HONOR	120	Honors Literary Themes
PHIL	102	Philosophical Literature
PHIL	201	Classics in Ethics

2. UNDERSTANDING PEOPLE

K³ INTERNATIONAL AND MULTICULTURAL EXPERIENCES

ANTHR	100	Cultural Anthropology
CS	101	Introduction to Chicano Studies
ENG	240	Survey of Ethnic Literature
FRN	102	Beginning Spoken French II
GER	102	Beginning Spoken German II
ITL	102	Beginning Spoken Italian II
PHIL	120	Non-Western World Religions
POLSC	105	Understanding Human Diversity
POLSC	200	Understanding Human Conflict
PSYCH	105	Understanding Human Diversity
RUS	102	Beginning Spoken Russian II
SOC	105	Understanding Human Diversity
SPN	102	Beginning Spanish II
SW	105	Understanding Human Diversity
WS	105	Understanding Human Diversity

K⁴ HISTORICAL CONSCIOUSNESS

ART	105	History through Art I
ART	106	History through Art II
CS	136	The Southwest United States
HIST	101	World Civilization to 1100
HIST	102	World Civilization from 1100 to 1800
HIST	103	World Civilization since 1800
HIST	136	The Southwest United States
HIST	201	U.S. History I
HIST	202	U.S. History II

K⁵ HEALTH CONSCIOUSNESS AND/OR AWARENESS OF HUMAN DEVELOPMENT, EXPERIENCE AND BEHAVIOR

BIOL	162	Personal Health
EXHP	162	Personal Health
EXHP	201	Drugs and Healthy Lifestyles
HONOR	220	Honors Health Issues
MACOM	101	Media and Society
PHIL	204	Critical Reasoning
PSYCH	100	General Psychology
PSYCH	151	Human Development
SOC	101	Introduction to Sociology

3. ECONOMIC, POLITICAL AND SOCIAL SYSTEMS

K⁶ ECONOMIC, POLITICAL AND SOCIAL SYSTEMS

ECON	102	Economics and Society
GEOG	103	World Geography
HONOR	230	Honors International and Economic Issues
POLSC	101	American National Politics
POLSC	260	Power: Political and Economic Systems
PSYCH	231	Marriage, Family and Relationships
SOC	201	Social Problems
SOC	231	Marriage, Family and Relationships
WS	231	Marriage, Family and Relationships

4. SCIENCE AND TECHNOLOGY

K⁷ LIFE SCIENCE

BIOL	100	Principles of Biology
BIOL	100L	Principles of Biology Lab
BIOL	121	Environmental Conversation
BIOL	121L	Environmental Conversation Lab
HONOR	210	Honors Life Science and Technology
PSYCH	222	Understanding Animal Behavior

K⁸ PHYSICAL SCIENCE

CHEM	101	Chemistry and Society
CHEM	101L	Chemistry and Society Lab
GEOL	101	Earth Science
GEOL	101L	Earth Science Lab
HONOR	110	Honors Physical Science
IST	205	Issues and Trends in Technology
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

GENERAL EDUCATION EXEMPTIONS

Exemptions from skills and knowledge component requirements may have been approved for certain major or minor areas. Please refer to the following for a complete listing of the General Education Exemptions. For current information, a student should consult with his or her academic adviser or the appropriate department.

COLLEGE OF APPLIED SCIENCE AND ENGINEERING TECHNOLOGY

Department	EXEMPTION AREA			Credit Hours
	Component	Domain	Sub-domain	
CET Major	Skills (I)	Computer Usage (C)	_____	2
	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
EET Major	Skills (I)	Computer Usage (C)	_____	2
	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
MET Major	Skills (I)	Computer Usage (C)	_____	2
	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
Industrial Engineering Major	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
ISTTeaching Option	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
Industrial Tech APSM Major	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
			K ⁷ Life Science	3
Industrial Tech Facilities Major	Knowledge (II)	Science & Technology (D)	K ⁸ Life Science	4

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Department	EXEMPTION AREA			Credit Hours
	Component	Domain	Sub-domain	
English Major	Knowledge (II)	Aesthetic & Ethical Values (A)	K ² Literature	3
Foreign Language Major	Knowledge (II)	Understanding People (B)	K ³ International & Multicultural Experiences	3

COLLEGE OF SCIENCE AND MATHEMATICS

Department	EXEMPTION AREA			Credit Hours
	Component	Domain	Sub-domain	
Biology Major	Knowledge (II)	Science & Technology (D)	K ⁷ Life Science K ⁸ Physical Science	7
Biology Minor	Knowledge (II)	Science & Technology (D)	K ⁷ Life Science	4
Chemistry Major	Skills (I)	Computer Usage (C)	(not word processing)	1
	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
Chemistry Minor	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
Geology Minor	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
Mathematics Major	Skills (I)	Computer Usage (C) Science	(not word processing) K ⁷	1
	Knowledge (II)	& Technology (D)	Life Science or K ⁸ Physical Science	4
Nursing Major	Knowledge (II)	Science & Technology (D)	K ⁷ Life Science K ⁸ Physical Science	7
All Physics & Physical Science Majors except Teaching Option	Skills (I)	Computer Usage (C)	(not word processing)	1
	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4
Physics Major Biophysics Option	Knowledge (II)	Science & Technology (D)	K ⁷ Life Science	3
Physics, Physical Science Majors	Skills (I)	Computer Usage (C)	(not word processing)	1
	Knowledge (II)	Science & Technology (D)	K ⁸ Physical Science	4

THE HASAN SCHOOL OF BUSINESS

Department	EXEMPTION AREA			Credit Hours
	Component	Domain	Sub-Domain	
All Majors	Knowledge (II)	Economic, Political & Social Systems (C)	K ⁶ Economic, Political and Social Systems	3

THE CENTER FOR TEACHING, LEARNING AND RESEARCH

Department	EXEMPTION AREA			Credit Hours
	Component	Domain	Sub-domain	
Education Track in History, Political Science, and Social Science	Knowledge (II)	Understanding People (B)	K-3 International and Multicultural Experiences	3
			K-4 Historical Consciousness	3
			K-5 Health Consciousness and/or Awareness of Human Development, Experience and Behavior	3
Elementary Teacher Education	Knowledge (III)	Economic, Political and Social Systems	K-6 Economic, Political and Social Systems	3
			K-6 Economic, Political and Social Systems	3
Elementary Teacher Education	Knowledge	Life Science (D)	K-7 Life Science	3
Elementary Teacher Education	Knowledge	Physical Science (D)	K-8 Physical Science	4

TRANSFER STUDENTS

Transfer students will comply with the policy outlined in the university catalog in effect at the time of entry to the university.

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 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 (33 credit hours for the AS or 34 credit hours for the AA degree) as a substitute for the university's general education requirements for a student who is certified as having successfully completed the core curriculum. However, only courses with grades of C or higher 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:

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 higher 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.

READMIT STUDENTS

Students readmitted to USC must fulfill the requirements in the General Education program.

GENERAL EDUCATION COURSE SUBSTITUTIONS AND/OR WAIVERS

Substitutions and/or waivers for courses fulfilling general education requirements must be approved by the registrar.

GENERAL EDUCATION TEST-OUT POLICY

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

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.

4) Knowledge Goals

Aesthetic and Ethical Values

- 1) Creative and/or performing arts - Students shall demonstrate knowledge of aesthetic values and artistic processes.
- 2) Values (social/ethical) - Students shall demonstrate knowledge of ethical values and social and civic responsibilities.

Understanding People

- 1) International and multicultural experience - Students shall demonstrate knowledge of cultural differences and global interrelatedness.
- 2) Historical consciousness - Students shall demonstrate knowledge of the past as a means for analyzing contemporary issues.
- 3) Health consciousness - Students shall demonstrate knowledge of the principles of mental and physical health.

Economic, Political, and Social Systems

- 1) Students shall demonstrate knowledge of the social, economic, and political institutions and systems.

Science and Technology

- 1) Science - Students shall demonstrate knowledge of natural and physical phenomena.
- 2) Technology - Students shall demonstrate knowledge of technology and its interrelationship with society.

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 30%, 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, pamphlets and government documents through instruction for individuals, small groups or formal classes. Staff also prepare subject bibliographies for classes, arrange inter-library loans and provide computer-based reference searches.

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.

The audiovisual collection in Library 310 offers student carrels for playback of videos.

INTERDISCIPLINARY STUDIES

The Interdisciplinary 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 Honors program, USC/American Humanics Non-Profit Certification program and several courses that provide students with interdisciplinary perspectives and opportunities to study in courses not regularly offered through the disciplinary curricula.

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, interdisciplinary 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.
- 4) 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 standards, they will be denied admission.
- 5) Admission of non-honors students into honors courses is at the discretion of the honors director. Students are responsible for communicating their interest to the faculty member teaching the course in the form of a letter detailing their interests and/or expertise in the topic. The student's letter will also outline his/her plan of study for the course, which will be filed with 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 contact 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:

- the student's initial application to the program, 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 Department 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 the extended studies. 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 may be used in meeting the institutional residency requirement.

A primary aim of the Division of Continuing Education is to provide courses to part-time adult students. A variety of educational methods - classroom instruction, televised 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 normally are scheduled in eight- or nine-week sessions; special programs 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 Pueblo 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 at USC focuses on the needs of international students. Housing placement, immigration counseling, academic tutoring, part-time on campus employment and acculturation assistance are just a few of the support services offered free-of-charge. International Programs' 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. During this activity, students will be administered an English placement exam. Results of the exam will indicate registration for the appropriate English course, and do not interfere with admission to the university.
- **Activities:** International students are welcomed 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 parties, the International Extravaganza, holiday celebrations and field trips.

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

INTERNATIONAL STUDENT EXCHANGE PROGRAM AND STUDIES ABROAD

The University of Southern Colorado values the benefit of an education in international settings. Consequently, the university encourages students with second language proficiency, when appropriate, to enroll in international study programs. Students wishing to increase their cultural awareness, second language proficiency or competency in subjects offered abroad are encouraged to contact the Center for International Programs. USC presently offers exchange opportunities in England, France, Germany, Indonesia, Italy, Japan, Malaysia, Mexico, Spain, and Thailand.

For more information on any of the above mentioned topics, please call (719) 549-2329, e-mail: intprog@uscolo.edu or visit our website at <http://www.uscolo.edu/intl>.

AMERICAN LANGUAGE ACADEMY

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

Although USC credit is not provided for ALA courses, USC students may enroll in the academy's classes to improve English proficiency.

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 potential degree-seeking students must meet the university's international admissions requirements. See above section for information.

American Language Academy offices are located in the Occhiato Center, Room 121. Contact 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.

CENTERS FOR ACADEMIC AND CAREER DEVELOPMENT

The Centers for Academic and Career Development (CACD) are a team of three important academic centers working together to provide one-stop shopping service to USC students. They include the Academic Advising Center, USC Learning Center and the Career Center. The mission of CACD is to help students achieve academic, personal and career success by providing optimal support services in the areas of academic advising, learning strategies, and career planning. CACD strives to enhance accessibility to all students with particular attention to architectural barriers including physical, visual and auditorial challenges. The CACD is located in the Suite 232 of the Psychology building and is responsible for the following functions:

Academic Advising Center

The Academic Advising Center provides students with support and assistance to enhance student success, learning, personal, and career development during their college transition period and beyond. Services and programs include: academic advisement of undeclared and pre-business students, career development and self-exploration exercises, computerized career guidance programs, interest inventories (Strong Interest Inventory and other assessments), and Early Alert System (links students who are experiencing academic difficulty with appropriate support services). The Center develops continuous programs to expedite career decision making and declaration of academic majors via career exploration courses, academic majors fair, seminars, and workshops.

Orientation

At the beginning of each semester and throughout the summer, orientation sessions for transfer and first-year students are offered. Students meet key academic and administrative personnel, learn about university policies, complete math and English placement test, get a financial aid update, receive academic advising, and register for the upcoming semester. A separate parents program is held along with the students program. All new students are encouraged to attend one of the orientation sessions.

The Academic Advising Center provides information and schedules for orientation programs. The Admissions Offices also implements other opportunities for campus visits.

USC Learning Center

Writing Room Program

USC's Writing Room Program provides help with any writing need students may have - essays, creative writing, research papers, resumes, and scholarship

applications, just to mention a few. Students can get help at any stage of the writing process from brainstorming to the final draft.

The Writing Room is also the home of the OWL, Online Writing Lab, and *The Hungry Eye*, USC's literary magazine. Look for the OWL at: <http://www.uscolo.edu:8080/public/writectr>

For further information, please contact Sharon Hatton-Montoya at (719) 549-2225 or hatton@uscolo.edu

Academic Enhancement Program

The Academic Enhancement Program is designed to help all students strengthen their study skills and academic performance. Students learn techniques that can help them remember and retrieve information for exams and practical applications. Students also learn to generate and maintain a structured study schedule to better help them manage their time. Test-taking skills are reinforced to strengthen students' confidence at exam time.

For further information, please contact Donna Nivens-Aragon at (719) 549-2901 or dnivens@uscolo.edu

The Disability Services Program

The Disability Services Program provides opportunities for students with documented disabilities to receive reasonable academic accommodations. Adaptive-technology accommodations include, but are not limited to voice-activated computers, scanners, text enlargers, text readers, trackball, and Internet access. General procedure accommodations provide for, but are not limited to: recording text books and lectures on tape, note takers, transcription of notes and other material to tapes or computer disks, extended-time for tests and assignments, and recording test responses.

For further information, Contact the Disability Services Specialist at (719) 549-2663, or stokerc@uscolo.edu, or by TDD at (719) 549-2868.

The Residential Outreach Program (ROP)

The Residential Outreach Program (ROP) provides first-year students with opportunities to learn and apply academic skills that will promote student success in a comfortable, non-threatening environment at the Belmont Residence Hall. Examples of topics that are covered include: time management, test taking approaches, and study strategies.

Programs are coordinated through each floor's Resident Assistant (R.A.) and staff from the USC Learning Center.

For further information, contact Lia Sissom at (719) 549-2563 or sissom@uscolo.edu

Testing Services Program

USC is a national test center for standardized tests. These include: Scholastic Aptitude Test (SAT), American College Testing (ACT), Graduate Record Examination (GRE, paper-pencil versions only), College Level Examination Program (CLEP), Miller Analogies Test (MAT), and Foreign Service Officers Written Examination (FSWE). In addition, students can make arrangements to have certain tests, such as those for correspondence courses taken at other institutions, administered and proctored through our testing services program. We also administer and proctor tests for a number of agencies and certification boards. For further information, and for a schedule of fees associated with the various test, please call: (719) 549-2663.

The Collaborative Classroom Program

The Collaborative Classroom Program includes: Reading and Studying Across The Curriculum, Learning Community Study Groups, and Peer Tutoring.

For further information, contact Dr. Cheryl Stoker at (719) 549-2470 or stokerc@uscoledu

The Career Center

The Career Center is a centralized, comprehensive center, positioned to work with students, alumni, employers, faculty and staff. Our goal is to provide opportunities for each USC student and graduate to develop a clear career objective, to obtain career-related work experience, and to learn the skills necessary to conduct a successful job search.

Student Employment

The Career Center coordinates the student employment program (part-time on campus--student hourly and work study, part-time off-campus, and summer employment). The Career Center also works closely with academic departments in coordinating internships and co-op programs. On-campus job openings are currently posted on the bulletin board outside P-232 and will soon be listed on the Career Center's website. Students interested in working on campus must pick up a Referral Form in P-232 **before** beginning work. When students pick up their **first** Referral Form, they must bring documentation proving that they are eligible to work in the United States. Most students bring picture ID's and their social security cards. A list of additional documents can be obtained from the Career Center.

Off-campus part-time jobs are currently posted on bulletin boards located in all major campus buildings and will soon be listed on the Career Center's new website. Students interested in working off campus do not need a Referral Form, and may contact the employers directly.

Professional Employment Assistance

Currently enrolled students may make appointments with a professional staff member to review their job search strategies by calling 549-2581. The services include career planning, résumé and cover letter review, practice interviews, career coaching/advising, and discussing effective strategies for conducting a successful self-directed job search.

Employer Resources

Conducting employer research is an essential strategy in your job search and in preparation for an interview. Brochures and videotapes that describe employer organizations are available in P-232 and in the reference section of the University Library. Students can also make use of the Internet in conducting employer research. Full-time professional job postings and internship announcements are available in the Career Center and soon will be accessible from the Career Center's website.

On-Campus Recruiting Program

Employers visit USC during the fall and spring semesters to meet current students, graduating seniors, and alumni to share information on current and/or prospective employment opportunities. Schedules listing on-campus recruiting activities by employers are available in P-232 and will soon be listed on the Career Center's website.

Students interested in interviewing with a recruiter must sign-up through the Career Center. Students are expected to keep all interview appointments with recruiters unless unusual circumstances arise. Students who are "no-shows" will not be allowed to participate in any additional on-campus interviews until they have submitted a letter of apology to the employer and met with a professional staff member in the Career Center.

Career and Education Fairs

All USC students are encouraged to begin planning their careers early by attending and talking to employers at on-campus career fairs. Freshman and sophomores can explore career options for their majors with a wide variety of employers. Juniors and seniors can network with employers to learn about employment opportunities including internship or co-op programs and full-time professional employment.

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 temporary, seasonal, and part-time jobs. The center also includes summer full- and part-time positions as well as internships. As part of a comprehensive career center, the

program is committed to serving the educational purposes of the university. The center offers career counseling and teaches effective job search skills.

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.

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 TRIO federally funded program providing an array of services to first-generation, low-income and students with physical or learning disabilities. Some of the services provided by SSS are tutoring, counseling, academic advising, mentoring and assistance in the financial aid process. The program is designed to improve the retention and graduation rate of our program participants.

In order to qualify for Student Support Services, students must meet the following:

- 1) Enrolled or accepted for enrollment in the university and need academic support.
- 2) Be a first-generation student.
- 3) Must meet the low-income criteria; and/or
- 4) Show recent documentation of their disability.
- 5) Must meet other criteria outlined by the U.S. Department of Education.

Students who meet any of these requirements are encouraged to apply. For more information please 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 in downtown Pueblo.

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 postsecondary education.

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 2.5000 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 evening 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

KTSC-TV

KTSC-TV, Channels 8 and 15, a non-commercial public television station licensed by the Federal Communications Commission to the university, operates as a public service under the supervision of the provost. The station broadcasts 24 hours per day reaching western Kansas, to north of Colorado Springs, to northern New Mexico and to eastern Utah. The broadcast schedule consists of cultural, public affairs and educational programming for viewers of all ages.

KTSC-TV is affiliated with the Public Broadcasting Service and the Pacific Mountain Network. Television production courses offered through the department of

mass communications are taught at the Buell Communications Center which is the home of KTSC-TV. Advanced students in mass communications and electronics receive academic credit for working in the daily operation of the station.

Occhiato Center

During the academic year, the Occhiato Center is open regularly from 6:30 a.m. to 10 p.m. weekdays and as scheduled events require. The center is open on Saturdays and Sundays 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, current magazines, classroom supplies, sundries, calculators, greeting cards, and sport and T-shirts are among the many items sold in the bookstore. Hours of operation are printed in the semester course bulletin and on the bookstore entryway.

Identification Cards

All students enrolled should obtain an ID card, provided by the Occhiato Center office, room 102, during regular working hours, Monday through Friday, from 8 a.m. to 5 p.m. There is a \$10.00 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 \$24.00 for a decal, or \$36.00 for a

hang tag - which can be transferred from one vehicle to another.

GRADUATE PROGRAMS

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 admissions and the registrar. 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, industrial and systems engineering (MS), and business administration (MBA). In addition, the university participates in consortial arrangements with Adams State College for graduate degrees in elementary education (MA) and counseling (MA). 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 Adams State College or 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, 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 (\$25 for Fall 1999 applicants, \$35.00 for Spring 2000 and beyond applicants). The fee is non-refundable and is not applicable towards tuition. An application form may be obtained by writing the USC Office of Admissions or by telephoning (719) 549-2461. Students in the elementary education/guidance and counseling consortium programs apply directly to Adams State College. 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 by each institution attended. Records received directly from students cannot be accepted except for advisement purposes. The records of students who previously attended USC will be obtained from the registrar and do not require a student request.
- 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 — 2.700; 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 admissions, 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 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 the dean of the college/school and a copy provided to the student.

When the conditions are met, the director of admissions 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 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 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. 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 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.
- 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 two approved copies of the thesis, one to the program director and one to the University Library.
- 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 IP. 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. 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. 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 or more hours shall be considered as full-time students (six hours, summer); those enrolled for six hours shall be considered as half-time students (three hours, summer).

TIME LIMITS

Courses completed six 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 registrar 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 registrar. 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 registrar.

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 dual 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 registrar.

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
W	- Withdrawal
NC	- No credit

Students may apply no more than six semester hours of work with a grade of C toward graduation requirements. Grades of D, F, IN, U, do not fulfill graduation requirements for graduate programs. Graduate students may repeat a maximum of six semester hours of graduate credit. No course may be repeated more than once. When 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 records office. The previously attempted courses and grades remain in the academic record but are not computed in the overall average.

Transcripts contain an appropriate entry indicating that the grade-point average has been recomputed and stating the basis for recomputation.

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 suspended whenever progress toward good standing is not demonstrated. A graduate student will be suspended whenever the graduate GPA falls below 2.500.

A student may appeal suspension 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 two (2) official copies of the approved thesis and three (3) copies of the thesis abstract to the university. The department will 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 Registrar 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 copy 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 bio-technology, 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)
ANS 510	6	6
ANS 593 (X2)		
MATH 550		
Emphasis Core Courses	7-12	7-12
(Biological emphasis		
OR		
Chemical emphasis		
OR		
Biochemical emphasis		
OR		
Mathematical Sciences emphasis)		
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:
BIOL/CHEM Courses 2

For non-thesis option:
BIOL/CHEM 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 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 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 chose 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 may be required to complete some undergraduate 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 satisfy the university's general admission requirements for graduate study, have a scaled admission score of at least 1,000 and have satisfactory preparation in the key areas. Conditional admission may be given to students with GPAs between 2.500 and 2.700. Undergraduate leveling requirements may be required of students in either regular or conditional status. Graduate students

are required to take all leveling course requirements before finishing 12 hours of graduate work.

The Hasan School of Business offers a test-out course waiver for some business core courses. 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 which are taken by all candidates. Option one requires the international business 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 in the Hasan School of Business.

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 Management	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

BUSAD 575	International Business	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.

COUNSELING (MA)

Adams State College/University of Southern Colorado Consortium Program

Through a consortial arrangement with Adams State College, the University of Southern Colorado provides students the opportunity to earn the master of arts degree in either school counseling or community counseling. All courses are offered in the evenings on the USC campus.

Courses are taught by instructors from the USC and Adams State College psychology departments. The program requires 60 credit hours and meets the academic requirements for the state license in professional counseling. Students complete 20 hours a calendar year, 3 years for completion. Those interested should contact the psychology department at USC (719) 549-2631 or the counseling department at Adams State College (719) 589-7626.

**ELEMENTARY EDUCATION (MA)
SPECIAL EDUCATION (MA)**

Adams State College/University of Southern Colorado Consortium Program

The University of Southern Colorado cooperates with Adams State College in the delivery of a Master of Arts in elementary education and a Master of Arts in special education degree. Continuation of the programs is dependent upon student need, and the cooperating institutions reserve the right to cancel courses or the program as a result of insufficient enrollment.

Typically, the program is offered over a 24-month cycle. To accommodate working students, the program is offered entirely in the evenings and summers on the USC campus. Students may enter the program at any time during the 24-month cycle.

Applicants for the elementary program must have a valid teaching certificate with an elementary endorsement. Applicants for the special education program must have a valid teaching certificate with an elementary or secondary endorsement. Both programs require a cumulative GPA of 2.250 or higher for all college and university work, and a baccalaureate degree. Those interested should apply to Adams State College or contact the USC Center for Teaching, Learning & Research Program Director.

The MA will be conferred upon students who complete the prescribed curriculum of approved course work. Students must maintain a graduate GPA of at least 3.000, submit scores from the aptitude section of the GRE during the first semester of the program, pass the graduate English Usage Exam, and pass a final comprehensive examination. A written plan for the degree must

be filed with the adviser. A maximum of six semester hours of graduate work will be accepted in transfer if the transfer credits correspond to courses in the program. Requests to take the comprehensive exam must be filed one semester ahead.

MASTER OF SOCIAL WORK (MSW)

The University of Southern Colorado and Colorado State University cooperate to offer the master of social work program. The program specialization is directed toward advanced generalist practice with a focus on transitional and underserved 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 and consists of a field placement with students periodically going to the campus of Colorado State University for intensive course work over several days. 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 designation. Applicants with a degree in social work from a baccalaureate social work program accredited by CSWE are eligible to examine out of foundation courses on a course-by-course basis. Those interested may apply to the University of Southern Colorado.

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.

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 105)
Engineering Economy (EN 343)
Probability (MATH 256)
Statistics (MATH 356)

Required Courses

Courses	Title	Credits
EN 503	Ergonomics	3
EN 504	Scheduling and Sequencing . . .	3
EN 520	Simulation and Stochastic Processes	4
EN 530	Project Planning & Control	3
EN 540	Advanced Engineering Economics	3
EN 571	Operations Research	3
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)	Title	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 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 \$8,000 for the academic year. Half-time assistantships require students to work an average of 10 hours per week and carry a stipend of \$4,000 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 15 for the following academic year.

COLLEGE OF APPLIED SCIENCE AND ENGINEERING TECHNOLOGY

Dr. Hector Carrasco, dean

Academic Departments

Automotive Parts and Service Management and Industrial Science and Technology

Majors: Automotive Parts & Service Management (BS)
Industrial Science & Technology (BS)
Facilities Management Option
Facilities Technology Option
Technology Education Option

Minors: Automotive Parts & Service Management
Industrial Science & Technology (Teaching Option)

Computer Information Systems

Major: Computer Information Systems (BS)

Minor: Computer Information Systems

Engineering

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

Minors: Industrial Engineering

Engineering Technology

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

The College of Applied Science and Engineering Technology degree programs reflect USC's polytechnic emphasis and are designed to prepare graduates for professional positions in industry, business and governmental agencies.

The industrial engineering degree program prepares graduates to work with the design, improvement and installation of systems. Students learn to consider human characteristics along with those of materials and equipment to produce quality products and services more efficiently.

The BSIE degree 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.

USC's two-year engineering transfer program provides a solid foundation in basic engineering education for any specialty field the student ultimately selects at USC or at other engineering colleges.

USC offers three baccalaureate degree programs in Engineering Technology: civil, electronics, and mechanical. Engineering Technologists design new products and solve technical problems for state-of-the-art companies throughout the world. Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities.

At the University of Southern Colorado, students receive the knowledge and "hands-on" experience, and can immediately apply this to solving "real-world" type problems. For example, a graduate may design, build, and test parts of satellite communication or industrial control systems, work in manufacturing companies or supervised building construction, working hand-in-hand with scientists, engineers, other technologists, and technicians.

In general, technologists handle the practical engineering tasks, including production, manufacturing, testing, maintenance, inspection, quality control, field engineering, etc. Students in Engineering Technology learn both theoretical and practical concepts in modern facilities, which include the latest in computer-aided design and development equipment. They then learn how to apply that knowledge through practical "hands on" experience which is carefully integrated into each program. Small class sizes insure that students have good access to their professors. All faculty have industrial experience, as well as detailed knowledge of one or more specialties.

USC's baccalaureate degrees in civil, electronics and mechanical engineering technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, Telephone: (410) 347-7700.

USC's automotive parts and service management degree program combines automotive technical courses and practical labs with courses in business and management — an unequalled combination.

Industrial science and technology majors may select options in facilities management to serve in administrative and supervisory positions, or facilities technology to serve in operational positions for major facilities, campuses or complexes. The technology education option prepares majors to teach Technology Education with junior or senior high school state certification or to become technology trainers in industry.

The computer information systems degree program provides students with the necessary skills to integrate

computer systems and applications into a business or technology environment.

Computer information systems graduates are in high demand in today's computerized work force. Graduates of the program are consistently among the highest paid entry-level employees world wide. CIS faculty work closely with local companies to maintain the quality of programs and insure continued relevance of courses.

The master's degree program in industrial and systems engineering uses techniques from engineering disciplines, mathematics, behavioral and physical sciences to analyze and design large scale human/machine/software systems for commercial, governmental and non-profit organizations.

DEPARTMENT OF AUTOMOTIVE PARTS AND SERVICE MANAGEMENT AND INDUSTRIAL SCIENCE TECHNOLOGY STUDIES

Department Chair: Ronald Darby

AUTOMOTIVE PART AND SERVICE MANAGEMENT PROGRAM

FACULTY: Darby, Sefcovic

The major in automotive parts and service management leads to a bachelor of science (BS) degree designed to provide the student with a broad range of management, business and technical skills applicable to 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

- To prepare students with the appropriate 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 a professional advisory committee to advise faculty of APSM courses for the purpose of keeping the curriculum current with industry needs.

Expected Student Outcomes

- Possess technical knowledge in the under-vehicle areas such as braking, steering, and suspension systems.
- Have an understanding of modern design, operation, and repair of engines and related accessory systems.
- Understand and demonstrate by testing; a knowledge of electronic computerized systems of the modern automobile.
- Possess technical knowledge and skills related to power transfer in the automobile to include automatic and manual transmissions, differentials and power transfer systems.
- Have a working knowledge of automotive parts management and operation.
- Be familiar with various computerized service and parts management systems.
- Possess knowledge and understanding of customer relations, automotive management styles and methods.
- Have a working knowledge of automotive-specific financial systems.

General Requirements for the APSM Program

- Graduates of the program are required to complete an approved curriculum with a minimum grade of C earned in all major courses.
- Graduates are required to demonstrate intellectual skills and knowledge in related business courses to satisfy the minor and institutional requirements.
- APSM majors shall demonstrate technological literacy by showing the ability to compose and edit, using a word processor, and to use a spreadsheet for quantitative analysis.
- All APSM students will be required to solve problems appropriate to their discipline; to be able to use the computer for design, analysis, and business transactions; and to demonstrate proper use of measurements and diagnostic equipment.
- Students in the APSM minor program 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 200	Accounting Concepts and Practice	4
BUSAD 302	Ethical Issues	3
PHYS 201/L	Principles of Physics I/Lab (K8)	4
ECON 201	Principles of Macroeconomics (K6)	3
ECON 202	Principles of Microeconomics	3
FIN 330	Corporate Financial Management	3
MGMT 201	Principles of Management	3
MGMT 311	Production/Operations of Management	3
MGMT 318	Personnel Management	3
MKTG 340	Principles of Marketing	3
MATH 156	Intro to Statistics	3
TOTAL		35

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

Students enrolled in the baccalaureate degree programs 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 the evaluation of programs.
- 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.
- 3) Students minoring in APSM must submit a portfolio containing a record of achievement.

INDUSTRIAL SCIENCE AND TECHNOLOGY PROGRAM

Program Coordinator: Michael Hoots
Faculty: Bottini, Hoots

The major in industrial science and technology (IST) leads to a bachelor of science (BS) degree. The program has three 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 IST 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.

Option 3: Technology Education

This option is designed to prepare technology teachers for junior and senior high schools as well as technology trainers for industry. Graduates will be skilled in teaching methods, techniques, organization, curriculum, evaluative processes, safety and philosophy. Students will develop manipulative skills in the use and operation of the latest tools, machines, and products used in industry. They will learn technical information as related to our industrial society. State of Colorado (I.A.) certification requirements will be accomplished by completing the program and teacher certification.

Program Goals

- To graduate students who possess career oriented knowledge and skills necessary to become productive, accountable, and responsible employees 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.

The Facilities Technology graduate will:

- be able to perform the same operational tasks as the facilities management graduate without the managerial and supervisory components.

The Technology Education (teaching) graduate will:

- acquire the knowledge and skills necessary to enter teaching positions in junior or senior high schools and in industry;
- be able to apply technical knowledge and state-of-the-art methods to solving problems in teaching technology;
- acquire a basic technical vocabulary and demonstrate hands-on skills in a variety of manufacturing, construction, transportation and energy processes;
- possess demonstrated competencies in understanding and completing a variety of graphic communications projects using equipment in communications.

General Requirements for the IST Program

- Graduates of this program are required to complete an approved curriculum with a cumulative GPA of 2.500 or better for the technology education option and 2.000 or better for the facilities options.
- Graduates in the technology education option of the IST program should satisfy all the requirements for a teaching certificate in the State of Colorado. Graduates also must complete the requirements of the Center for Teaching and Learning at the University of Southern Colorado.
- Students in the minor programs are required to complete the approved curriculum with a minimum grade of C earned in all minor courses.

Specific Requirements for the IST Major Facilities Management Option

FACILITIES COMPONENT REQUIREMENTS

Courses	Titles	Credits
CET 115	Civil Drafting I	3
CET 303	Construction Management	3
CET 304	Construction Cost Estimating	3
CET 313	Architectural Drafting I	3
CET 314	Architectural Drafting II	3
IST 103	Introduction to Facilities Management & Technology Studies	2
IST 140	Office & Furniture Design	3
IST 206	Commercial & Residential Construction	3
IST 230	Environmental Issues in Facilities	3
IST 306	Building Mechanical Systems	3
IST 309	Building Electrical Systems	3
IST 341	Facilities Planning and Layout	3

IST	350	Facilities Management: Administration	3
IST	351	Facilities Management: Operations	3
IST	430	Industrial Safety	3
IST	431	The Facilities Supervisor	3
IST	442	Computer Aided Facility Management	3
IST	493	Seminar (1-5 var)	3
IST	496	Cooperative Education Internship (1-5 var)	3
Approved Facilities Management Electives			5
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TOTAL			61

BUSINESS MANAGEMENT COMPONENT REQUIREMENTS

Courses		Titles	Credits
ACCT	200	Accounting Principles & Practices	4
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 Management	3
MGMT	368	Project Management	3
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TOTAL			28

GENERAL EDUCATION REQUIREMENTS

Courses		Titles	Credits
BIOL	121	Environmental Conservation	3
CHEM	111/L	Principles of Chemistry w/Lab	4
CIS	110	PC Productivity & the Internet	3
MATH	121	College Algebra	4
PSYCH	100	General Psychology	3
Other General Education Electives			24
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TOTAL			41

Specific Requirements for the IST Major Facilities Technology Option

FACILITIES COMPONENT REQUIREMENTS

Courses		Titles	Credits
CET	115	Civil Drafting I	3
CET	303	Construction Management	3
CET	304	Construction Cost Estimating I	3

CET	313	Architectural Drafting I	3
CET	314	Architectural Drafting II	3
IST	103	Intro to Facilities Management & Technology Studies	2
IST	140	Office & Furniture Design	3
IST	206	Commercial & Residential Construction	3
IST	230	Environmental Issues in Facilities	3
IST	306	Building Mechanical Systems	3
IST	309	Building Electrical Systems	3
IST	341	Facilities Planning and Layout	3
IST	350	Facilities Management Administration	3
IST	351	Facilities Management Operations	3
IST	430	Industrial Safety	3
IST	431	The Facilities Supervisor	3
IST	442	Computer Aided Facility Management	3
IST	493	Seminar (1-5 var)	3
IST	496	Cooperative Education Internship (1-5 var)	3
Approved Facilities Technology Electives			5
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TOTAL			61

Other Required Courses

Not less than 27 credit hours from an approved in-state institution with a transferrable, technology program, core curriculum directly related to facilities operations			27
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TOTAL			27

Specific Requirements for the IST Major Technology Education Option

IST Courses		Titles	Credits
APSM	225	Power Energy Technology	3
ELT	106	Basic Electronics	3
IST	101	Woods Technology	3
IST	103	Intro to Facilities Management & Technology Studies	2
IST	205	Issues & Trends in Technology	3
IST	206	Commercial & Residential Construction	3
IST	304	Transportation Technology	3
IST	307	Industrial Manufacturing I	3
IST	308	Industrial Manufacturing II	3
IST	341	Facilities Planning and Layout	3
IST	377	Curriculum Development & Evaluation in Technology Studies	3
IST	380	Communications Systems Technology	3
IST	401	Production Systems	3
IST	402	Methods/Techniques of Teaching Technology Studies	3
IST	430	Industrial Safety	3
MET	105	It's a Material World	4
MET	111	Introduction to Drafting	3
MET	112	Computer Aided Drafting	3
Approved Technology Education Electives			6
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TOTAL			58

Other Required Courses

Courses		Titles	Credits
BIOL	121/L	Environmental Conservation	4
ED	202	Foundation of Education	3
ED	435	Classroom Management	3
ED	445	Applied Educational Assessment & Instruction K-12	2
ED	460	Educational Media & Technology	3
ED	461	Atypical Students in Secondary Schools	2
ED	488	Student Teaching Secondary	15
IST	205	Issues & Trends in Technology	3
MATH	121	College Algebra	4
PSYCH	100	General Psychology	3
PSYCH	151	Human Development	3
RDG	425	Teaching Reading in Content	2

TOTAL 47

Specific Requirements for the IST Minor (Facilities Management)

IST Courses		Titles	Credits
IST	140	Office and Furniture Design	3
IST	206	Commercial and Residential Construction	3
IST	230	Environmental Issues in Facilities	3
IST	306	Building Mechanical Systems	3
IST	309	Building Electrical Systems	3
IST	350	Facilities Management: Admin	3
IST	351	Facilities Management: Opns	3

TOTAL 21

Specific Requirements for the IST Minor (Teaching Technology Option)

IST Courses		Titles	Credits
IST	100	Woods Technology	3
IST	206	Commercial & Residential Construction	3
IST	304	Transportation Technology	3
IST	377	Curriculum Dev & Evaluation in Technology Studies	3
IST	380	Communications Systems Technology	3
IST	401	Production Systems	3
IST	455	Methods/Techniques of Teaching Technology Studies	3
MET	105	It's a Material World	4

TOTAL 25

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.
- 3) Students minoring in technology education must submit a portfolio containing a record of achievement.

COMPUTER INFORMATION SYSTEMS DEPARTMENT

Department Chair: John Borton

Faculty: Borton, Huff, Knight, Lassila, 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, Internet usage, 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 the C++ and COBOL 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 courses offered by the program.
- Students must complete at least 128 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	Title	Credits
CIS 111	Introduction to Programming & Design	4
CIS 121	Introduction to C++ Programming	4
CIS 150	Computer Information Systems	3
CIS 215	UNIX Operating System	2
CIS 231	COBOL Programming	4
CIS 240	Systems Analysis and Design	3

CIS 253	Advanced C++ Programming	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	Title	Credits
CIS 203	Creating and Accessing Internet Resources	2
CIS 303	Visual Programming	3
CIS 316	Operating Systems Design	3
CENT 321	Advanced Data Structures	3
CIS 357	JAVA Programming	3
CIS 401	Local Area Network Systems Admin	3
CENT 411	Windows Software Development	3
CIS 450	Database Systems II	3
CIS 460	Enterprise Networking	3
CIS 496	Cooperative Education	1-5

Other Required 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	
	OR	
MATH 156	Introduction to Statistics	
	OR	
PHIL 205	Deductive Logic	3-5

select one of the following:

ACCTG 200	Accounting Concepts and Practice	
	OR	
MGMT 318	Human Resource Management	
	OR	
MGMT 320	Organizational Behavior	
	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 two 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 240	Systems Analysis & Design	3
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SUB-TOTAL		7

Personal Computers/Local Area Network Support

CIS Courses	Titles	Credits
CIS Minor Core		7
CIS 121	Introduction to C++ Programming .	4
CIS 150	Computer Information Systems ...	3
CIS 385	PC Architecture	3
CIS 389	LAN Concepts	3
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TOTAL		20

Information Analyst

CIS Courses	Titles	Credits
CIS Minor Core		7
CIS 150	Computer Information Systems ...	3
CIS 203	Access & Create Internet Resources	2
CIS 350	Database Systems	3
CIS Upper Division Electives		6
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TOTAL		21

Databases Systems

CIS Courses	Titles	Credits
CIS Minor Core		7
CIS 121	Introduction to C++ Programming .	4
CIS 150	Computer Information Systems ...	3
CIS 350	Database Systems	3
CIS Upper Division Elective		3
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TOTAL		20

Software Engineer/Programmer

CIS Courses	Titles	Credits
CIS Minor Core		7
CIS 121	Introduction to C++ Programming ...	4
CIS 150	Computer Information Systems	3
CIS 253	Advanced C++ Programming	3
CIS Upper Division Electives		6
<hr/>		
TOTAL		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
EET 250	Electrical Fundamentals	4
EET 254	Introduction to Digital Electronics	4
CENT 255	Introduction to Micro Processors ..	4

Two electives are selected from the following:

Courses	Titles	Credits
CENT 354	Computer Architecture	4
CENT 355	Microcomputer Assembly Language	4
CENT 357	Digital Communications	4

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, Fraser, Hale, Massey, Sarper, Taveira

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 (MS) 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.

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 engineering is a major branch of engineering with applications in manufacturing, service, governmental, and non-profit organizations. 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	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/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	4
EN	342	Manufacturing Processes	4
EN	343	Engineering Economy	3
EN	420	Simulation & Stochastic Processes	4
EN	440	Safety Engineering	3
EN	443	Quality Control & Reliability	3
EN	471	Operations Research	3
EN	473	Computer Integrated Manufacturing	3
EN	475	Facilities Planning and Design	3
EN	477	Operations Planning and Control	3
EN	488	Indus Engineering Design Projects	3
<hr/>			TOTAL 64

Other Required Courses

MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
MATH	256	Probability for Engineers and Scientists	3
MATH	207	Matrix & Vector Algebra	2
MATH	337	Differential Equations I	3
MATH	356	Statistics for Engineers and Scientists	3
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
CHEM	121/L	General Chemistry I/Lab	5
<hr/>			TOTAL 36

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

Courses		Titles	Credits
CHEM	121/L	General Chemistry/Lab	5
EN	103	Introduction to Engineering	2
EN	105	FORTRAN	3
EN	107	Engineering Graphics	2
ENG	101	Composition I	3
ENG	102	Composition II	3
MATH	126/ 224	Calculus & Analytic Geometry I/II	10
PHYS	221/L	General Physics I/Lab	5
<hr/>			TOTAL 33

Sophomore Year

Courses	Titles	Credits
EN 211/212	Engineering Mechanics I/II	6
EN 231/L	Circuit Analysis/Lab	5
EN 321	Thermodynamics	3
EN 324/L	Mechanics of Materials/Lab	4
MATH 207	Matrix & Vector Algebra	2
MATH 256	Probability for Engr. & Scientists	3
MATH 337	Differential Equations I	3
PHYS 222/L	General Physics II/Lab	5
SPCOM 103	Speaking & Listening	3
TOTAL		34

Junior Year

Courses	Titles	Credits
EN 315	Intro to Industrial & Systems Engr.	3
EN 340	Human Performance Engr.	4
EN 342	Manufacturing Processes	4
EN 343	Engineering Economy	3
EN 420	Simulation & Stochastic Processes	4
EN 443	Quality Control & Reliability	3
MATH 356	Statistics for Engrs. & Scientists	3
General Education (K1-K6)		9
TOTAL		33

Senior Year

Courses	Titles	Credits
EN 440	Safety Engineering	3
EN 471	Operations Research	3
EN 473	Computer Integrated Manufacturing	3
EN 475	Facilities Planning & Design	3
EN 477	Operations Planning & Control	3
EN 488	Industrial Engr. Design Project	3
General Education (K1-K6)		9
General Education (K7)		3
TOTAL		30

Specific Requirements for the Minor in Industrial Engineering

EN Courses	Titles	Credits
EN 103	Introduction to Engineering	2
EN 105	FORTTRAN	3
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	4
EN 342	Manufacturing Processes	4
EN 420	Simulation & Stochastic Processes	4
EN 440	Safety Engineering	3
EN 443	Quality Control & Reliability	3
EN 471	Operations Research	3
EN 473	Computer Integrated Manufacturing	3
EN 475	Facilities Planning and Design	3
EN 477	Operations Planning and Control	3
TOTAL		22-25

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), 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. All 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
PHYS 221/L	General Physics I & II/Lab	10
MATH 126/224	Calculus I & II	10
MATH 325	Intermediate Calculus	3
MATH 207	Vector and Matrix Algebra	2
MATH 337	Differential Equations	3
	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 105 or CIS 121).

To transfer to another engineering school will require a good grade point average. Eighteen credits 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, Womack

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	4
ET 202	Statics	3
ET 206	Strengths of Materials	4
ET 300	Project Planning, Scheduling and Management	3
ET 356	Design Seminar	1
ET 456	Senior Project	3
TOTAL		18

Civil Engineering Technology Courses

Course	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
Approved CET Electives		9
Approved Technical Electives		6
TOTAL		55

Math, Science and Computer Courses

Course	Title	Credits
CENT 226	Intro to Programming	2
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
CHEM 111	Principles of Chemistry OR	3
GEOL 101	Earth Science	3
TOTAL		27

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.

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
ENG 101	Composition I	3
MATH 131	Math for Engineering Technology I	4
ET 101	Introduction to Engineering Tech	4
CET 102	Surveying I	3
CET 115	Civil Drafting I	3
TOTAL		17

Freshman - Spring

Courses	Titles	Credits
ENG 102	Composition II	3
MATH 132	Math for Engineering Tech II	4
CET 103	Surveying II	3
CET 116	Civil Drafting II	3
General Education, (K1-K7)		3
TOTAL		16

Sophomore - Fall

Courses	Titles	Credits
MATH 231	Calculus for Engineering Tech I	3
ET 202	Statics	3
CET 203	Dynamics	1
CET 207	Construction Materials & Methods	3
CET 215	Advanced Surveying I	3
CENT 226	Introduction to Programming	2
General Education, (K1-K7)		3
TOTAL		18

Sophomore - Spring

Courses	Titles	Credits
MATH 232	Calculus for Engineering Tech II	3
ET 206	Strength of Materials	4
CET 208	Concrete & Asphalt Materials	3
SPCOM 103	Speaking and Listening	3
General Education, (K1-K7)		3
TOTAL		16

Junior - Fall

Courses	Titles	Credits
PHYS 201/L	Physics I/Lab	4
CHEM 111	Principles of Chemistry OR	3
GEOL 101	Earth Sciences	3
CET 304	Construction Cost Estimating I	3
CET Elective		3
General Education, (K1-K7)		3
TOTAL		16

Junior - Spring

Courses	Titles	Credits
PHYS 202/L	Physics II/Lab	4
CET 305	Construction Cost Estimating I	3
CET 404	Structural Steel Design	3
ET 300	Project Planning, Scheduling & Management	3
General Education, (K1-K7)		3
TOTAL		16

Senior - Fall

Courses	Titles	Credits
ET 356	Design Seminar	1
CET 405	Reinforced Concrete Design	3
CET 411	Hydraulics	3
CET Elective		3
Technical Elective		3
General Education, (K1-K7)		3
TOTAL		16

Senior - Spring

Courses	Titles	Credits
ET 456	Senior Project	3
CET 315	Soil Mechanics Technology	3
CET Elective		3
Technical Elective		3
General Education, (K1-K7)		3
TOTAL		15

Total required credit hours 130

ELECTRONICS ENGINEERING TECHNOLOGY PROGRAM

Program Coordinator: William Huffine

Faculty: 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 function 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 existing 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 programs.
- Majors are required to demonstrate the ability to solve problems, to use computer techniques, and to complete a final senior-year technical project and 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, all EET majors should have a knowledge of electrical circuits, discrete electronic devices, digital circuits, advanced 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	4
MET 105	It's a Material World	4
ET 300	Project Planning, Scheduling, and Management	3
ET 356	Design Seminar	1
ET 456	Senior Project	3
SUB-TOTAL		15

Electronics Engineering Technology Courses

Courses	Titles	Credits
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 412	Communication Systems	4
Tech Elect	Approved Technical Electives	7
SUB-TOTAL		50

Math, Science, and Computer Courses

Courses	Titles	Credits
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
CIS 102	Intro to Basic Programming	4
CIS 121	Introduction to C++ Programming	4
CIS 215	Unix Operating Systems	2
CIS 385	PC Architecture and Systems Software	3
SUB-TOTAL		35

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.

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
ENG 101	Composition I	3
MATH 131	Math for Engineering Technology I . . .	4
MET 105	It's a Material World	4
ET 101	Introduction to Engineering Technology	4
TOTAL		15

Freshman - Spring

Courses	Titles	Credits
ENG 102	Composition II	3
MATH 132	Math for Engineering Technology II . . .	4
EET 121	DC Circuits	4
CIS 102	Introduction to BASIC Programming . . .	4
TOTAL		15

Sophomore - Fall

Courses	Titles	Credits
MATH 231	Calculus for Engineering Tech. I	3
PHYS 201/L	Physics I/Lab	4
CIS 121	Introduction to C++ Programming	4
EET 122	AC Circuits	4
SPCOM 103	Speaking and Listening	3
TOTAL		18

Sophomore - Spring

Courses	Titles	Credits
MATH 232	Calculus for Engineering Tech. II	3
PHYS 202/L	Physics II/Lab	4
EET 211	Electronics I	4
EET 254	Introduction to Digital Systems	4
General Education, (K1-K7)		3
TOTAL		18

Junior - Fall

Courses	Titles	Credits
EET 212	Electronics II	4
CENT 255	Introduction to Microprocessors	4
CIS 215	Unix Operating System	2
CIS 385	PC Architecture and System Software	3
General Education, (K1-K7)		3
TOTAL		16

Junior - Spring

Courses	Titles	Credits
EET 351	Electronics III	4
CENT 354	Computer Architecture Design	4
ET 300	Project Planning, Scheduling, & Management	3
General Education (K1-K7)		3
General Education, (K1-K7)		3
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TOTAL		17

Senior - Fall

Courses	Titles	Credits
CENT 357	Digital Communications	4
ET 356	Design Seminar	1
Technical Elective		4
General Education, (K1-K7)		3
General Education, (K1-K7)		3
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TOTAL		15

Senior - Spring

Courses	Titles	Credits
CENT 358	Computer Networks	3
ET 456	Senior Project	3
EET 412	Communications Systems	4
General Education, see (K1-K7)		3
Technical Elective		3
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TOTAL		16

Total required credit hours 130

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 the 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	4
ET 202	Statics	3
ET 206	Strengths of Materials	4
ET 300	Project Planning, Scheduling and Management	3
ET 356	Design Seminar	1
ET 456	Senior Project	3
SUB-TOTAL		18

Mechanical Engineering Technology Courses

Courses	Title	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 361	Computer Integrated Manufacturing	3
MET 441	Thermal and Fluid Principles II	3
MET 442	Design of Energy Systems	3
MET 460	Instrumentation and Control	3
	Approved MET Electives	6
	Approved Technical Electives	6
SUB-TOTAL		50

Math, Science and Computer Courses

Courses	Title	Credits
CENT 226	Introduction to Programming	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
CHEM 111/L	Principles of Chemistry/Lab	4
TOTAL		32

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.

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
ENG 101	Composition I	3
MATH 131	Math for Engineering Tech. I	4
ET 101	Introduction to Engineering Tech. ..	4
MET 105	It's a Material World	4
TOTAL		15

Freshman - Spring

Courses	Titles	Credits
ENG 102	Composition II	3
MATH 132	Math for Engineering Tech II	4
CHEM 111/L	Principles of Chemistry/Lab	4
MET 112	Mechanical Drafting (CAD)	3
SPCOM 103	Speaking and Listening	3
TOTAL		17

Sophomore - Fall

Courses	Titles	Credits
MATH 231	Calculus for Engineering Tech. I	3
PHYS 201/L	Physics I/Lab	4
ET 202	Statics	3
MET 203	Manufacturing Processes I	4
CENT 226	Introduction to Programming	2
TOTAL		16

Sophomore - Spring

Courses	Titles	Credits
MATH 232	Calculus for Engineering Tech. II ..	3
PHYS 202/L	Physics II/Lab	4
ET 206	Strength of Materials	4
MET 204	Manufacturing Processes II	3
	General Education, (K1-K7)	3
TOTAL		17

Junior - Fall

Courses	Titles	Credits
MET 322	Dynamics of Machinery	3
MET 341	Thermal and Fluid Principles I	3
MET 352	Design of Machine Elements	3
ET 250	Electrical Fundamentals	4
General Education, (K1-K7)		3
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TOTAL		18

Junior - Spring

Courses	Titles	Credits
MET 311	Quality Control	3
MET 441	Thermal and Fluid Principles II	3
MET 361	Computer Integrated Manufacturing	3
ET 300	Project Planning, Scheduling & Management	3
General Education, (K1-K7)		3
General Education, (K1-K7)		3
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TOTAL		18

Senior - Fall

Courses	Titles	Credits
ET 356	Design Seminar	1
MET 442	Design of Energy Systems	3
MET 460	Instrumentation and Control	3
MET Elective		3
Technical Elective		3
General Education, (K1-K7)		3
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TOTAL		16

Senior - Spring

Courses	Titles	Credits
ET 456	Senior Project	3
MET Elective		3
Technical Elective		3
General Education, (K1-K7)		3
General Education, (K1-K7)		3
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TOTAL		15

Total required credit hours 130

THE COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Edward N. Wright, dean

Academic Departments	Majors	Minors
Art	Art (BA, BS)	Art
English/ Foreign Languages	English (BA) Foreign Languages Spanish (BA)	English French Italian Spanish
History/ Political Science/ Social Science/ Philosophy/ Chicano Studies	History (BA) Political Science (BA, BS) Social Science (BA, BS)	History Political Science Social Science Philosophy Chicano Studies
Mass Communications	Mass Communications (BA, BS)	Mass Communications
Military Science (US Army)		
Music	Music (BA)	Music
Psychology	Psychology (BA, BS)	Psychology
Sociology/ Anthropology	Sociology (BA, BS)	Sociology/ Anthropology
Social Work	Social Work (BSW)	
Speech Communication	Speech Communication	Speech Communication Women's Studies

Consortium Master Programs:

Master of Counseling (Adams State College)
Counseling (MA)

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

Chair: Jensen
Faculty: Aviña, Dalton, R. Hansen,
V. Hansen, Marino

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 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 insis-

tence 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	1
	(First Semester)	
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	2
	(Last Semester)	
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TOTAL		33

PLUS

Emphasis area	11	
Art electives selected with an art adviser	6	
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TOTAL		50

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
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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 discipline 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 by use of 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 and/or video tapes, as appropriate.
- As a competency indicator of achievements in the area of art history, part of the portfolio may 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 of each art instructor's classes will be maintained and updated by each faculty member and made available to the student upon request. Class objectives and skills attained during the class will be denoted clearly in the materials.

ENGLISH/FOREIGN LANGUAGES DEPARTMENT

Chair: Sheidley
 Faculty: Barber, Cobián, Covi, Fogelquist, Griffin, Hochman, Illick, Morales, 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.

Requirements for the English Minor

Minor requirements are 20 or more semester credit hours of course work in English numbered 121 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 Center for Teaching and Learning section of this catalog.

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

ENG Courses	Title	Credits
ENG 121	The Writer's Response* (Can be taken in place of ENG 102)	3
ENG 215	Poetry	3
One of the following courses: 3		
ENG 240	Survey of Ethnic Literature	3
ENG 260	Women in Literature	3
Two of the following survey sequences: 12		
ENG 310/312	American Literature I & II	
ENG 341/342	Western World Literature I & II	
ENG 360/362	Literature of England I & II	
One of the following writing courses: 3		
ENG 203	Composition III	
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 adviser.

Specific Requirements for the Bachelor of Arts in English with Secondary Teacher Endorsement

A minimum of 41 credits in English beyond ENG 101 and 102 including:

ENG Courses	Title	Credits
ENG 121	The Writer's Response* (Can be taken in place of ENG 102)	3
ENG 215	Poetry	3
One of the following courses: 3		
ENG 240	Survey of Ethnic Literature	3
ENG 260	Women in Literature	3
Two of the following survey sequences: 12		
ENG 310/312	American Literature I and II	
ENG 341/342	Western World Literature I and II	
ENG 360/362	Literature of England I and II	
One of the following writing courses: 3		
ENG 203	Composition III	
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 412	Literature for Adolescents	2
ENG 452	History of the English Language	3
ENG 481	Literary Criticism	3
ENG 493	Senior Seminar	3

Specific Requirements for the Bachelor of Arts in English with Elementary Teacher Endorsement

A minimum of 38 credits in English beyond English 101 and 102, including:

ENG Courses	Titles	Credits
ENG 121	The Writer's Response (Can be taken in place of ENG 102)	3
ENG 215	Poetry	3
One of the following courses: 3		
ENG 240	Survey of Ethnic Literature	3
ENG 260	Women in Literature	3
Two of the following survey sequences: 12		
ENG 310/ 312	American Literature I and II	
ENG 341/ 342	Western World Literature I and II	
ENG 360/ 362	Literature of England I and II	
One of the following writing courses: 3		
ENG 203	Composition III	
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 351	Children's Literature	2
ENG 352	English Syntax and Usage	3
ENG 381	Drama of Shakespeare	3
ENG 452	History of the English Language	3
ENG 493	Senior Seminar	3

***English majors may substitute ENG 121 for ENG 102.**

****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.**

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 201	Spanish Grammar & Composition I	3
SPN 202	Spanish Grammar & Composition II	3
SPN 212	Intermediate Spanish 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 Spanish Grammar & Conversation	3
SPN 302	Advanced Spanish Composition & Conversation	3
SPN 311	Survey of Spanish Literature	3
SPN 312	Survey of Spanish American Literature	3
SPN 360	Literary Theory Trends in Hispanic Literature	3
SPN 493	Senior Seminar	3
Spanish Electives		13
TOTAL		45

*Incoming students with prior study of Spanish will be placed in the program on the basis of scores on a departmental placement exam administered at the beginning of each semester.

Other Required Courses for Spanish Majors

CS 101	Introduction to Chicano Studies	3
HIST 102	World Civilization 1100 to 1800	3
	OR	
HIST 103	World Civilization Since 1800	3

Additional Requirement for Prospective Spanish Teachers

SPN 380	Studies in Spanish Linguistics	2
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A course at the 102 level in another Foreign Language.

Specific Requirements for the Spanish Minor

SPN 101	Beginning Spoken Spanish I	5
SPN 102	Beginning Spoken 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 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 101	Introduction to Italian I	4
ITL 102	Introduction to 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

Specific Requirements for Teaching Endorsements in Spanish

A minimum of 32 semester credit hours as approved by a departmental adviser.

For teaching endorsement requirements, see the *Center for Teaching, Learning and Research* section of this catalog.

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 appraises the department of innovations worthy of consideration.

HISTORY/ POLITICAL SCIENCE/ PHILOSOPHY/CHICANO STUDIES/GEOGRAPHY DEPARTMENT

Chair: D. Sandoval
Faculty: Aichele, Baca, Berardi, Carter, Driscoll,
Loats, Otis, Sandoval, Spade, Wright

The programs in history, political science, philosophy, Chicano studies 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 skills in research methods to gain knowledge of a given area of history; and
- To prepare students to continue personal study and learning about specific subject areas in the discipline on an independent basis.

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
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TOTAL		36

Secondary Education Track for the History Major

Complete course listing for this track may be obtained from a History Program adviser or from the College of Humanities and Social Sciences office, Psychology 100.

Specific Requirements for the History Minor

HIST Courses	Title	Credit Hours
Nine hours selected from the following courses . . 9		
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
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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 [handouts, assignments and exams] will be

kept in a central file in the department office to enable qualified students to discover how courses are adapted towards program goals.

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 subfields 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 course orientations in political science: 1) public administration and policy, 2) American political institutions and politics, 3) comparative and international 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	3
OR		
POLSC 202	World Politics	3
POLSC 250	Scope and Methods	3
POLSC 370	Political Thought	3
POLSC 493	Senior Seminar	3
		TOTAL 15

Emphasis in Public Administration and Policy*

POLSC 102	State and Local Government	
OR		
POLSC 103	Urban Politics	3
POLSC 330	Introduction to Public Admin	3
POLSC 340	Public Policy	3
POLSC 490	Practicum in Politics and Public Service	3
MGMT 310	Principles of Management	3
MGMT 320	Organizational Behavior	3
ECON 330	Public Finance (ECON 201/202 Preq.)	3
		TOTAL 21

*Especially appropriate areas of concentration or minors include 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 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
POLSC	Political Science Elective	3
		TOTAL 21

Emphasis in American Institutions and Politics

POLSC 102	State and Local Government	
OR		
POLSC 103	Urban Politics	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
POLSC	Political Science Elective	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 101	American National Politics	3
POLSC 201	Comparative Politics	3
OR		
POLSC 202	World Politics	3
Political Science Electives		18
		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

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
ENG 341	Western World Literature I	3
ENG 342	Western World Literature II	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
CS 246	History of Mexico	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
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	20 th Century Spanish Literature	3
SPN 462	19 th 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.

PRE-LAW PROGRAM

Although a political science major, or minor, is not required, students interested in attending law school should consult the department's pre-law adviser as early as possible.

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	3
		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
		OR	
PHIL	401	Epistemology Seminar	3
		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.

CHICANO STUDIES PROGRAM

Program Coordinator: J. Baca

The Chicano 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 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 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 studies courses will display an adequate and measurable knowledge of the subject matter within the course.
- Students in Chicano studies courses will develop an understanding of the relationships of ethnic groups within American society by viewing the academic study of Chicanos 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 Studies Minor

Twenty-four hours: 15 required, nine elective. The student will choose three of the first four classes, and the seminar.

CS Courses	Titles	Credits
CS	101 Introduction to Chicano Studies	3
CS	205 La Chicana	3
CS	493 Seminar in Chicano 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 Labor History in the U.S. 3
- CS 489 Borderlands 3

Electives 12

TOTAL 24

Electives may be selected from Chicano studies courses, several of which are cross-listed with other departments, or by approval of the Chicano studies coordinator, from courses in such areas as Spanish, history, psychology, sociology, and social work, among others.

CS/ENG	220 Survey of Chicano Literature	3
CS	230 Chicano: Social and Psych Study	3
CS/WS	240 Chicana Writers	3
CS	291 Special Topics	1-3
CS	303 Chicano Labor History in the U.S.	3
CS	335 Health in the Chicano 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 studies minor, the Chicano studies coordinator will initiate a "Chicano 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 studies coordinator will retain a copy of examinations administered in Chicano 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.

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

Chair: Anderson
Faculty: Anderson, Ebersole, Joyce, Miller, Mullen, Orman, Pavlik

The mass communications department 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, broadcast news direction and production, public relations, advertising, video production, and interactive media.

Emphasis areas, or sequences, require 21 to 22 additional credit hours of course work beyond the mandatory 24-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, MACOM 224 and 260.

USC's Public Broadcasting System affiliate, KTSC-TV, provides laboratory training and on-campus jobs for interested students. Prerequisites: MACOM 226 and 260.

Department Goal

The primary goal of the mass communications department 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 four emphasis areas offered by the department:
News-Editorial-Journalism
Advertising
Telecommunications (TV or Radio Production)
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 mass communications faculty member will keep, in the mass communications 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 major on a course-by-course basis.
- Together with faculty advisers, students enrolled in the mass communications program should complete all required lower-division courses (100-200 level) by the end of the sophomore year in the program. Upper-division students (300-400 level) must have special permission to enroll in lower-division courses.
- Writing skills form the basic platform for the entire program of mass communications at USC. Students are required to maintain a minimum grade-point average of 2.500 through a prerequisite sequence of writing classes beginning with MACOM 201, 202, 222, and 223 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 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 a degree in mass communications must achieve a total grade-point average of 2.500 within the major. The GPA will be calculated on all courses with the MACOM prefix appearing on the student's transcript.
- Students graduating from the University and majoring in Mass Communications should pass all MACOM courses with a grade of C or better, but students will not be required to repeat D grades as long as the 2.500 MACOM grade point average is achieved.
- While it is necessary for mass communications 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 Major:

Specific Requirements for the Mass Communications Major Core

MACOM Courses	Titles	Credits
MACOM 101	Media and Society	3
MACOM 110	Career Orientation	1
MACOM 201	News Writing	3
MACOM 216	Advertising	3
MACOM 265	History of Journalism	3
MACOM 280	Public Relations	3
MACOM 411	Journalism Law and Ethics	5
MACOM 493	Mass Media Seminar	3
<hr/>		TOTAL 24

Specific Requirements for the Emphasis in Telecommunications (Radio Production Track)

MACOM Courses	Titled	Credits
MACOM 222	Broadcast News Writing	3
MACOM 223	Radio-TV Script Writing	3
MACOM 224	Broadcast Announcing	3
MACOM 250/350	Media Lab/Radio (variable) (Prerequisite MACOM 224, 260)	3
MACOM 260	History/Reg of Telecom	3
MACOM 320	Broadcast Programming	3
MACOM 425	Audience Research Methods	3
<hr/>		TOTAL 21 + 24 Core = 45

Specific Requirements for the Emphasis in Telecommunications (Television Production Track)

MACOM Courses	Titles	Credits
MACOM 223	Radio-TV Script Writing	3
MACOM 260	Introduction to TV Production	4
MACOM 326	History/Reg of Telecom	3
MACOM 425	Advanced TV Production	4
MACOM 426	Audience Research Methods	3
MACOM 426	TV Documentary Production	5
<hr/>		TOTAL 22 + 24 Core = 45

Specific Requirements for the Emphasis in Public Relations

MACOM Courses	Titles	Credits
MACOM 202	Feature Writing	3
MACOM 311	Copy Editing and Makeup	3
MACOM 421	PR Case Problems	3
MACOM 422	PR Campaigns	3
MACOM 423	Writing for Public Relations	3
MACOM 425	Audience Research Methods	3
MACOM Electives	. . . . .	3
<hr/>		TOTAL 21 + 24 Core = 45

Specific Requirements for the Emphasis in Advertising

MACOM Courses	Titled	Credits
MACOM 302	Advertising Writing	3
MACOM 316	Advertising Campaigns	3
MACOM 425	Audience Research Methods	3
MKTG 340	Principles of Marketing	3
MACOM Electives		9

TOTAL 21 + 24 Core = 45

Specific Requirements for the Emphasis in News-Editorial Journalism

MACOM Courses	Titled	Credits
MACOM 202	Feature Writing	3
MACOM 250/350	Media Lab (variable)	1-3
MACOM 305	News Reporting	3
MACOM 311	Copy Editing and Makeup	3
MACOM 445	Reporting Public Affairs	5
MACOM Electives		6

TOTAL 21 + 24 Core = 45

Co-curricular Requirements

1) The thrust of the mass communications department is pragmatic, therefore, all students are encouraged to be involved in opportunities provided by participation in the following media labs:

- Advertising
- Desktop Publishing and design
- USC TODAY newspaper
- KTSC-FM (campus radio)
- KTSC-TV (campus PBS affiliate)
- USC Communique (alumni/foundation news letter)

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 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 Minor

Students desiring a minor in mass communications must complete 21-credit hours approved by their minor area advisor and MUST include MACOM 101, 110 and 201. The minor may not include more than 3 credits of laboratory work. Minors should provide work samples for inclusion in an academic portfolio. Minors must achieve no less than a 2.000 GPA in MACOM-prefix courses.

Outcomes Assessment Activities

Each mass communications major or minor is required to complete a diagnostic writing sample during the first year on campus and preferably during the assessment period established in Career Orientation, (MACOM 110). 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 mass communications major or minor is required to maintain an academic portfolio of all salient work or projects completed while in the department.

The expectations and requirements for the academic portfolio are described for each student during the Career Orientation class required of all mass communications majors and minors. The portfolios are proctored by the emphasis advisers and progress is monitored during advisement. 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 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.

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.

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 graduate can claim the material after that period. The department will continue every effort to track graduates in order to gather further indicators of success.

During 1998-99, the department will be developing Integrated Communications offerings in advertising and public relations. See your adviser for details.

MILITARY SCIENCE (US ARMY)

Professor of Military Science: Lieutenant Colonel Mario Carrillo; Assistant Professor of Military Science: Major Will Shiffer, Major Kurt Kluge; Senior Military Science Instructors: Master Sergeant Pedro Celestino, Master Sergeant Wayne Crowther.

At the University of Southern Colorado, a student can prepare for service as a commissioned officer in the United States Army, Army National Guard, or Army Reserve. Enrollment in the basic courses (100/200 level) is available to all students. Students who have successfully completed all basic courses, or the Basic ROTC Summer Camp, may enroll in the advanced courses (300/300 level) if eligibility requirements are met. Qualified veterans may enter at any level depending on their class placement. Basic and advanced courses may apply to graduation requirements. Enrollment eligibility questions should be referred to the Professor of Military Science.

MUSIC DEPARTMENT

Chair: Beck
Faculty: B. Beck, Bell, Chi, De Witt, Duncan, Eberhardt, King, Muller, 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, 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. Under the liberal arts degree, the following are offered as career oriented tracks: conducting, church music, community musician, electro-acoustic/experimental music, multi media/music technology, recreation/ management, and music/business.

- 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 and perform musical compositions at a 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: www.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 118	Music Appreciation	3
MUS 161/162	Applied Major	4
MUS 147/147	Functional Piano Class/ Proficiency	2
MUS 170-4;182	Major Ensemble (4 semesters)	4
MUS 185	Symposium (4 semesters) (S/U)	0
MUS 201/L	Theory I/Lab I	4
MUS 202/L	Theory II/Lab II	4
MUS 261/262	Applied Major	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 321/322	Music History/Form I, II	6
MUS 349	Conducting I, Choral	2
MUS 361/362	Applied Major	4
MUS 370-4;382	Major Ensemble (2 semesters)	2
MUS 385	Symposium (2 semesters) (S/U)	0
MUS 400	Orchestration	3
		TOTAL 53

Additional Specific Requirements for the Music Education Major K-12 (Professional Track)

MUS 144	Woodwind Class	1
MUS 145	Brass Class	1
MUS 186	Guitar Class I	1
MUS 241	String Class	1
MUS 242	Percussion Class	1
MUS 246	Voice Class	1
MUS 350	Conducting II, Instrumental	2
MUS 352	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 382	Lab Band	1

MUS 385	Symposium (1 semester) (S/U)	0
MUS 461	Applied Major	2

Two additional semester hours are required of piano K-12 majors.

For Piano Majors: MUS 347

TOTAL 14-16

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 382	Lab Band	1
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 15/22

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 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/Lab I	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 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 no later than their penultimate 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

Chair: S. Krinsky

Faculty: Cameron, Frankmann, R. Krinsky, Kulkosky, Levy, Madrid, Mo, 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 conscious experience, 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. Although many employment opportunities exist for bachelor's degree holders, students who seek careers as professional psychologists should consider studies at the graduate level.

The bachelor's degree program in psychology at U.S.C. offers a curriculum which provides the student with an overview of the major subdisciplines of psychology, along with the opportunity for students to select courses to fit their personal interests. Through psychology courses at U.S.C., a student can enhance their career opportunities and gain an academic grounding for professional and graduate training in three emphasis areas: Education/Development, Mental Health, and Experimental.

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 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	
Psychology Emphasis 12, Electives 5; and Breadth 9		26
TOTAL		42

Breadth Requirement

Students must select one upper division course from each of the three emphasis areas (Educational/Developmental, Mental Health and Experimental) for a minimum total of nine hours.

Emphasis Area

Psychology majors may choose one of three emphasis areas. Students electing an emphasis must complete 12 credit hours from the courses listed in that area.

**Emphasis Area I
Educational/Developmental Psychology
(Select 12 credits)**

PSYCH 205	Sport Psychology	3
PSYCH 251	Infancy, Childhood & Preadolescence	3
PSYCH 252	Adolescence, Adulthood & Aging ..	3
PSYCH 335/L	Motivational/Lab	4
PSYCH 342	Educational Psychology	3
PSYCH 351	Psychology of The Exceptional Individual	3
PSYCH 353	Theory & Research in Development	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	Perception/Lab	4
334L		
PSYCH 336	Learning/Lab	4
336L		
PSYCH 337	Memory and Cognition/Lab	4
337L		
PSYCH 352	Social Psychology	3
PSYCH 410	Advanced Data Analysis	3
PSYCH 466	Psychology of Biofeedback	3

Other Requirements for the Psychology Major

- A minimum grade of C in all psychology courses counting toward the major.
- A minimum of 24 credits of upper-division coursework in psychology.
- A maximum of six credit hours of field experience and/or individual projects may be applied towards the 35 hours required.

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.

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

Chair: Wintermute
Faculty: Baca, Gonzales, Mertlich

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

SOC 101	Intro to Sociology	3
PSYCH 100	General Psychology	3
CS 101	Intro to Chicano Studies	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**

Chair: W. Wright

Faculty: Calhoun-Stuber, Forsyth, Gomme, Green, Hughes, Keller, Wells

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 rehabilita-

tion, 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.

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

SOC	Titles	Credits
101	Introduction to Sociology	3
210	Techniques of Analysis	3
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

Required: (9 hours)

SOC	203	Criminal Justice System	3
SOC	303	Criminology	3
SOC	306	Delinquency & Juvenile Justice	3

Electives (18 hours chosen from among):

SOC	155	Minority and Ethnic Relations	3
SOC	201	Social Problems	3
SOC	305	Crime and Women	3
SOC	351	Social Deviance	3
SOC	353	Penology	3
SOC	356	Social Stratification	3
SOC	359	Community Corrections	3
SOC	404	Poverty	3
SOC	405	Law and Society	3*
SOC	407	Family Violence	3
SOC	409	Victimology	3
SOC	410	Structural & Elite Crime	3
SOC	411	Police & Society	3
SOC	420	Criminological Theory	3*
SOC	430	Industrial Organization	3
SOC	432	Organizational Theory	3
SOC	451	Culture, Deviance, & Psycho- pathology	3
SOC	491	Special Topics	1-3
SOC	492	Research Methods	3
SOC	494	Field Experience	3-12
Other approved course			3

TOTAL 27

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.

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 2.500 cumulative GPA in the major is required for student teaching.
- * General education requirements K3, K4, K5, and K6, are met by the social science core requirements. However, the elementary education minor requires some grades higher than the institutional minimum in the Skills Component, and some specific coursework within the Knowledge Component for completion of the minor. Since the Colorado Department of Education changes its Rules governing the licensing of teachers within the state from time to time, students seeking licensure should maintain close contact with their Center for Teaching, Learning and Research advisor as well as their major advisor.

Specific Requirements for the Social Science Major

General Track Credits

Social Science Core	25
Specialty Core	24

Elementary -- Middle Childhood Track

Social Science Core	48
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Specific Requirements for the Social Science Minor

- Completion of 24 semester hours of credit in courses falling under the definition of "social sciences." See your social science advisor for a description of the current list and associate denotations.

Developments

In an effort to comply with the Educator Licensing Act of 1991 as revised December 13, 1996 and adopted by the Colorado State Board of Education on September 11, 1997, the College of Humanities and Social Science, through its affected Departments, is in the process of making the necessary changes in the preparation programs requiring adjustments. The primary level affected by these changes is the social studies education endorsement for early adolescence/young adult (secondary). In an effort to meet the new Rules requirements, the history and political science departments have made curricular adjustments to enable prospective teachers affected under the new Rules to meet the new standards. The changes incorporated to date are illustrated under this section.

Students anticipating teaching social studies at the "secondary" level need to keep in close contact with their academic major advisor as well as their advisor in the Center for Teaching, Learning and Research. By doing so, they can keep abreast of the evolving structural changes taking place.

SPEECH COMMUNICATION PROGRAM

Faculty: Aldag, O'Leary, Sherman

The program of speech communication aims to enhance students' knowledge and skills of verbal expression: to acquaint students with significant works of rhetoric; to cultivate their aesthetic appreciation for discourse; and to develop skills in analyzing, composing, expressing, interpreting, and evaluating discourse. It also offers a course of study preparing one for graduate work in communication disorders.

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.

Students in speech communication participate actively in co-curricular activities closely integrated with the academic curriculum. Communication disorder students 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
SPCOM 250	Intro to Communication Disorders	2
SPCOM 260	Language Acquisition & Linguistics	3
SPCOM 324/L	Anatomy of the Head, Neck & Chest/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
PSYCH 100	General Psychology I	3
PSYCH 251	Infancy, Childhood & 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
PHYS 361	Physics of Sound	3
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 participation in student organizations, clubs, jobs, or other activities related to the program of study in speech.

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 department operations and procedures.

WS Electives:

WS/PSYCH/ SW/POLSC	105	Understanding Human Diversity	3
WS/CS	205	La Chicana	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/MACOM	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/MACOM	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/VARIES	491	Special Topics (topics vary)	3

No more than two electives may be from the same department. 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, Carol Loats, Psych 117, 549-2348, or any member of the Women's Studies Coordinating Committee.

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	205	La Chicana	3
		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

THE COLLEGE OF SCIENCE & MATHEMATICS

Dr. Jack A. Seilheimer, dean

Academic Department	Majors	Minors
Biology	Biology (BS)	Biology
Chemistry	Chemistry (BS)	Chemistry
Exercise Science, Health Promotion and Recreation	Exercise Science, (BS) Health Promotion	Exercise Science, Health Promotion
	Recreation (BS)	Recreation Physical Education Coaching
Mathematics	Mathematics (BA, BS)	Mathematics
Nursing	Nursing (BSN)	
Physics	Physics (BS)	Physics Physical Science
	Master of Science in Applied Natural Science (MSANS)	

USC offers strong majors in science, mathematics, nursing, exercise science, health promotion and recreation with several options designed to accommodate the varied professional goals of students. Teacher certification is available in biology, chemistry, physical education, mathematics and physics as well as school nurse certification in nursing.

The college's six academic departments and master's degree program are housed in four 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 and Analytical Geometry II
CIS 102	Programming w/Basic OR
CIS 121	Introduction to C++ Programming
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.

BIOLOGY DEPARTMENT

Chair: Dorsch
Faculty: D. Caprioglio, H. Caprioglio, Diawara, Gonzales, Herrmann, Martínez, Osborn, Thomas

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 adviser 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 adviser as early as possible. A list of advisers 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 adviser. 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:

- read critically, think about, and review historical and current literature in the biological sciences;
- apply basic knowledge of the related fields of chemistry, mathematics and physics to problem-solving in biology;
- formulate logical hypotheses;
- design and carry out well-designed, well-controlled tests on scientific hypotheses;
- have a knowledge of basic biology terminology;
- have a broad-based background in molecular, cellular and organismic biology; and
- 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 100/L	Principles of 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	4
	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

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
	Statistics (MATH 156 or BUSAD 260 or PSYCH 201)	3

TOTAL 39

In addition to the biology major, the following emphasis areas are available. Complete course listings for each of these emphasis areas may be obtained from the biology department office, Life Sciences building 207.

Biology Emphasis Area Adviser

Biology, Ecology	Martinez
Biology, Genetics	D. Caprioglio
Biology, Microbiology	H. Caprioglio
Biology, Molecular & Cellular	D. Caprioglio
Biology/Chemistry	H. Caprioglio/Herrmann
Environmental Health	Thomas
Medical Technology Program	D. Caprioglio
Pre-Chiropractic	Gonzales
Dental	Dorsch
Forestry & Wildlife	Osborn
Medical & Osteopathic	Gonzales, Dorsch
Occupational	H. Caprioglio
Optometric	H. Caprioglio
Physician Assistant	Gonzales
Physical Therapy	H. Caprioglio
Podiatric	H. Caprioglio
Veterinary	Martinez

Teaching

Elementary/Biology	Diawara
Secondary/Biology	Diawara
Elementary/Physical Science	Osborn
Secondary /Physical Science	Osborn

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	100/L	Principals of 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

Chair: Proctor
 Faculty: Bonetti, Druelinger, Lehmpuhl, Saul, Vorndam, Wilkes

The major in chemistry leads to a bachelor of science (BS) degree and the chemistry curriculum is approved by the American Chemical Society.

Chemistry is a foundation science for many professions and 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 education options to assure each student a sound education in the fundamental areas of modern chemistry as well as valuable educational versatility.

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.

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..."

Program Goals

- To prepare graduates in the discipline of chemistry to become productive members of the profession whether they go into 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.
- 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 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
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
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TOTAL		37

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	37	
CHEM 323	Experimental Physical Chemistry	2
CHEM 421	Advanced Inorganic Chemistry	
	OR	
CHEM 221/L	Inorganic Chemistry/Lab	3
		TOTAL 42

Other Required Courses

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
CIS 102	Introduction to Basic Programming	
	OR	
EN 105	FORTTRAN	3
		TOTAL 23

Institutional and General Education Courses	30
Approved Minor	20
Free Electives	13
TOTAL 63	

Total credit hours 128

• **ACS Certified Option**

Required Chemistry Core	37	
CHEM 221/L	Inorganic Chemistry/Lab	3
CHEM 323	Experimental Physical Chemistry	2
CHEM 411	Biochemistry I	3
CHEM 421	Advanced Inorganic Chemistry	3
CHEM 495	Independent Study	1
Chemistry Electives	3	
TOTAL 52		

Other Required Courses

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
EN 105	FORTTRAN	3
		TOTAL 23

Institutional and General Education	30
Free Electives	3
Approved Minor	20

TOTAL 53

Total credit hours 128

• **Biochemistry Option**

Required Chemistry Core	37	
CHEM 411	Biochemistry I	3
CHEM 412/L	Biochemistry II/Lab II	5

TOTAL 45

Other Required Courses

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
EN 105	FORTTRAN	3

TOTAL 23

Institutional and General Education	27
Biology Minor	23
Approved Electives	10

TOTAL 60

Total credit hours 128

• **Double Major Option**

Required Chemistry Core	37
Chemistry Electives	3

TOTAL 40

Other Required Courses

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
CIS 102	Introduction to Basic Programming	
	OR	
EN 105	FORTTRAN	3

TOTAL 21-23

Institutional and General Education	27
Approved Second Major Minimum	39
Chemistry or Second Major Elective	2
TOTAL	68

Total credit hours 126-128

• **Engineering/Chemistry Option**

Required chemistry core	37
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Other Required Courses

MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
EN	103	Introduction to Engineering OR	
CIS	101	Computers and You	2
EN	105	FORTRAN	3
EN	107	Engineering Graphics	2
EN	343	Engineering Economy	3
Approved Engineering Electives (choose from EN 315, 340, 342, 440, 471, 473, 475, 477)			
			12-15
TOTAL			79-82

Institutional and General Education	30
Free Electives (recommended EN 211, 212, 321)	16-19

Total Credit Hours 128

• **Chemistry/Teacher Certification Option**

Required Chemistry Core	37		
CHEM	221/L	Inorganic Chemistry/Lab	3
CHEM	425	Environmental Chemistry	3
TOTAL			43

Other Required Courses

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	435	Classroom Management	3
ED	440	Methods of Teaching	3
ED	441	Methods of Teaching	3
ED	445	Applied Educational Assessment and Instruction (K-12)	2
ED	460	Educational Media & Technology	3
ED	461	Atypical Students in the Secondary School	3
ED	488	Student Teaching Secondary	15
RDG	425	Teaching Reading in Content Areas	2

TOTAL 74-76

Institutional and General Education	24
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Total credit hours 141 - 143

• **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.
- Faculty advisers maintain complete files on each student. The files contain specific examples of work completed and are reviewed at the end of the sophomore year and during the year of graduation for the purposes of advisement and evaluation of appropriate progress through the curriculum. Upon graduation, the contents of the file revert to the student. However, a copy of the file is maintained in the department for a period of five years in order to track the careers of graduates.
- The file evaluations provide an analysis of how well student outcomes are being met.
- The file evaluations provide an advisement tool for faculty advisers to facilitate proper sequencing of courses and to check for any deficiencies in the student's program.
- The files can be used by the student for the purpose of generating a resume and by the adviser for

the purpose of providing reference letters for the student.

EXERCISE SCIENCE, HEALTH PROMOTION, AND RECREATION DEPARTMENT

Chair: Hooper

Faculty: Aguilar, 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. Exercise Science and Health Promotion and a B.S. Recreation degree as well as four minors.

The B.S. Exercise Science and Health Promotion (EXHP) program currently includes three options of study: Athletic Training, Health Promotion/Wellness and K-12 Physical Education Teacher Preparation. Common to all options of study is a core of exercise science and health promotion courses. Upon completion of these courses, 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 obtaining any of the aforementioned certifications prepares program graduates for jobs in worksite, clinical, fitness center, and YMCA/YWCA 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 a 1500 clinical hour internship, a student can sit for the National Athletic Trainers' Association exam to become a certified Athletic Trainer. Athletic Trainers may find employment in high school, university/college, clinical, corporate, and pro-sport settings.

Students completing the Health Promotion/Wellness option will be eligible to sit for the entry-level 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, 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 37-hour minor in Education, and receipt of a passing score on a battery of Colorado Department of Education tests 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.

Three minors are available in Exercise Science 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 Athletic Training minor is available to all students and is especially well suited for EXHP or Biology majors. The Coaching minor also is available to all students and is ideal for EXHP K-12 Physical Education Teacher Preparation majors as well as any other student aspiring to coach on a part-time basis.

The B.S. Recreation program consists of two options of study: a Generalist and an Outdoor Adventure Education area of emphasis. 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 option are eligible to sit for the Wilderness Education Association Outdoor Leader certification.

A minor in Recreation is available to all students. The minor is ideal for EXHP, social work, sociology, EXHP, and Biology majors as well as students aspiring to be a public/private school teacher.

EXERCISE SCIENCE AND HEALTH PROMOTION 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;
- 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 EXHP 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.

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;
- 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 nutrition with emphasis on heart-healthy and sport-related dietary recommendations;
- Demonstrate an understanding of the models and process of health behavior change; and

- Exhibit knowledge of lifestyle-associated disease risk factor reduction and the components of a health-promoting lifestyle.

Specific Requirements for the B.S. Exercise Science degree:

Core Course Requirements

EXHP	101	Introduction to Exercise Science And Health Promotion	3
EXHP	112	Nutrition	3
EXHP	162	Personal Health	3
EXHP	222	Behavior Facilitation	3
EXHP	343	Measurement and Evaluation	3
EXHP	344	Exercise Physiology	3
EXHP	344L	Exercise Physiology Lab	1
EXHP	364	Kinesiology	3
EXHP	444	Exercise Assessment and Programming	3
EXHP	445	Exercise Leadership	3
TOTAL			28

Option Course Requirements

Athletic Training

EXHP	232	First Aid	3
EXHP	260	Care and Prevention of Athletic Injuries	2
EXHP	289	Practicum in Athletic Training I	1
EXHP	360	Therapeutic Modalities and Rehabilitation	4
EXHP	389	Practicum in Athletic Training II	1
EXHP	442	Advanced Training Room Methods	3
EXHP	450	Evaluation of Athletic Injuries	3
EXHP	489	Practicum in Athletic Training III	1
EXHP	498	Internship	12
TOTAL			30

Health Promotion/Wellness

EXHP	232	First Aid	3
EXHP	288	Health Promotion Practicum	3
MGMT	310	Principles of Management	3
MKTG	340	Principles of Marketing	3
EXHP	382	Lifestyle Disease Risk Reduction	3
EXHP	485	Health Promotion Programs	3
EXHP	487	HP Program Planning/Evaluation	4
EXHP	498	Internship	12
TOTAL			34

K-12 Physical Education Teacher Preparation

EXHP	232	First Aid	3
EXHP	233	History and Principles of PE	3
EXHP	242	Motor Learning	3
EXHP	243	Methods of Rhythmic Activities	2
EXHP	260	Care and Prevention of Athletic Injuries	2
EXHP	322	Methods of Elementary School PE	2
EXHP	345	Methods of Team Sports I	2
EXHP	346	Methods of Team Sport II	2
EXHP	348	Methods of Individual/Dual Sports	3

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 PE	3

TOTAL 34

For teaching endorsement requirements, see the Center for Teaching, Learning and Research section of this catalog.

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 a 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.

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;

MATHEMATICS DEPARTMENT

CHAIR: Chacon

FACULTY: Allen, Barnett, Bronn, Derr, Gill, Johnson, Jones, Louisell, Lundberg, Nichols, Orr, Soto-Johnson

The major in mathematics leads to the degrees 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, and statistics). Faculty advisers work individually with mathematics majors and minors to design programs of study. A list of advisers is available in the departmental office.

Students need to be aware that many mathematics courses have prerequisites. Thus, certain courses within each program must be taken in a particular order.

Department Goals

- To provide students with high-level problem-solving skills of a quantitative and statistical nature based on logical reasoning.
- To provide students with an understanding of the applications of mathematics in other areas such as computer science, economics and management, engineering, physical and life sciences.
- To prepare students for further study in graduate school.
- To prepare students for productive careers in the business world or in teaching.

Expected Student Outcomes

General Requirements

- All mathematics majors must complete the mathematics core curriculum: MATH 126, 207, 224, 307, 320, 325, 327, 350 or 356, and 421. Majors are expected to complete courses at USC in the core numbered above MATH 325.
- 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	3
MATH 320	Intro to Mathematical Thought	3
MATH 325	Intermediate Calculus	3
MATH 327	Intro to Algebraic Systems	3
MATH 337	Differential Equations I	3
either	350 Probability	3
or	256 Probability for Engineers and Scientists	3
and	356 Stats for Engineers & Scientists	3
MATH 421	Advanced Calculus I	3
Upper-division Electives (Excluding MATH 360, 361, 377)		6/9
		TOTAL 42/45

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 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	3
MATH 320	Intro to Mathematical Thought	3
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 377	Math & Tech of Teaching Secondary School Math	3
MATH 419	Number Theory	3
MATH 421	Advanced Calculus I	3
MATH 463	History of Mathematics	3
		TOTAL 45

Other Requirements

PSYCH 100	General Psychology I	3
PSYCH 151	Intro to Human Development	3
ED 102	Teaching as a Career (recommended)	1
ED 202	Foundations of Education	3
ED 435	Classroom Management	3
ED 445	Applied Educational Assessment and Instruction (K-12)	2
ED 460	Educational Media & Technology	3
ED 461	Atypical Student in the Secondary School	3
ED 488	Student Teaching Secondary	15
RDG 425	Teaching Reading in Content Areas	2
		TOTAL 38
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 & 377)		10
		TOTAL 20

* Two of these must be taken at USC.

Specific Requirements for the Math/Physics Double Major

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	3
MATH	320	Intro to Mathematical Thought	3
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	3
		AND	
MATH	356	Stats for Engineers and Scientists	3
MATH	421	Advanced Calculus	3
			TOTAL 35-39

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 39

Other Requirements

		EITHER	
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 advisers 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. Advisers 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, the results of which give some measure of a student's achievement level in comparison with students at other schools throughout the country.

NURSING DEPARTMENT

CHAIR: Steen
 FACULTY: Brown, DePalma, Johnston, Miller, Orr, Sabo, Steen, Williams

The nursing program includes two tracts. 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 Accrediting 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 of 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. 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 NLN-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.

There are three attendance options from which to choose:

- On Campus. (See Kathy Brown for advising)
- Delivered electronically in select distance learning sites via interactive video. (See Tina Orr for advising)
- Delivered on-line over the Internet. (See Tina Orr for advising)

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. (Junior level on Monday, Senior level on Wednesday) Clinical labs are arranged on an individual basis

Department Goals

- To provide quality learning experiences for nursing students which prepare graduates for practice as competent, caring, ethical and accountable entry-level professional nurses.
- To maintain the program curricula congruent with the expectations of health accommodate employers, accreditation bodies, needs of students and the resources of the university as evidenced by program adaptations based upon review of evaluation data and recommendations of the Nursing Department Advisory Board.
- To prepare associate degree and diploma RNs for baccalaureate nursing practice consistent with the Colorado Nursing Articulation Model.

- To collaborate with local and regional health care agencies in joint projects related to education of professional nurses.
- To maintain approval of the Colorado State Board of Nursing and the National League for Nursing Accrediting Commission.

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 which reflect professional ethics and accountability congruent with the American Nurses' Association (ANA) Code of Ethics and the ANA Social Policy Statement and State Nurse Practice Acts in the provision of non-discriminatory nursing care to clients.

Institutional/General Education Courses required for the nursing major (Generic and RN-BSN)

Courses	Titles	Credits
ENG 101	English Composition I	3
ENG 102	English Composition II	3
PSYCH 100	General Psychology	3
SPCOM 103	Speaking & Listening	3
CIS 101	Computers and You	2

also the following K requirements:

Economics, Political Social Systems (K6)	3
International/Multicultural Exper (K3)	3
History (K4)	3
Art/Theater (K1)	3
Literature, Ethics (K2)	3

Required supporting courses for the nursing major (Generic and BSN)

In addition to the General Education Requirements, specific supporting courses for nursing include:

Courses	Titles	Credits
PSYCH 150	Human Development (K5)	3
MATH 156	Statistics (Math)	3
CHEM 111/L	Principles of Chemistry & Lab (K8)	4
BIOL 223/L	Principles of Human Anatomy & Lab (K7)	4
BIOL 224/L	Physiology & Lab (K7)	4
BIOL 112	Nutrition	3
BIOL 206/L	Microbiology & Lab	4

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 Issues and Trends	3
TOTAL		36

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 required grades 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 NLN Comprehensive Nursing Achievement Examination;
- An End-of-Program Evaluation survey and a graduate follow-up survey of nursing graduates and their employers one year after graduation;
- State Board Results (NCLEX) required of graduates prior to professional nursing practice as a registered nurse; and
- Student portfolios consisting of course and clinical projects, clinical evaluations tools, research proposals and scholarly papers.

PHYSICS/PHYSICAL SCIENCE DEPARTMENT

CHAIR: Graham
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 physical science are available for students with a wide spectrum of interests, backgrounds and needs. Physics majors must consult with a departmental 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:

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.

Under all of the above 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/Physical Science Teaching Option:

This is a teacher certification program. Secondary teaching requirements include courses in the physical sciences and supporting areas. In addition to the basic requirements, 14 additional credits are required in one of the physical sciences along with appropriate courses in education. Students preparing to teach at the elementary level may use their broad-area subject matter preparation to meet the 14-hour requirement.

Minors also are available in physics and physical science for students who need a specialized science minor in these fields.

Department 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.
- 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 Course	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 I	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

MATH 126	Calculus and Analytic Geometry I	5
MATH 207	Matrix & Vector Algebra with Appl	2
MATH 224	Calculus and Analytic Geometry II	5
MATH 325	Intermediate Calculus	3
MATH 337	Differential Equations I	3
MATH 338	Differential Equations II	3
Approved Math Elective		3
CHEM 121/L	General Chemistry I/Lab I	5
CHEM 122/L	General Chemistry II/Lab II	5
EN 105	Fortran	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 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

Course	Titles	Credits
MATH 126	Calculus and Analytic Geometry I	5
MATH 207	Matrix & Vector Algebra with Appl	2
MATH 224	Calculus and Analytic Geometry 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 102	Programming w/Basic	3
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		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 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

MATH 126	Calculus & Analytic Geom I	5
MATH 207	Matrix & Vector Algebra w/App	2
MATH 224	Calculus & 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
EN 105	FORTRAN	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	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
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 OR	4
PHYS 431	Electricity and Magnetism	4
PHYS 441	Quantum Mechanics	4
PHYS 492	Research	1
TOTAL		32

Other Required Courses

MATH 126	Calculus & Analytic Geom I	5
MATH 207	Matrix & Vector Algebra w/App	2
MATH 224	Calculus & 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	102	Programming w/BASIC OR	
EN	105	FORTRAN	3
Approved electives in biology			32
OR			
Approved electives in chemistry			22
OR			
Approved electives in mathematics			14
<hr/>			
TOTAL			45-63

ED	461	Atypical Students in the Secondary School	3
ED	488	Student Teaching Secondary	
OR			
ED		Student Teaching K-12	15
RDG	425	Teaching Reading in Content Areas	2
			(For K-12 endorsements, RDG 301 is required in place of RDG 425)
<hr/>			
TOTAL			79 - 84

*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	161	Elementary Concepts in Science II	4
OR			
PHYS	110	Astronomy	3
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	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	Advanced Lab-Elec & Magnetism	1
PHYS	493	Seminar	1
<hr/>			
TOTAL			35 - 36

Other Required Courses

MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Algebra w/App	2
MATH	224	Calculus & 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	22/L	General Chemistry II/Lab II	5
GEOL	101/L	Earth Science/Lab	4
BIOL	121	Environmental Conservation	4
BIOL	162	Personal Health	3
BIOL	100/L	Principles of Biology/Lab	4
CIS	101	Computers and You	2
PSYCH	100	General Psychology	3
PSYCH	151	Intro to Human Development OR	
PSYCH	252	Adolescence, Adulthood & Aging	3
OR			
PSYCH	151/L	Human Development/Adolescence, Adulthood & Aging	6
ED	202	Foundation of Education	3
ED	445	Applied Educational Assessment and Instruction (K-12)	2
ED	435	Classroom Management	3
ED	460	Educational Media & Technology	3

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	161	Elementary Concepts in Science II	4
OR			
PHYS	110	Astronomy	3
PHYS	201/L	Principles of Physics I/Lab I	4
PHYS	202/L	Principles of Physics II/Lab II	4
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TOTAL			11 - 12

Other Required Courses

BIOL	121	Environmental Conservation	4
BIOL	162	Personal Health	3
BIOL	100/L	Principles of Biology/Lab	4
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
GEOL	101/L	Earth Science/Lab	4
CIS	101	Computers and You	2
MATH	221	Applied Calculus: Intuitive Approach	5

Approved electives in chemistry or geology or physics 21-22

PSYCH	100	General Psychology	3
PSYCH	151	Intro to Human Development OR	
PSYCH	252	Adolescence, Adulthood & Aging	3
OR			
PSYCH	151/152	Human Development, Adolescence, Adulthood & Aging	6
ED	202	Foundations of Education	3
ED	435	Classroom Management	3
ED	445	Applied Educational Assessment and Instruction (K-12)	2
ED	460	Educational Media and Technology	3
ED	461	Atypical Students in the Secondary School	2
ED	488	Student Teaching Secondary OR	
ED	489	Student Teaching K-12	15
RDG	425	Teaching Reading in Content Areas	2
			(For K-12 endorsements, RDG 301 is required in place of RDG 425)
<hr/>			
TOTAL			88-93

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

- at some point during his/her senior year (except for those in the physical science option).
- 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 added to as additional information is obtained from student or employer.

The department 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.

Specific Requirements for the Minor in Physical Science

A minimum of 24 credits must be selected from the courses listed below:

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
CHEM	112/L	Intro to Organic & Biochem/Lab	4
GEOL	101/L	Earth Science/Lab	4
GEOL	123/L	Historical Geology/Lab	4
CIS	102	Programming w/BASIC	3
		OR	
EN	105	FORTTRAN	3

Co-curricular Requirements

The department 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 faculty of the physics/physical science department 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 department (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

THE HASAN SCHOOL OF BUSINESS

Dr. Bart H. Ward, dean

Academic Departments	Majors:	Minors:
Accounting	Accounting (BSBA)	Accounting
Business Administration/ Economics	Business/Management (BSBA) • Management • Marketing • Financial Reporting • Finance Economics (BSBA)	Business Administration
	Master of Business Administration (MBA) Joint BSBA/MBA	Economics Marketing Supervisory Management International Business Service Business

Goals of the School

The mission of the Hasan School of Business is to provide quality business education for culturally diverse, traditional and non-traditional undergraduate and graduate students. The school places its priority on educational outcomes, and supports those outcomes with faculty participation in intellectual and service activities. Our curriculum and related activities provide business education and meet the needs of employers. The foundation of our educational programs includes contemporary business practices, management and leadership skills, lifelong learning capabilities, and global business awareness. The Hasan School of Business, in partnership with the community, seeks to enhance the economic well-being of southeastern Colorado.

Program Goals

Wherever possible the Hasan School of Business encourages graduates to obtain professional certification.

The Hasan School of Business graduates will be able to successfully compete for management training positions in large private firms or government units. They will have the business tools needed to be entrepreneurs. The knowledge and skills acquired with the major in management can be used in human resource and operations management. A finance degree prepares the graduate for positions in banking, real estate and insurance. Marketing majors will be able to successfully promote and sell goods and services. The accounting degree will prepare graduates for immediate entry into business, government and as Certified Public Accountants. Economics majors are particularly well prepared to enter graduate programs in business in addition to becoming management trainees.

The graduate should have a broad-based general education which accounts for at least 50 percent of the four-year business degree. The graduate should be

able to communicate and to think logically and critically in a technological society.

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 and other interpersonal skills.
- **Communications Skills:** Effectively communicate ideas, observations, conclusions and recommendations to others in a variety of professional settings using appropriate visual aids when necessary.
- **Leadership Skills:** Demonstrate the ability to influence others in a variety of organizational settings using behaviors and practices which have been identified as effective.
- **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.
- **Entrepreneurial/Intrapreneurial and Small Business:** Demonstrate the innovation and entrepreneurial spirit of small business, including innovation, growth, and customer value perspectives; this applies either in managing or starting a small business or in managing a strategic business unit within a larger corporate structure.
- **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 shape, analyze, validate and communicate ideas using mathematical logic.

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.

Program Goals for the Hasan School of Business Minors

The purpose of the business administration minor is to provide students with an understanding of the fundamentals of accounting, economic and financial principles, 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 minor in accounting is to provide a solid foundation in financial and managerial accounting systems.

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.

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.

Expected Student Outcomes

General Requirements

A business foundation cumulative GPA of 2.000 and cumulative GPA of 2.000 in the business foundation courses is required to continue to the business fundamentals.

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
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 and e-commerce	2
ACCTG	200	Accounting Concepts and Practice	4
ECON	201	Macroeconomics	3
ECON	202	Microeconomics	3
MGMT	201	Principles of Management	3
TOTAL			28

Business Fundamentals (cumulative GPA of 2.000 required in the business core 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.

Courses		Titles	Credits
BUSAD	302	Ethical Issues & Legal Env of Bus .	3
MGMT	311	Operations and Quality Management	3
MKTG	340	Principles of Marketing	3
BUSAD	375	International Business	3
FIN	330	Principles of Finance	3
MGMT	301	Creating and Leading Organizations	3
MGMT	481	Strategy and the Business Experience	4
MGMT	482	The Leadership Experience	2
TOTAL			24

Majors and Emphasis Areas (specific course requirements are detailed later)

Select one:

Accounting (plus the advanced Accounting skill block, required)	14
Economics	12
Business Management	12
Business Management/Finance	12
Business Management/Finance Reporting	14
Business Management/Marketing	12
TOTAL	
12-14	

Professional Skill Blocks (select 1):

A skill block is a set of 9 credit hours or more that are focused on an industry, a managerial emphasis, or some other specific study. The following represent examples of possible interest. Not all will be available at any time due to course availability and student interest. Check with an advisor to determine which are available and the specific courses that comprise the skill block. Other skill blocks may become available at any time. Many of the skill blocks can be extended to a non-business minor with the addition of courses in the specific area. Check with an advisor for those minors.

- Advanced Accounting
- Advertising
- Auto Parts and Service Industry
- Business Communications
- Facilities Management
- Health Care Industry
- Human Resource Management
- International Business
- Not-for-Profit Management
- Real Estate
- Recreation Management
- Retail Management
- Service Sector Management
- Tourism, Resort, and Hospitality Management

TOTAL 9

Open elective (any upper division course; accounting majors and financial reporting emphasis area must take a non-business upper division course)

TOTAL 3

General Education:

MATH 220	4
General Education	35
Other Non-business	13

TOTAL 52

Total for degree 128

Accounting majors &
financial reporting
emphasis area 130

Area Requirements

- A cumulative GPA of 2.000 is required to graduate, except in accounting, where a minimum grade of C in each accounting course is required (except for ACCTG 200).

Minor Requirements

Business students who have chosen majors in business management, economics or accounting automatically satisfy business administration minor. However, students are encouraged to pursue a second minor outside the Hasan School of Business.

Specific Curricular Requirements

Students also must satisfy the university general education requirements, general institutional requirements, and have at least 128 total credit hours with a cumulative GPA of 2.000 to graduate. The coursework over and above that necessary for the business degree requirements must be non-business courses. Non-business courses plus six hours of business statistics plus up to six hours of economics 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. A second minor is recommended. All business students are required to take MATH 121 and MATH 220 and receive grades of C or better in each. At least nine hours of a major or emphasis hours must be taken at USC, but this may be waived at the discretion of the department chair or dean.

Co-curricular Requirements

Co-curricular activities are encouraged for all business students. Included are internships, student clubs, and seminar programs. Student clubs include:

- Student chapter of the Institute of Management Accountants
- Student chapter of the Society for Human Resource Management
- Marketing Club
- Omicron Delta Epsilon (Economics Club)
- Finance Club
- Phi Beta Lambda
- Toastmasters

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 will contain 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;
- records of club and organizational membership;
- Project reports from MGMT 481, Strategy and the Business Experience and
- national standardized test results, if applicable.

Advising

Generally, students enter the business program during the sophomore year. The business foundation is completed sometime in the junior year, and the business fundamentals are completed generally by the end of the junior year. Advisers assess the student's progress at each checkpoint, using the Hasan School of Business advising form.

Department Files

- 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 kept in a central file in the Hasan School of Business office.
- 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.

ACCOUNTING DEPARTMENT

Chair: Watkins

Faculty: Bridges, Regassa, Stratton, Ward

The department offers two plans leading to the award of the baccalaureate degree: The 130-hour BSBA and the 154-hour joint degrees BSBA/MBA.

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.

The 130-hour BSBA Plan

This plan is designed to prepare students for careers in accounting.

The Joint Degrees BSBA/MBA Plan

The BSBA with a major in accounting can also be earned through the joint BSBA/MBA program. Students qualifying for this rigorous program begin taking graduate level courses during their senior year and complete from 42-48 credit hours of graduate study. The program is designed for students interested in augmenting a rigorous study of accounting with the development of managerial leadership skills in preparation for high-level management careers. This program integrates the undergraduate accounting degree program with the masters in business

administration program. Students are awarded both the BSBA and the MBA upon completion of both degree program requirements. Students graduating from the joint degrees program are qualified to sit for the CPA examination under the new 150-hour requirements enacted by most states and recommended by the American Institute of Certified Public Accountants.

Admission and Special Requirements for the Joint Degrees BSBA/MBA Plan for Accounting Majors

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 ACCTG 301 and either ACCTG 311 or ACCTG 320. An admission score of 1,050 is used as a guide for admission to the plan. Students must also complete MGMT 201, FIN 330, and MKTG 340 prior to taking any 500-level MBA courses.

Departmental Goals

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;

In addition, based on selection of accounting courses, students must demonstrate knowledge or skills in one or both of the following areas.

- Cost and managerial accounting, including cost accounting, planning, evaluation, allocation, and budgeting processes;
- Accounting standard setting and the role of professional accounting organizations, government entities, and the various codes of ethics in the accounting profession

Students following the joint degree plan will also demonstrate:

- auditing, including the auditor's report, audit evidence, internal controls and procedures; and
- in-depth knowledge of financial accounting, tax research and planning, and cost management;
- knowledge of management operations;
- an appreciation of the interrelationships among functional areas of a business;
- an understanding of the economic, political and social environment in which businesses function; and

- behavioral skills essential to the manager's role in implementing business decisions.

**Expected Student Outcomes
BSBA Plan**

General Requirements for BSBA Plan:

- Completion of the business foundation (see Hasan School of Business general requirements).
- Completion of the business fundamentals (see Hasan School of Business general requirements).
- Completion of the math requirement (see Specific Curriculum Requirements section).
- Completion of the specific requirements for the major in accounting.

Specific Requirements for the Major in Accounting:

Courses	Titles	Credits
ACCTG 301	Intermediate Accounting I	3
ACCTG 301L	Financial Accounting Lab	1
ACCTG 302	Intermediate Accounting II	3
ACCTG 320	Cost Accounting	3
ACCTG 320L	Managerial Accounting Lab	1
	Advanced Accounting Skill Block	9
Plus select one of the following:		
ACCTG 401	Advanced Financial Acctg	3
ACCTG 430	Acctg Info Systems	3
ACCTG 403	Intermediate Acctg III	3
		TOTAL 23

**General Requirements for the Joint Degrees
BSBA/MBA Plan:**

- Completion of the business foundation (see Hasan School of Business general requirements).
- Completion of the math requirement (see Specific Curriculum Requirements section).
- Completion of the specific requirements for the major in accounting under the joint degrees BSBA/MBA plan.

Specific Requirements for the Major in Accounting and the MBA Under the Joint Degrees Plan:

Courses	Titles	Credits
ACCTG 301	Intermediate Accounting I	3
ACCTG 301L	Financial Accounting Lab	1
ACCTG 302	Intermediate Accounting II	3
ACCTG 311	Federal Income Tax	3
ACCTG 320	Cost Accounting	3
ACCTG 320L	Cost Accounting Lab	1
ACCTG 401	Advanced Financial Accounting	3
ACCTG 403	Intermediate Accounting III	3
ACCTG 404	CPA Law	3
ACCTG 410	Auditing	3
ACCTG 430	Accounting Information Systems	3
ACCTG 511	Tax Planning and Research	3
ACCTG 520*	Advanced Cost Management Systems	3
ACCTG 561*	Current Issues in Auditing	3
ACCTG 571*	Current Issues II	3
ACCTG 598	Internship	3
		TOTAL 44

*One 400-level accounting elective (ACCTG 411 or ACCTG 440) may be taken in lieu of one of the following courses: ACCTG 520 or 561 or 571

BUSAD 502	Business Ethics and Environment	3
BUSAD 575	International Business	3
FIN 330	Corporate Financial Management	3
FIN 530	Financial Management	3
MKTG 340	Principles of Marketing	3
MKTG 540	Marketing Management Strategies	3
ECON 510	Economics for Managers	3
MGMT 482	The Leadership Experience	2
MGMT 511	Production/Operations Management	3
MGMT 520	Management of Organizational Behavior	3
MGMT 565	Management Information Systems	3
MGMT 585	Management Policy and Strategy	3
		TOTAL 35

Graduate-level non-business electives: any two 500-level courses taken outside the Hasan School of Business (beyond the University requirement) . . . 6

Non-business electives (beyond the University requirement) 11

In summary, the joint degrees program has the following requirements:

Non-Business (Including 6 hours at the graduate level)	52
Business Education (Including 27 hours at the graduate level)	59
Accounting Education (Including 9-15 hours at the graduate level)	48
TOTAL	159

Students who have completed part of the joint degree plan and who opt out of the MBA program but who wish to continue towards earning the BSBA are granted credit towards the BSBA (130-hour plan) for 500-level courses taken according to the following schedule:

<u>500-Level Course Taken</u>	<u>300-and 400-Level Course Credit</u>
BUSAD 502	BUSAD 302
BUSAD 575	BUSAD 375
MGMT 511	MGMT 311
MGMT 520	MGMT 301

Students who opt out of the joint degrees plan, and subsequently receive the BSBA, and who want to reenter the MBA program must reenter the joint degrees plan, completing all MBA requirements and one additional non-business course for each business core course for which a 500-level MBA course was substituted per the schedule above.

Specific Requirements for the Minor in Accounting (non-business students)

ACCTG 200	Accounting Concepts and Practices	4
MGMT 201	Principles of Management	3
ECON 202	Microeconomics	3
ACCTG 301	Intermediate Accounting I	3
ACCTG 301L	Financial Accounting Lab	1
ACCTG 320	Cost Accounting	3
ACCTG 320L	Managerial Accounting Lab	1
Electives: three hours from Accounting 300- or 400-level		3
TOTAL		21

A GPA of 2.000 or higher is required for the minor courses.

Co-curricular Requirements

See the Hasan School of Business requirements.

Outcomes Assessment Activities

See the Hasan School of Business outcomes.

BUSINESS ADMINISTRATION AND ECONOMICS AREA

Chair: Watkins

Faculty: Ahmadian, Billington, Browne, Dhatt, Duncan, Eisenbeis, Hanks, Noreiko, Shah, Warfield, Warnock, 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 degree permits students to select one emphasis as a specialty area. Emphasis areas within the major are available in management, finance and marketing. Courses in management, finance and marketing are listed under separate prefixes in this catalog.

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 and an excellent preparation for graduate and professional training in economics, management, banking and law. The finance emphasis area prepares students for careers in financial institutions, insurance, real estate, investments and financial management.

Department Goals

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.

Expected Student Outcomes: Business Management Major

General Requirements

- Completion of business foundations (see the Hasan School of Business general requirements).
- Completion of business fundamentals (see the Hasan School of Business general requirements).
- Completion of the math requirement (see *Specific Curriculum Requirements section*).
- Completion of one of the four emphasis areas.

Specific Requirements for the Emphasis Area in Finance

Courses		Titles	Credits
FIN	331	Managerial Finance	3
FIN	333	Investment Analysis	3
FIN	430	Financial Institutions and Markets	3
FIN	431	Financial Policy Analysis	3
			TOTAL 12

Specific Requirements for the Emphasis Area in Marketing

Courses		Titles	Credits
MKTG	348	Consumer Behavior	3
MKTG	350	International Marketing	3
MKTG	440	Marketing Research	3
MKTG	441	Marketing Strategies	3
			TOTAL 12

Specific requirements for the Emphasis Area in Management

Courses		Titles	Credits
MGMT	318	Human Resource Management	3
MGMT	368	Project Management	3
MGMT	405	Managing Diverse Organizational Forms	3
MGMT	428	Management of Innovation and Change	3
			TOTAL 12

Specific Requirements for the Emphasis Area in Financial Reporting

Courses	Titles	Credits
ACCTG 301	Intermediate Accounting I	3
ACCTG 301L	Financial Accounting Lab	1
ACCTG 302	Intermediate Accounting II	3
ACCTG 320	Cost Accounting	3
ACCTG 320L	Managerial Accounting Lab	1
Plus select one of the following:		
ACCTG 401	Advanced Financial Acctg	3
ACCTG 403	Intermediate Accounting III	3
ACCTG 430	Accounting Info Systems	3
TOTAL		14

Specific Requirements for all minors in the Hasan School of Business: A student must earn a GPA of 2.000 or greater in the minor courses.

Specific Requirements for the Minor in Business Administration

(Non-business students)

Courses	Titles	Credits
ACCTG 200	Accounting Concepts and Practices	4
BUSAD 255	Data Management for Decision Making	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		22

Specific Requirements for the Minor in Marketing

(Non-business students)

Courses	Titles	Credits
ACCTG 200	Accounting Concepts and Practices	4
ECON 202	Principles of Microeconomics	3
MGMT 201	Principles of Management	3
MKTG 340	Principles of Marketing	3
Select three of the following:		
MKTG 341	Sales Force Management	3
MKTG 342	Promotional Strategy	3
MKTG 348	Consumer Behavior	3
MKTG 350	International Marketing	3
TOTAL		22

300 and 400 level courses require junior and senior standing or permission of instructor.

Specific Requirements for the Minor in Supervisory Management

(Non-business students)

Courses	Titles	Credits
ACCTG 200	Accounting Concepts and Practices	4
ECON 202	Principles of Microeconomics	3
MGMT 201	Principles of Management	3
MGMT 318	Personnel Management	3
MGMT 301	Creating and Leading Organizations	3
MGMT 340	Principles of Marketing	3
MGMT 410	Labor Management	3

TOTAL 22

300 and 400 level courses require junior or senior standing or permission of instructor.

Specific Requirements for the Minor in International Business:

Courses	Titles	Credits
ACCTG 200	Accounting Concepts and Practices	4
ECON 201	Macroeconomics	3
MGMT 201	Principles of Management	3
ECON 320	International Economics	3
BUSAD 375	International Business	3
MKTG 350	International Marketing	3

Select 3 hours from a list of approved non-business international courses

TOTAL 22

300 and 400 level business courses require junior or senior standing or permission of instructor.

Specific Requirements for the Minor in Service Business:

Courses	Titles	Credits
ACCTG 200	Accounting Concepts and Practices	4
ECON 202	Microeconomics	3
MGMT 201	Principles of Management	3
MGMT 349	Management of Service Businesses	3
Select 6 hours from the following:		
MGMT 325	Real Estate	3
MGMT 350	Health Industry Management	3
MGMT 380	Hospitality Industry Management	3
MGMT 382	Principles of Domestic and International Tourism	3
MGMT 405	Managing Diverse Organization Forms	3

TOTAL 22

300 and 400 level business courses require junior or senior standing or permission of instructor.

Co-curricular Requirements

See Hasan School of Business outcomes.

Expected Student Outcomes: Economics Major

General Requirements

- Completion of the business foundation (see Hasan School of Business general requirements).
- Completion of business fundamentals (see Hasan School of Business general requirements).
- Completion of the math requirement (see Specific Curriculum Requirements section).
- Completion of the economics core (see below).

Specific Requirements for the Economics Major

Courses	Titles	Credits
ECON 301	Intermediate Macroeconomics	3
ECON 302	Intermediate Microeconomics	3
ECON 320	International Economics	3
ECON 420	Regional Economic Analysis	3
TOTAL		12

Specific Requirements for the Economics Minor

(Non-business students)

Courses	Titles	Credits
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
ACCTG 200	Accounting Concepts and Practices	4
MGMT 201	Principles of Management	3
Plus nine hours from the following:		
ECON 301	Intermediate Macroeconomics	3
ECON 302	Intermediate Microeconomics	3
ECON 320	International Economics	3
ECON 420	Regional Economic Analysis	3
SOC 356	Social Stratification	3
SOC 404	Poverty	3
HIST 305	Development of World Power	3
POLSC 260	Power: Political and Economic Systems	3
TOTAL		22

Co-curricular Requirements

See Hasan School of Business requirements.

Outcomes Assessment Activities

See Hasan School of Business outcomes.

Joint BSBA/MBA Management Major

Students in the joint degree program 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 constitutes a scaled admission score. The undergraduate GPA must be based on a minimum of 75 semester hours of course work. Students must also complete MGMT 310, FIN 330, and MKTG 340 prior to taking any 500-level MBA courses.

General Requirements

- Completion of the business foundation (see Hasan School of Business general requirements).
- Completion of the joint degree business core (see below).
- Completion of the math requirement (see Specific Curriculum Requirements section).
- Completion of one of the five emphasis areas in the Hasan School of Business.
- Completion of the MBA core and 6 hours of graduate electives.

In addition, students must take one of the following options:

1. A non-business minor of at least 21 hours; a skill block will not be required but can be done in addition to or in conjunction with a non-business minor.
2. A skill block plus other courses totaling at least 21 hours, of which at least 13 hours must be non-business.

Joint Degree Business Core (cumulative GPA of 2.000 required)

All students take the business core. The core provides 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 core also is designed to provide the opportunity to integrate their educational experience in business both within a specific discipline and across disciplines.

The graduate courses below count toward the BSBA for students who decide not to complete the MBA portion of the joint degree program.

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
MKTG 340	Principles of Marketing	3
BUSAD 575	International Business	3
MGMT 481	Strategy and the Business Experience	4
MGMT 482	The Leadership Experience	2
MGMT 585	Management Policy & Strategy	3
		TOTAL 27

Specific Requirements for the Emphasis Area in Marketing

Courses	Titles	Credits
MKTG 348	Consumer Behavior	3
MKTG 350	International Marketing	3
MKTG 440	Marketing Research	3
MKTG 540	Marketing Management Strategies	3
		TOTAL 12

Specific Requirements for the Emphasis Area in Management

Courses	Titles	Credits
MGMT 318	Personnel Management	3
MGMT 368	Project Management	3
MGMT 405	Managing Diverse Organizational Forms	3
MGMT 428	Management of Innovation and Change	3
		TOTAL 12

Specific Requirements for the Emphasis Area in Finance

Courses	Titles	Credits
FIN 331	Managerial Finance: policy, planning and control	3
FIN 333	Investment Analysis	3
FIN 430	Financial Institutions and Markets	3
FIN 431	Financial Policy Analysis	3
		TOTAL 12

Specific Requirements for the Emphasis Area in Financial Reporting:

Courses	Titles	Credits
ACCTG 301	Intermediate Accounting I	3
ACCTG 301L	Financial Accounting Lab	1
ACCTG 302	Intermediate Accounting II	3
ACCTG 320	Cost Accounting	3
ACCTG 320L	Managerial Accounting Lab	1
Plus select one of the following:		
ACCTG 401	Advanced Financial Acctg	3
ACCTG 403	Intermediate Accounting III	3
ACCTG 430	Accounting Info Systems	3
		TOTAL 14

JOINT BSBA/MBA Economics Major

Specific Requirements for the Economics Major

Courses	Titles	Credits
ECON 301	Intermediate Macroeconomics	3
ECON 302	Intermediate Microeconomics	3
ECON 320	International Economics	3
ECON 420	Regional Economic Analysis	3
		TOTAL 12

MBA core (cumulative GPA of 3.000 required)

All students in the joint program take the entire MBA core and electives. The core includes the following courses that are included in the joint degree business fundamentals:

Courses	Titles	Credits
BUSAD 502	Business Ethics and Env	3
MGMT 511	Prod/Operations Mgmt	3
MGMT 520	Mgmt of Org Behavior	3
BUSAD 575	International Business	3
MGMT 585	Mgmt Policy and Strategy	3

In addition, the following 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
Approved Graduate Electives		6
		TOTAL GRADUATE 36

In summary, the joint degree plan has the following requirements:

Skill block	0-9
Non-Business Education	39
Non-Business Minor or courses	13-21
Business Education	85-88
TOTAL	145 - 149

Students who have completed part of the joint degree plan and who opt out of the MBA program but who wish to continue towards earning the BSBA are granted credit towards the BSBA for 500-level courses taken according to the following schedule:

500-Level	300-and 400-Level
<u>Course Taken</u>	<u>Course Credit</u>
BUSAD 502	BUSAD 302
BUSAD 575	BUSAD 375
MGMT 511	MGMT 311
MGMT 520	MGMT 301
MKTG 540	MKTG 441

If a student opts out of the joint plan and receives the BSBA degree and subsequently plans to complete the MBA degree, the student must reenter the joint program for completion of the MBA degree.

THE CENTER FOR TEACHING, LEARNING AND RESEARCH

Dr. Joyce Bales, dean

FACULTY: Gutierrez, Opitz, Piazza, Ryan,
Valerio, Weinhouse

The primary mission of the Center for Teaching, Learning and Research is to prepare teachers of quality and distinction. The center is an integral component of a formal alliance between the university and Pueblo School District No. 60. The faculty complement is the first distinguishing feature of the center. Faculty include teacher education and academic discipline specialists as well as public school teachers who serve the center in a variety of roles, i.e., participation in professional development activities, school-based applied research, teacher induction programs, faculty exchanges, student mentor projects, professional development schools, and future teacher organizations.

The second distinguishing feature is the center's commitment to an integrated model of learning that combines theory, professional practice, critical thinking and human behavior. Attention is focused on educational experiences in a variety of settings, including homes, community agencies and schools. Clear outcomes include the collaboration of faculty members, students, parents, teachers, administrators, and human service specialists to improve the quality of teaching and learning pre K-16.

Program Goals

- Prepare teachers of quality and distinction with a broad-based general education, an academic specialty, and the ability to skillfully translate theory into licensure.
- Prepare students to teach effectively in the chosen area of endorsement and to obtain a Colorado teacher license.
- Offer a curriculum which provides a scope and sequence of educational experiences designed to achieve program goals and expected student outcomes.

Expected Student Outcomes

Students will demonstrate:

- a knowledge of subject matter, theories and principles of teaching and learning, and human development;
- the ability to plan and organize for teaching, to implement effective teaching strategies, and to

evaluate strategies in terms of student progress towards learning outcomes;

- the ability to make ethical decisions;
- effective communication in a variety of cultural settings;
- critical thinking about what is said, written, and accomplished in the name of education and schooling;
- continuous professional development; and
- that they are educated persons.

Teaching Endorsement Areas

The Center for Teaching and Learning collaborates with other academic units to offer programs leading to Colorado teacher licensure in the following endorsement areas:

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

Elementary Education (MA), Adams State College/ USC Consortium Program

The University of Southern Colorado cooperates with Adams State College in the delivery of a master of arts in elementary education degree. See the Graduate Programs section of this catalog for details.

Selective Entry and Retention in Teacher Education (SERTE)

Admission

The Center for Teaching and Learning screens completed and signed applications for admission twice during the fall and spring semesters.

Fall semester deadlines:

..... First Friday in March

Spring semester deadlines:

..... First Friday in October

Admission to the teacher education program for any endorsement area requires the following:

- 1) A B average in ENG 101 and 102. Undergraduates must earn a minimum of B in SPCOM 103. If less than a B is earned, they must take and pass the oral proficiency exam. Post-baccalaureate

students who take and pass the oral proficiency examination will not be required to take SPCOM 103.

- 2) A grade of B or better in MATH 109 or C in a higher level mathematics course or an ACT mathematics score of 23 or better.
- 3) A minimum GPA of 2.500 for the last 30 semester hours of university course work.
- 4) Pass the required entry-level basic skills competency tests.
- 5) File an application for admission to the teacher education program which includes the following items:
 - documented evidence of compliance with requirements 1-5;
 - documentation of successful experiences with children or youth;
 - 30 contact hours of volunteer work in math, science & reading in public schools;
 - a writing sample;
 - a completed health clearance form;
 - four written recommendations from faculty members;
 - submission of an advisement sheet for the selected teaching endorsement area(s) listing all courses completed. The sheet should include transfer courses or substitutions (subject to approval by the dean of the Center for Teaching and Learning);
 - submission of an advisement sheet for the chosen academic major;
 - a written recommendation from the Division of Student Life and
 - appropriate signatures on all forms.

* Students may not enroll in any course with the prefix ED (except ED 202) unless they have been fully admitted to the teacher education program.

Further details about the Selective Entry and Retention in the teacher education program are described in the Teacher Education Handbook available in the USC Bookstore.

Retention

Students must pass all professional education courses including reading and bilingual education sequence with a grade of C or better and continue to meet GPA requirements stipulated in the admission to teacher education criteria. Students also must demonstrate characteristics of teachers of quality and distinction in their field experiences and student teaching.

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 methods courses.
- 2) Compliance with all admission to teacher education criteria.
- 3) A GPA of 2.500 or higher in the academic major.
- 4) Grades of C or higher in all professional education sequence courses.
- 5) Demonstration of the characteristics of teachers of quality and distinction.
- 6) Applications must be submitted a semester in advance. First Friday in October for a spring semester assignment; last Friday in February 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 Center for Teaching and Learning.

Colorado Education Licensing Act

Rules for the Colorado Educator Licensing Act went into effect July 1, 1994. These rules apply to all students seeking initial Colorado educator licenses after that date.

The Licensing Act requires an assessment program applicable to all candidates for initial educator licenses in Colorado. The assessments include BASIC SKILLS, LIBERAL ARTS AND SCIENCES, ACADEMIC CONTENT FIELDS AND PROFESSIONAL KNOWLEDGE. The series of assessments is called PLACE (Program for Licensing Assessments for Colorado Educators). Beginning Fall 1995 all students must pass the BASIC SKILLS test prior to admission to the teacher education program.

The University of Southern Colorado is a test site for PLACE. For information about the Licensing Act and PLACE, students should see their adviser or visit the Center for Teaching and Learning office in Library Wing 320.

Specific Requirements for the Elementary Teaching Endorsement

CDE requires the student to complete a major in a subject major or broad field interdisciplinary major drawn from the following areas: liberal arts, science, mathematics, humanities, social sciences or health

and to acquire background knowledge in the areas of language arts, humanities and fine arts, social sciences, science and health. Such background knowledge may be acquired through courses required for general education and the degree major, additional course work, or by other means determined with an education adviser from alternatives approved by CDE.

Courses	Titles	Credits
PSYCH 100	General Psychology	3
ED 202	Foundations of Education	3
ED 210	Human Growth & Development for Educators	3
ENG 251	Traditional Grammar Theory OR English Syntax	3
ENG 352	Children's Literature	2
ENG 351	Elem Concepts in Math I/II	6
MATH 360/361	Elem School Physical Education	3
HP 322	Principles of Elementary Art Education	1
ART 377	Prin of Music in Elem School	1
MUS 351	Creative Dynamics	1
TH 370	Rdg and Language Arts in Elementary School	3
RDG 301	Diagnosis & Remediation of Reading Problems	3
*RDG 450	*RDG 301 or 425 is a prerequisite for this course.	
BBE 401	Teaching the Limited English Proficient Student	2
ED 412	Teaching the Special Child	3
ED 413	Teaching Social Studies	2
ED 414	Teaching Elementary Science and Health	2
ED 417	Teaching Mathematics in Elementary Schools	2
ED 435	Classroom Management	3
ED 460	Educational Media and Technology	3
ED 487	Student Teaching Elementary School	15
TOTAL		64

Specific Requirements for the Secondary and K- 12 Teaching Endorsements

The student must complete an appropriate major as approved by CDE. In addition, the following supporting courses and professional sequence are required:

PSYCH 100	General Psychology	3
ED 202	Foundations of Education	3
ED 210	Human Growth & Development for Educators	3
BBE 401	Teaching the Limited English Proficient Student (Secondary)	2
RDG 425	Teaching Reading in Content Areas	2
(For K-12 endorsements, RDG 301 is required in place of RDG 425).		
ED 435	Classroom Management	3
ED 445	Applied Educational Assessment & Instruction K-12	2
ED 460	Educational Media and Technology	3

ED 461	Atypical Students in the Secondary School	2
(For endorsement in physical Education, HP 465, Adapted Physical Education, is required in place of ED 461).		
	Method course in your major	3-6
ED 488	Student Teaching Secondary OR	
ED 489	Student Teaching K-12	15
TOTAL		34-39

Selecting an Academic Major: Elementary Education

The following academic majors are acceptable for the elementary education endorsement program: art, English, foreign language (Spanish), mathematics, music, psychology, social science, sociology, biology, chemistry, and physics.

Selecting an Academic Major: Secondary Education

The following academic majors are acceptable for the secondary education endorsement program: English, industrial science technology, mathematics, foreign language (Spanish), science, history, political science.

Performance Assessment Activities

In the Center for Teaching, Learning, and Research performance assessment is a process that documents the relationship between its stated mission, goals and objectives, and the actual outcomes of programs and activities. Assessment is multidimensional and comprehensive in that a variety of quantitative and qualitative measures are utilized.

- Student compliance with all teacher education program standards is assessed through the Selective Entry and Retention in Teacher Education (SERTE) process. SERTE requires a GPA of 2.500 for the most recent 30 semester hours and a GPA of 2.500 in the major to qualify for a student-teaching assignment. Student teaching requires a full 15 weeks under the supervision of an experienced teacher endorsed in the student's area of preparation. All performance expectations are listed on the "Student Teacher Progress Indicator" rating form.
- Student records are maintained in the office of the Center for Teaching and Learning. Admission and Student Teaching applications are reviewed by faculty advisers, the center screening committee, and the university's Teacher Education Board twice annually. Decisions are made to accept, to accept conditionally, or reject applications. Students have the right to appeal such decisions through the university's due process procedures.

Assessment focuses on the following characteristics of teachers of quality and distinction:

- Knowledge of the academic specialty is assessed through qualitative and quantitative measures utilized in all courses.
- Knowledge of Colorado Content Standards and assessment K-12.
- Knowledge and understanding of learning principles and theories are assessed through quantitative measures in pedagogy courses, field experiences, and student teaching.
- The ability to plan, organize for teaching, implement and evaluate teaching strategies is assessed by quantitative and qualitative measures in professional education courses, field experiences, and student teaching.
- Personal and professional qualities, including the ability to make ethical decisions, are assessed throughout the program. Both university and school personnel utilize formal and informal rating systems to assess those qualities.
- The ability to think critically about what is said, written, and accomplished in the name of education and schooling is assessed through written assignments, tests, classroom discussion and observation during field experiences and student teaching.

- 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 word processing; and
- explain the need to collaborate with parents, librarians, drama and other teachers to provide an effective language arts program.

READING PROGRAM

Reading Minor

The reading minor is intended for elementary, secondary, or K-12 teacher certification candidates who wish to have a recognized area 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;

Specific Requirements

Complete the reading core with a cumulative GPA of 3.000 or better and complete the reading electives with a cumulative GPA of 2.500 or better. RDG 301 or 425 are prerequisites for the other reading courses.

Core Courses	Titles	Credits
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 Content Areas	2
RDG 450	Diagnosis and Remediation of Reading Problems	3
ENG 351	Children's Literature	OR
ENG 412	Literature for Adolescents	2

TOTAL 13

Elective Courses

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	Teaching the Special Child OR	
ED	461	Atypical Students in the Secondary School	3
Electives chosen in consultation with the education adviser			8

TOTAL 19-22

Performance Assessment Activities

Since reading minors are generally teacher-licensure candidates, the activities listed above are required. In addition candidates must:

- complete the reading minor core with a GPA of 3.000 or better. Assessment of expected outcomes 1 through 6 are monitored by the reading director;
- complete the 21-hour requirement with electives listed on the advisement sheet. The overall GPA must be 2.500 or higher; and
- complete a questionnaire which is filed in the reading minor director's office. The questionnaires are used to plan course offerings, to document the progress of students seeking the minor, and for prospective employment.

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 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)

Sequential course to provide intensive consideration of essay development and to introduce procedures and techniques in preparing the referenced paper. Pre-requisite: 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
FRN	-	French
GEOG	-	Geography
GEOL	-	Geology
GER	-	German
HIST	-	History
HONOR	-	Honors
IS	-	Interdisciplinary Studies
IST	-	Industrial Science and Technology
INTL	-	International Studies
ITL	-	Italian
MACOM	-	Mass Communications
MATH	-	Mathematics
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
SOC	-	Sociology
SOCSC	-	Social Science
SPCOM	-	Speech Communication
SPN	-	Spanish
SW	-	Social Work
TH	-	Theatre
WS	-	Women's Studies

ACCOUNTING (ACCTG)**UNDERGRADUATE COURSES****ACCTG 200 Accounting Concepts and Practice 4(4-0)**

Introduction to accounting as the language of business. Managerial uses of accounting information, including cost-based, decision making, differential accounting, and responsibility accounting. Prerequisite: MATH 121 or permission of instructor for non-business majors. (F,S)

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. Prerequisite: ACCTG 202. Corequisite: ACCTG 301L (*)

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 201. Corequisite: ACCTG 301. (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 202. (*)

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 202. (*)

ACCTG 320L Managerial Accounting Lab 1(0-2)

Applications of managerial accounting theory, computer-based problems, cases, practice sets. Prerequisites: ACCTG 202 and 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 and senior standing, accounting majors. (*)

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 320L. (*)

ACCTG 440 Fund Accounting 3(3-0)

A study of advanced accounting topics especially as concerns not-for-profit entities with emphasis on governmental accounting. Prerequisite: ACCTG 302. (*)

ACCTG 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 in the community. Prerequisites: senior standing and permission of instructor. (*)

ACCTG 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. Prerequisite: senior standing in School of Business and completion of all core courses. (*)

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. (*)

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)

Crosscultural 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 103 Art History Survey III 3(3-0)

Development of style, iconography and function of art in non-western cultures. (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 206 20th Century Art 3(3-0)

An in-depth study of artists and art styles of the 20th century. Prerequisite: permission of instructor. (F,S)

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(0-6)

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 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 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(0-6)

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 prepress 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 405 Art History: Modern 3(3-0)

Development of style and iconography of 19th- and early 20th-century art in Europe and United States. Prerequisite: permission of instructor. (F,S)

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 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(0-6)

Emphasis on development of individual skills of perception and exploration of new techniques and materials. May be repeated twice. Pre-requisite: 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. (F)

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. (S)

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 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 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 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 aspect of the human body. Not for the majority of biology majors. Topics include physiologically important molecules and compounds, the cell, tissues, integument, skeleton, muscle, nervous system, and special senses. 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. Topics include the vascular system, respiration, digestion, endocrines, metabolism, excretion, fluid balance, and reproduction. 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 201, 202 and CHEM 211 and 211L or CHEM 301 and CHEM 301L. 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 201. (F)

BIOL 321 Comparative Vertebrate Anatomy 3(3-0)

Comparative study of developmental and functional anatomy of vertebrate animals. Prerequisite: BIOL 202 or permission of instructor. Corequisite: BIOL 321. (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)

Course Descriptions

BIOL 341 Vertebrate Physiology 3(3-0)

Basic general physiology and the functions of animal and human body systems. Prerequisites: BIOL 202, CHEM 211 and 211L or 301 and 301L. Corequisite: BIOL 341L. (CE,F)

BIOL 341L Vertebrate Physiology Lab 1(0-2)

Corequisite: BIOL 341. (CE,F)

BIOL 351 Genetics 3(3-0)

Mendelian, molecular, cell cycles and population genetics with laboratory using yeast as model. Prerequisites: BIOL 201 and 202 or permission of instructor. Corequisite: BIOL 351L. (CE,F,S)

BIOL 351L Genetics Lab 1(0-2)

Corequisite: BIOL 351. (CE,F,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 201 and 202 or permission of instructor. Corequisite: BIOL 353L. (CE,F)

BIOL 353L Ecology Field Studies 1(0-2)

Corequisite: BIOL 353. (CE,F)

BIOL 378 Laboratory in Teaching Biology 1(0-2)

Teaching experience under supervision 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. (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 201 and 202, 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 202 and 202L or BIOL 223 and 223L or BIOL 321 and 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. Prerequisite: 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. Prerequisite: 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. Corequisite: 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 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 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 microscopy 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 471 Career Planning IV 1(1-0)

Creating and securing graduate school and employment opportunities. (F,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 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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-vector diseases. Prerequisites: 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 accident prevention
 4. Milk and food sanitation
 5. Water and waste-water sanitation
 6. Housing and institutional environmental health
 7. Solid waste management
- (S/U grades) 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. Prerequisite: BIOL 201, 202, CHEM 301. 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 202, 202L, 223, 223L 321 and 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(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)

Course Descriptions

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 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 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-vector-borne diseases. Prerequisites: 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 220 Principles of Business Law 3(3-0)

Law as it relates to business, including contracts, sales, bailments, and personal property. (*)

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 260 Business Statistics I 3(3-0)

Statistical methods in business, including descriptive statistics, probability distributions, sampling, parameter estimation and hypothesis testing, correlation and simple linear regression, and chi square tests. Prerequisite: MATH 220. (*)

BUSAD 261 Business Statistics II 3(3-0)

More advanced statistical methods for business, including analysis of variance, multiple regression, time series analysis, nonparametric methods, sample survey methods, and basic decision analysis. Prerequisite: BUSAD 260. (*)

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 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 nonscience 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 including qualitative analysis. Corequisite: CHEM 122. (F,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)

Course Descriptions

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 and methods under the guidance and supervision of an instructor. May be repeated for a maximum of two credits. Prerequisite: Approval of instructor. (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 493 Seminar 1(1-0)

May be repeated once (S/U grades). 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, electrochemistry, atomic, and molecular spectroscopy. Prerequisite: CHEM 317 and 321, or permission of instructor. Corequisite: 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 spectrochemical analysis, electrochemical 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 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 205 (WS 205) La Chicana 3(3-0)

A social cultural and historical overview of the Chicana experience and contributions. (S)

Course Descriptions

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 Chicano: Social and Psychological Study 3(3-0)

Social and psychological forces faced in the Chicano community. (*)

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 325 Health in the Chicano Community 3(3-0)

Health care traditions and current health care systems in the barrio. (*)

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 3(3-0)

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 402 Civil Design Projects 3(0-6)

Practical, realistic project relating to civil engineering technology is selected for development, designed and reported. Prerequisite: senior CET or permission of instructor. (S)

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, groundwater 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 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 microcomputer 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. (F)

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. (S)

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 spreadsheets. This is a competency-based course. (F,S,SS)

CIS 102 Introduction to Basic Programming 4(3-2)

Introduction to computer languages, computer awareness and fundamental skills with use and expression of computer languages. Focus on interactive person-machine exchanges, a programming language (BASIC), and the operating system commands. (F,S)

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. (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 102 or prior programming experience. (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 203 Creating and Accessing Internet Resources 2(2-0)

Creating and accessing information on the Internet, e-mail, FTP, Gopher, and news groups. How to build HTML home pages on the World Wide Web. Prerequisite: CIS 101 or equivalent. (F, S)

CIS 215 Unix Operating System 2(1-2)

Explore UNIX features, covering command language, file system, mail, and editing. Shell language tools include pipes, filters and I/O redirection. Prerequisite: Any C programming course. 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 303 Visual Programming 3(3-0)

Programming using the visual development environment for Windows. Teaches development of Windows graphical interfaces. Windows program design and testing. Prerequisite: CIS 121. (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 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 higher or permission of instructor. (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 220 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 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 in the community. Prerequisites: senior standing and permission of instructor. (*)

ECON 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. (*)

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 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. (*)

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: admission to teacher education program or permission of instructor. (*)

ED 412 Teaching the Special Child 3(2.5-1.5)

Includes history, philosophy and legislation for special education, the nature and definitions of exceptionalities and child abuse; focuses on meeting the instructional and social needs of special children in elementary classrooms. Field experience required. Prerequisite: admission to teacher education program. (F,S)

ED 413 Teaching Social Studies 2(1.5-1.5)

Methods of teaching social studies in the elementary school. Part of elementary field experience block. Prerequisite: admission to 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: admission to 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 admission to 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: admission to 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: admission to 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 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: admission to teacher education program. (F,S,SS)

ED 447 Teaching English in Secondary Schools 3(2-2)

Familiarization with the Colorado Language Arts (English) 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 hours/semester field experience required) (F,S)

ED 448 Teaching Foreign Language (K-12) 3(2-2)

Familiarization with the Colorado Foreign Language 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,S)

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 460 Educational Media and Technology 3(2-3)

Preparation and use of audiovisual materials, equipment and use of computers in instruction. Field experience required. Prerequisite: admission to teacher education program. (F,S)

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: admission to teacher education program. (F,S)

ED 487 Student Teaching Elementary (1,5,8,15 VAR)

Elementary level. Application must be submitted on or before March 1 prior to the semester in which student teaching will commence (S/U grades). Prerequisite: approved application for student teaching. (F,S)

ED 488 Student Teaching Secondary (1,5,8,15 VAR)

Secondary level. Application must be submitted on or before March 1 prior to the semester in which student teaching will commence (S/U grades). Prerequisite: approved application for student teaching. (F,S)

ED 489 Student Teaching K-12 (1,5,8,15 VAR)

K-12 level. Available for art, music and physical education majors. Application must be submitted on or before March 1 prior to the semester in which student teaching will commence (S/U grades). 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 "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-identification 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)

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. (S)

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. (F)

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. (S)

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. (F)

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. (S)

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. (F)

EET 350 Electronic Devices and Control 4(3-2)

Semiconductor devices, transistor amplifiers, OP amps, OP amp applications, power amplifiers, digital electronics, digital control, PLCs, microprocessors, micro controllers, interfacing, control systems, motors. (NON-MAJORS). Prerequisite: EET 122 or 250. (F)

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. (S)

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,CE)

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. Fiber optic communications. Prerequisites: EET 351, MATH 232. (S)

EET 456 Design Projects 2(1-2)

Application of theory to practical design of technical projects. The student designs, builds, tests and writes a technical report for his or her project. Prerequisites: EET 393 and senior standing. (F)

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 COURSES (EN)**UNDERGRADUATE****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 4(3-2)

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. Prerequisites: EN 105, 107, CHEM 121 and 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 and Stochastic Processes 4(3-2)

Analysis of stochastic systems through analytical and experimental methods. Application of simulation emphasizing Monte-Carlo and discrete event modeling. Introduction to queuing theory and Markov chains. Prerequisites: EN 105, 343, MATH 256 and 356. (S)

EN 421 Structural Analysis 3(3-0)

Analysis of 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. Prerequisites: EN105 and MATH 356. (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 3(3-0)

Analysis and design of systems containing elements of uncertainty in demand and performance capability. Time varying measures and approximate are emphasized. Prerequisites: MATH 256 and EN 356. (*)

EN 471 Operations Research 3(3-0)

Techniques for analysis and solution of problems in industrial and management systems. Linear programming, duality theory, sensitivity analysis, and network analysis techniques. Prerequisite: MATH 207 or permission of instructor. (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. Prerequisites: MATH 207 or EN 471 or permission of instructor. (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 and Stochastic Processes 4(3-2)

Analysis of stochastic systems through analytical and experimental methods. Application of simulation emphasizing Monte-Carlo and discrete event modeling. Introduction to Queuing theory and Markov chains. Additional work required of graduate students. Prerequisites: EN 105, 343, MATH 256 and 356. (S)

EN 530 Project Planning and Control 3(3-0)

Engineering project management including project selection, organization, planning, budgeting, scheduling and resource allocation, tracking and control, and evaluation. Application of network analysis techniques such as PERT and CPM. 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 3(3-0)

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 207, or permission of instructor. (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 4(2-4)**

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)

ET 356 Project Seminar 1(1-0)

Introduction to the senior project course in which the student formulates the project proposal and makes both a written and oral presentation of the proposal. Prerequisite: ET 300. (F)

ET 456 Senior Project 3(1-4)

Practical, realistic projects relating to ET disciplines are selected for design, analysis, and execution. Students build prototypes/models, prepare reports and make oral presentations. Prerequisite: ET 356. (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. (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 106 (ANTHR 106) Language, Thought and Culture 3(3-0)

Cross-cultural introduction to language processes in human society. (F*)

ENG 121 The Writer's Response: Evaluating Literature 3(3-0)

Explication of literary texts. Use of evidence in forming evaluations and conclusions about novels, poems and short stories. Introduction to modern literary criticism. Prerequisite: ENG 101 or permission of instructor. (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 203 Composition III 3(3-0)

Intermediate course in expository writings; intensive practice in various academic and practical forms, including essays, articles, and reports. (F)

ENG 215 Poetry 3(3-0)

Poetry as a literary genre, survey of major periods and writers of poetry in English. (F)

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 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 121 or 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 325 Nature Writing in the West 3(3-0)

Studies in writings about the western landscape an environment by American nature writers; intensive practice in nature writing. (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 or 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 Drama of Shakespeare 3(3-0)

Shakespeare's dramaturgy and developments of Shakespearean criticism, major histories and tragedies. (*)

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 (MACOM 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 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. (F)

EXHP 104L Personal Fitness 1(0-2) (*)

EXHP 107L Scuba Diving 1(0-2) (*)

EXHP 109L Volleyball 1(0-2) (F,S)

EXHP 110L Weight Training 1(0-2) (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) (*)

EXHP 114L Basic Mountaineering Techniques 1(0-2) (*)

EXHP 115L Skiing 1(0-2) (*)

EXHP 116L Camping 1(0-2) (F)

EXHP 117L Backpacking 1(0-2) (F)

EXHP 118L Jogging 1(0-2) (*)

EXHP.120L Aerobics 1(0-2) (*)

EXHP 143L Folk, Square, and Ballroom Dance 1(0-2)

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) (*)

EXHP 175L Racquetball 1(0-2) (*)

EXHP 176L Life Guard Training 1(0-2)

Prerequisite: swimming pre-test. (*)

EXHP 187L Intercollegiate Sports I 2(0-4)

EXHP 188L Elementary Physical Conditioning 2(0-4) (F,S)

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. Prerequisite: EXHP 162. (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 3(3-0)

Knowledge and skills in the latest approved first-aid and cardiopulmonary resuscitation procedures. Red Cross certification (F,S,SS)

EXHP 233 History and Principles of Physical Education and Recreation 3(3-0)

Study of the history, philosophy and contemporary problems and trends 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 249 Methods of Ropes Course Leadership 2(2-0)
Basic Skills and techniques of instructing ropes courses. Includes technical skills and group facilitation. (F,S)

EXHP 260 Care and Prevention of Athletic Injuries 2(2-0)
Procedures utilized in prevention, care and treatment of athletic injuries. Prerequisites: EXHP 232, BIOL 223, 223L, 224, 224L. (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)

EXHP 288 Health Promotion Practicum 3(1-4)
Observation and limited participation as a paraprofessional in local health management programs. Prerequisite: EXHP 101. (F)

EXHP 288L Advanced Physical Conditioning 2(0-4)
(F,S)

EXHP 289 Practicum in Athletic Training I 1(0-2)
Introduction to the clinical application of the NATA competency check-list. Emergency medicine; basic taping/wrapping; protective/supportive padding and splinting. Prerequisite: EXHP 260. (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 121. (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, 224, 224L, CHEM 111, MATH 121

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: EXHP344. Prerequisites: BIOL 223, 223L, 224, 224L, CHEM 111, 111L, MATH 121. (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 242. (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 3(3-0)
Basic skills and techniques of tennis, racquetball, badminton and golf; emphasis on teaching procedures in these activities. (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 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, 224, 224L. (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 289, BIOL 223, 223L, 224, 224L. (S)

EXHP 389 Practicum in Athletic Training II 1(0-2)
Specialty taping/wrapping; athletic/orthopedic equipment fitting; therapeutic and modality application. Prerequisite: EXHP 360. (F)

EXHP 389L Student Assistant 1(0-2)
Prerequisite: EXHP 289L. (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 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. Prerequisite: EXHP 343, 344. (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 222, EXHP 444. (F)

EXHP 450 Evaluation of Athletic Injuries 3(3-0)

In depth study of assessment techniques and protocols applicable to specific athletic injuries. Prerequisites: KIN 254 and EXHP 442.

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, 224, 224L. (S)

EXHP 470 Methods of Coaching and Officiating 3(3-0)

Skills and methods of coaching and officiating sports. Corequisite: senior standing. (F)

EXHP 471 Coaching and Officiating Football 2(2-0)

Techniques and strategy of coaching and officiating football. Prerequisite: junior standing. (*)

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. Prerequisites: EXHP 344, 344L, 364 and 470. (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)

Course examines Colorado Physical Education Content Standards. Standards based lessons/units planning, presentation strategies, and assessment will be discussed, emphasized and demonstrated. Field experience required. Prerequisite: acceptance into teacher education department. (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. Prerequisite: junior standing. (S)

EXHP 484 Coaching and Officiating Soccer 2(2-0)

Techniques and strategies of coaching and officiating soccer. Prerequisite: junior standing. (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 382, EXHP 444. (F)

EXHP 487 Health Promotion Program Planning/Evaluation 4(3-2)

Focus on planning, implementing, and evaluating work-site health promotion programs. Prerequisite: EXHP 482. (S)

EXHP 489 Practicum in Athletic Training III 1(0-2)

Applications of injury recognition/evaluation techniques; advanced taping, wrapping/padding. Prerequisite: EXHP 450. (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. (*)

FINANCE (FIN)

UNDERGRADUATE COURSES

FIN 330 Principles of Finance 3(3-0)

Principles of finance involved in problems confronting business organizations. Prerequisites: ACCTG 200, 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 260. (*)

FIN 333 Investment Analysis 3(3-0)

Analysis and forecasting of security markets, industry and company studies, 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 337 Insurance and Risk Management 3(3-0)

Principles of insurance with emphasis on the operation and contributions of the insurance industry. Prerequisite: FIN 330. (*)

FIN 430 Financial Institutions and Markets 3(3-0)

Structure, operations and portfolio compositions of financial intermediaries, including commercial banks, savings and loans, life insurance companies, pension fund management, mortgage banking and credit agencies. Prerequisite: FIN 330. (*)

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 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 in the community. Prerequisites: senior standing and permission of instructor. (*)

FIN 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. (*)

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 531 International Financial Management 3(3-0)

Financial theory and practice as applied to the financial management of multinational corporations. Prerequisite: 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 instructor; 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)

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. Corequisite: 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 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 U.S. Emergence: Building a Nation 3(3-0)

The trends, events and people involved in the shaping of the United States and its national character. (*)

HIST 305 Development of a World Power (1850-1920) 3(3-0)

The growth of U.S. politically, economically and socio-culturally, into a major power. (*)

HIST 306 20th-Century America 3(3-0)

United States from the New Deal 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 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 (CS 493) Seminar 3(3-0)

Seminar devoted to special topics and issues in history; emphasis on research paper. Prerequisite: advanced standing with a major or minor in history, 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 110 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 120 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 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 291 Special Topics (1-3 VAR) (*)

HONOR 410 Senior Honors 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. (*)

HONOR 490 Special Projects 2(2-0)

Prerequisite: three hours of previous honors work. (*)

HONOR 491 Special Topics (1-3 VAR) (*)**INDUSTRIAL SCIENCE TECHNOLOGY (IST)****UNDERGRADUATE COURSES****IST 101 Woods Technology 3(1-4)**

Safe and efficient selection, utilization and maintenance of equipment to process forest products material used in construction and manufacturing. (F)

IST 102 Wood Fabrication Technology 3(1-4)

Construction of cabinets, millwork, and furniture: design, construction details, production methods. Structure characteristics and physical properties of wood; strength values, grading and moisture relationships. Prerequisite: ACED. (F/O)

IST 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)

IST 105 Industrial and Building Materials 3(2-2)

Properties and application of popular and innovative construction materials, including ceramics, forest product materials, metals, sealants, insulations, coatings and others. (*)

IST 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)

IST 203 Wood Turning 3(0-6)

Basic skills in wood turning and the use of the lathe to supplement bench and machine woodworking. (F)

IST 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)

IST 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)

IST 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)

IST 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)

IST 302 Cabinet and Accessory Technology 3 (0-6)

Modern techniques in the manufacturing of prefabricated cabinets and accessories. Theory application through the implementation of new tooling available in the cabinet industry. Prerequisite: IST 102. (F/E)

IST 304 Transportation Technology 3(1-4)

A system analysis of transportation technologies. Study of transportation systems resources, processes and implementations. Participants develop a degree of technological literacy pertinent to transportation systems. Prerequisites: IST 103 and APSM 225. (S/E)

IST 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)

IST 307 Industrial Manufacturing I 3(1-4)

Industrial processes and techniques. Focus on casting, material removal and plastics. Includes manufacturing systems and cost estimating. Prerequisite IST 105. (F)

IST 308 Industrial Manufacturing II 3(1-4)

Industrial processes and techniques. Focus on adhesive and cohesive joining, hot and cold forming and heat treatment. Includes operations planning and process and quality control. Prerequisite: IST 307. (S)

IST 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)

IST 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)

IST 350 Facilities Management Administration 3(3-0)

Planning, organizing, staffing, budgeting and administering a facilities management organization and delivering facilities services. (F)

IST 351 Facilities Management Operations 3(3-0)

Planning, programming, budgeting and managing facilities design, construction, renovation and sustainment operations. Prerequisite: IST 350. (S)

IST 377 Curriculum Development and Evaluation in Technology Studies 3(3-0)

Organization of units of instruction, lesson plans, instruction sheets, evaluative procedures and tests. Prerequisite: IST 103 (F/O)

IST 380 Communications Systems Technology 3(1-4)

Study of technical means by which humans extend their capabilities through the invention and use of communication systems, both electronic and graphic. Prerequisites: MET 111. (S/E)

IST 401 Production Systems 3(1-4)

Exercise in the research and development, and production of a product. Industrial organization and production methods. Prerequisite: permission of instructor. (S/O)

IST 402 Methods/Techniques of Teaching Technology Studies 3(3-0)

Methods and techniques of teaching industrial science technology courses including laboratory management, professional development, certification, accreditation, public relations, and school policies. Includes field experience. Prerequisite: IST 103 (F/E)

IST 430 Industrial Safety 3(3-0)

Laboratory organizational patterns, administrative duties of the teacher, and safety regulations. (S)

IST 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: IST 350 and 351. (S)

IST 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/IST 351. (S)

IST 490 Special Projects (1-5 VAR)

Prerequisite: junior or senior standing; permission of instructor. (F,S,SS)

IST 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)

IST 493 Seminar (1-5 VAR)

Individual and small-group activities. Individual experimentation and expertise development in facilities management and/or technology studies. (F)

IST 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)

IST 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

IST 545 Career Education 2(2-0)

Design, implementation and conducting career education programs. Selecting and preparing teaching materials for career education programs. (*)

IST 555 Trends and Problems in Technology Studies 3(3-0)

Practical methods and techniques of organizing curriculum materials and controlling a typical technology education program. May be repeated. Prerequisite: graduate standing. (*)

IST 557 Organization and Administration in Technology Studies 3(3-0)

Shop organizational patterns, administrative duties of the teacher, and new trends in selection and arrangement of equipment and facilities. Prerequisite: graduate standing. (*)

IST 580 Problems in Technology Studies 3(3-0)

In-depth study by one or more students who wish to enrich their teaching ability in a specific area of technology education. May be repeated. Prerequisites graduate standing and permission of instructor. (*)

IST 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. (*)

IST 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. (*)

IST 592 Research (1-5 VAR) (*)

IST 593 Seminar (1-5 VAR)

Individual and small-group activities. Current topics, issues, resources, and practices. May be repeated. (*)

IST 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. (*)

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 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 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 Become 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.

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)

MGMT 301 Creating and Leading Organizations 3(3-0)

Organizing and managing in rapidly changing internal and external environments. Teamwork, individual and group behavior, motivation, work design, communication, decision-making, leadership, and organizational culture. Prerequisite: MGMT 201, junior standing. (F,S)

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 320 Organizational Behavior 3(3-0)

Behavior of individuals and small groups in organizational settings. Managerial style, social system analysis, motivation and communication. Prerequisite: MGMT 310 (*)

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 350 Health Industry Management 3(3-0)

Survey of the health care industry, including health delivery, insurance, and government regulations and influence. Prerequisite: MGMT 201. (*)

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 310 (*)

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 380 Hospitality Industry Management 3(3-0)

Survey of the hospitality industry including tourism, the management of hotels, resorts, and restaurants. History and trends in the industry. Prerequisite: MGMT 201. (*)

MGMT 382 Principles of Domestic and International Tourism 3(3-0)

Effect and relationship of domestic and international tourism on food-service and lodging industry; economic and social infrastructure; influence of transportation, trade associations, and government programs. Prerequisite: MGMT 201. (*)

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 310 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 428 Management of Innovation and Change 3(3-0)

Modern business methods to stimulate innovation in product design and organizational effectiveness, and to overcome resistance to change. Prerequisite: MGMT 301. (F,S)

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 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 in the community. Prerequisites: senior standing and permission of instructor. (*)

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 482 The Leadership Experience 2(1-2)

A leadership experience in an organization, combined with classroom discussion and comparison of the experience with leadership theory and practice. 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: permission 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, understanding 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 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 260. (*)

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 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 in the community. Prerequisite: senior standing and permission of instructor. (*)

MKTG 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 School of Business and completion of all core courses. (*)

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 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 (MACOM)

UNDERGRADUATE COURSES

MACOM 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)

MACOM 110 Career Orientation 1(1-0)
Survey of career opportunities in the communication industry with emphasis on the mass media and related agencies. Required for majors and minors in mass communications. (F,S)

MACOM 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. Prerequisites: ENG 101 and 102. (F,S, SS)

MACOM 202 Feature Writing 3(3-0)
Reporting campus events via interpretive articles, news features, straight features, seasonal stories and in-depth articles. Prerequisite: MACOM 201. (F,S)

MACOM 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.

MACOM 216 Advertising 3(3-0)
Principles of advertising on local and national levels for newspapers, magazines, radio and television. (F,S)

MACOM 222 Broadcast News Writing 3(3-0)
Preparation of copy for radio/television news reports, interviews and commentary. (F,S)

MACOM 223 Radio-TV 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: MACOM 201. (F,S)

MACOM 224 (SPCOM 224) Broadcast Announcing 3(3-0)
Study and application of the principles of oral communication to radio and television announcing. (F,S)

MACOM 226 Introduction to Television Production 4(2-4)
Concepts, skills and technical facilities involved in production of television programs. Emphasis on the understanding of the technical equipment used in program broadcasting. Prerequisite: MACOM 101. (F,S) Fee required.

MACOM 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. (*)

MACOM 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)

MACOM 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. Prerequisites: MACOM 201 and 202. (*)

MACOM 260 History and Regulation of Telecommunications 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: MACOM 101. (F,S)

MACOM 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)

MACOM 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)

MACOM 301 Editorial Writing 3(3-0)

Study of editorial page management and policy, with emphasis on preparation of editorials, columns and critical reviews. Prerequisites: MACOM 201 and 202. (*)

MACOM 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: MACOM 216 or permission of instructor. (S)

MACOM 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: MACOM 201 and 202. (F,E)

MACOM 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: MACOM 211 or permission of instructor. Fee required. (S)

MACOM 311 Copy Editing and Makeup 3(3-0)

News evaluation, copyreading, rewriting, headline writing, page makeup and similar duties of the newspaper copy editor. Prerequisites: MACOM 201 and 202. (F)

MACOM 316 Advertising Campaigns 3(3-0)

Practical application of planning and development of advertising campaigns for print and broadcast media; emphasis on the use of creative strategy. Prerequisites: MACOM 216 and 302, or permission of instructor. (F)

MACOM 317 Advertising Strategy 3(3-0)

Seminar emphasizing tactics and strategies of advertising planning, utilizing media techniques, marketing posture and creative media buying. Prerequisites: MACOM 216 and 316. (S)

MACOM 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: MACOM 216. (F)

MACOM 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: MACOM 222, 224 and 226. (*)

MACOM 326 Advanced Television Production 4(2-4)

Single-camera location production and video post-production: emphasis on location videography, location audio, location lighting, videotape editing and audio post-production. Prerequisite: MACOM 226. (S) Fee required.

MACOM 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 MACOM or Women's Studies. (*)

MACOM 336 Intro to Interactive Media 3(3-0)

An overview of interactive media systems and the computer applications used to create interactive media content. Prerequisite: MACOM 101, CIS 101 or 110. (F)

MACOM 346 Non-Linear Editing 3(2-2)

Concepts, skills, and application of non-linear video editing technology and digital video post-production with an emphasis on broadcast industry standard techniques. Prerequisite: MACOM 326. (S)

MACOM 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)

MACOM 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)

MACOM 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)

MACOM 402 Photojournalism 4(3-2)

Practical course in pictorial reporting; emphasis on spot news feature, picture stories and photographic essays. Prerequisite: MACOM 401 (*)

MACOM 411 Journalism Law and Ethics 5(5-0)

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)

MACOM 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. (*)

MACOM 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: MACOM 201, 202 and 280. (F)

MACOM 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, newsletters, speeches, and proclamations. Prerequisite: MACOM 201 and MACOM 280. (S)

MACOM 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)

MACOM 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: MACOM 326. Fee required. (F)

MACOM 433 Public Relations Campaigns 3(3-0)

Student produced independent public relations plans for non-profit, private sector, and government organizations. Emphasis on conceptual and practical knowledge related to all aspects of the public relations process. Prerequisites: MACOM 311 and 422. (S)

MACOM 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: MACOM 201 and 202. (*)

MACOM 445 Reporting Public Affairs 5(4-3)

Instruction and practice in reporting public affairs, including crime and the courts, and news originating in city and county governments, state legislature, and school boards. Interpretive and investigative reporting skills. Attendance at public meetings required. Prerequisites: MACOM 201 and 202. (S,O)

MACOM 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)

MACOM 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)

MACOM 491 Special Topics (1-3 VAR)

Prerequisite: junior or senior standing, or permission of instructor. (F,S)

MACOM 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)

MACOM 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)

MACOM 495 Independent Study 2(0-2)

Prerequisite: junior or senior standing, or permission of instructor. (F,S)

GRADUATE COURSE

MACOM 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 3(3-0)

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 connections between mathematics and society. Topics chosen from management science, social decision making, statistics, probability, growth models and geometry. 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 Precalculus 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. Prerequisite: 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. Prerequisite: 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 chi-square 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. (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. Prerequisite: 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. Prerequisite: MATH 121 (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. Prerequisite: 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 3(3-0)

A rigorous development of vector spaces and linear transformations. Prerequisites: MATH 207 and 224 or equivalent. (F)

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. (S)

MATH 325 Intermediate Calculus 3(3-0)

Continuation of MATH 224. Vector valued functions and multivariable calculus. Prerequisites: MATH 207 and 224. (F)

MATH 327 Introduction to Algebraic Systems 3(3-0)

Introduction to groups, rings, and fields and their elementary properties. Prerequisite: MATH 320 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-homogeneous 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)

Sets, numeration systems, whole numbers, algorithms, number theory, integers and intuitive geometry. Prerequisite: C or better in any 100 level math course. Recommend MATH 121. (F,S)

MATH 361 Elementary Concepts of Mathematics II 3(3-0)

Metric geometry, rational numbers, real numbers, logic, mathematical systems, metric system, probability and statistics. Prerequisite: MATH 360. (F,S)

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 3(3-0)

An introductory course in real analysis providing a rigorous development of the concepts of elementary calculus. Prerequisites: MATH 320 and 325. (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. Prerequisite: MATH 320. (F)

MATH 477 Materials and Techniques of Teaching Secondary School Mathematics 4(3-2)

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)

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 subsystems 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 chi-square 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. (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 geometric constructions, orthographic projections, sectioning and dimensioning. 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 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 an individual mechanical engineering technology project. 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 Introduction to Leadership 1 (1-0)

An introduction to the U.S. Army that includes studies in leadership, branches, organization, customs and traditions. Includes practical application during leadership labs and field training exercises. Additional three hours of lab arranged. (F,S)

MS 102 Fundamentals of Leadership 1 (1-0)

Leadership development with emphasis on competencies, styles and leader-subordinate relationships. Requirements to become an effective leader, counseling and evaluation. Includes practical application during labs and field training. Additional three hours of lab arranged. (F,S)

MS 201 Leadership and Counseling 1 (1-0)

Provides an integrated understanding on leadership, counseling and motivation of subordinates. Includes practical application during leadership labs and field training exercises. Additional three hours of lab arranged. Prerequisite: MS 101 and MS 102. (F,S)

MS 202 Map Reading and Land Navigation 1 (1-0)

An introduction to map reading and navigation skills. Basic skills required to read a topographic map and navigate using a lensatic compass. Includes practical application during labs and field training exercises. Additional three hours of lab arranged. Prerequisite: MS 101 and MS 102. (F,S)

MS 301 Leadership and Management Development 3 (3-0)

Technique and practice in military leadership at the small unit level and basic military management skills. Includes practical application during labs and field training exercises. Additional three hours of lab arranged. Prerequisite: MS 201 and MS 202. (F,S)

MS 302 Advanced Leadership and Instructional Techniques 3 (3-0)

The fundamentals of leadership with emphasis on small unit tactics, land navigation and common task training. Includes practical application during labs and field training exercises. Additional three hours of lab arranged. Prerequisite: MS 201 and MS 202. (F,S)

MS 401 Military Staff Functions 3 (2-2)

Studies U.S. Army staff organizations, military decision-making process, officer-enlisted relationships and Army professional development systems. Includes leadership labs, physical training, and field training exercises. Additional three hours of lab arranged. Prerequisite: MS 301 and MS 302. (F,S)

MS 402 Leadership, Military Law and Army Systems 3 (2-2)

Study of military law, training, ethics, military operations, financial management and military personnel/supply/maintenance systems. Includes leadership labs, physical training and field training exercises. Additional three hours of lab arranged. Prerequisite: MS 301 and MS 302. (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 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 backgrounds 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. (*)

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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. Co-requisite: 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. Co-requisite: 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 Improvisation 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 I 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 118, 201, 201L, 202, 202L. (*)

MUS 322 Music History II 3(3-0)

A comprehensive survey of music history and forms from the Classic Era through the present. Prerequisites: MUS 118, 201, 201L, 202, 202L. (*)

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. (*)

Course Descriptions

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 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 health 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 270 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, 1121/112L. (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 which 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 Licence, 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. Corequisite: 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 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 which 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(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 which 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 which 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 intermediate application of the nursing process in patient care settings with clients of all age groups 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 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 Schrodinger 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. 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 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 250 Scope and Methods in Political Science 3(3-0)
Introduction to the discipline of political science and its subfields as well as the basic methods and tools of research in political science. (*)

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. (*)

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 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 psychotherapy. (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. (S)

PSYCH 151 Introduction to Human Development 3(3-0)
Survey of human development through life span. A multidisciplinary 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. Co-requisite: 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, Childhood and Preadolescence 3(3-0)
Physical, social, cognitive and emotional growth of the individual from conception through preadolescence. Topics include prenatal development, language development, attachment, and sexual development. Prerequisite: PSYCH 100. (F,S)

PSYCH 252 Adolescence, Adulthood and Aging 3(3-0)
Physical, social, cognitive and emotional growth of the individual from adolescence through old age. Topics include identity, intimacy, relationships, intellectual functioning, and issues of aging. Prerequisite: PSYCH 100. (F,S)

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. Co-requisite: 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. (S)

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. (S)

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. (F)

PSYCH 334L Perception Lab 1(0-2)
Corequisite: PSYCH 334. (S)

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. (S)

PSYCH 335L Motivation Lab 1(0-2)
Corequisite: PSYCH 335. (S)

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. (S)

PSYCH 336L Learning Lab 1(0-2)
Corequisite: PSYCH 336. (S)

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 337L Memory and Cognition Lab 1(0-2)
Corequisite: PSYCH 337. (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. (F)

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. (F,S)

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. (F)

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. (S)

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. (F)

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. (S)

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. (F)

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 childhood. Graduate students complete an independent project and consider treatment and management techniques. Prerequisites: graduate standing, permission of instructor and PSYCH 362 or equivalent. (*)

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 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, handwriting, 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 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 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. (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 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 or consent. (*)

REC 340 Recreation Program Planning 3(3-0)

Rationale supporting and methods of conducting recreation programs in a wide variety of public, private, voluntary and commercial recreation agencies. (S)

REC 350 Leadership and Supervision in Recreation 3(3-0)

Leadership and supervisory functions in professional recreation service. Addresses program leadership techniques and styles, leadership theory, personnel supervision, and group dynamics. Prerequisite: permission of instructor. (S)

REC 360 Outdoor Education 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: permission of instructor. (S)

REC 380 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 370 or consent of instructor. (*)

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 480 Recreation for Special Populations 3(3-0)

Community and clinical recreation services for the mentally retarded, law offenders, psychologically impaired, sensory impaired, physically disabled, disadvantaged or aging. Prerequisite: permission of instructor. (F)

REC 481 Outdoor Recreation Resources 3(3-0)

Examination of the outdoor recreation experience, the organization of resource-based recreation management and key outdoor recreation policy issues. Prerequisite: permission of instructor. (F)

REC 482 Recreation Management 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: permission of instructor. (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 491 Special Topics (1-5 VAR) (*)

REC 493 Semjnar 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 340. (S)

REC 495 Independent Study (1-5 VAR) (*)

REC 498 Internship 9(0-9)

Supervised experience with approved professionals in select recreation settings. Prerequisite: senior standing, completion of all other degree requirements, 2.5000 GPA in the major, and departmental chair approval. (*)

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. (*)

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 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 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 (MACOM 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 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(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 of 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 420 Criminological Theory 3(3-0)

Examination of major theories of crime and their policy implications; focus on sociohistorical 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. Pre-requisite: SOC 101 and/or SOC/PSYCH 352 (*)

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, resonance, 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 205 La Chicana (CS 205) 3(3-0)

A social, cultural, and historical overview of the Chicana experience and contributions. (S)

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 (MACOM 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 330 (MACOM 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 MACOM 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 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 1999-2000

STATE BOARD OF AGRICULTURE

Bliss, Stewart	Denver
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Hock, Delwin D.	Denver
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Mabry, G.C. "Chuck"	Ft. Collins
Putnam, Anne	Durango
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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

Bliss, John vice chancellor for Administrative Affairs, CSUS

Clark, David G., associate vice chancellor for Academic Affairs, CSUS

ADMINISTRATIVE OFFICES

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Perchan, Stanley, director, Athletics

Roudebush, David C., chief business officer for the Alliance

Trujillo-Sánchez, Gloria, director, Personnel/ Affirmative Action

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Bales, Joyce Ford, dean, Center for Teaching, Learning and Research

Carrasco, Hector, dean, College of Applied Science and Engineering Technology

Drabier, Renée, director, Technology Services

Fultz, Miriam L., director, Assessment/Instructional Research

Maldonado, Carlos, director, Center for International Programs

Marqueson, Victoria, director, Center for Teaching, Learning and Research

Moore, Beverly, dean, Library Services

Seilheimer, Jack A., dean, College of Science and Mathematics

Stubenrouch, Roger E., director, Continuing Education

Ward, Bart H., dean, Hasan School of Business

Withnell, LeeAnn, director, Community Compact

Wright, Edward, dean, College of Humanities and Social Sciences

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Martinez, Rubén, associate provost

Aichele, Ron, director, Honors Program

Anastassiou, Pamela, registrar

Brewer, Jack, director, Career Center

Kangas, Christie, director, Admissions

King, Karel, director, Southern Colorado Educational Opportunity Center

Medina, Mike, director, Upward Bound

Morken, Carol, director, Academic Advising Center

Perez, Cynthia, project director, Student Support Services

Stoker, Cheryl, director, Learning Assistance Center

OFFICE OF THE VICE PRESIDENT FOR FINANCE AND PLANNING

Bronn, Stephen D., vice president for Finance and Planning

Alley, Lorna, assistant director of budgets

Borge, Valerie, controller

Ortega, Don, assistant controller, director, Student Financial Services

Zimmerman, Bruce, director, Auxiliary Services

OFFICE OF THE ASSOCIATE VICE PRESIDENT/ FACILITIES

Cumbee, Richard A., associate vice president, Facilities

Elsom, Donna, director, Safety and Environmental Health

Meckley, Priscilla, director, facilities planning

Stastny, Everett E., director, Purchasing

OFFICE OF UNIVERSITY RELATIONS

Freeman, Terry, director, Communication Services

King, June, (1975) associate director, Pueblo Symphony and director, Colorado Music Fest

Sullivan, Wynona, station manager, KTSC-TV

Ward, William T. III, director, Development and Alumni Relations

ADMINISTRATIVE FACULTY

Arnold-Meadows, Patricia J. (1999) dean of the Pueblo School for Arts and Sciences; BA, Tabor College; MA, University of Colorado; Ph.D., University of Colorado

Bales, Joyce Ford, (1996) dean of Center for Teaching, Learning and Research; BS, University of Tennessee; MA, East Tennessee University; Ed.D., University of Tennessee

Bronn, Stephen D., (1971) professor of mathematics, and Vice President for Finance and Planning; BS, University of Nebraska; MSIA, Purdue University; MS, Ph.D., Northwestern University

Carrasco, Hector R., (1993) dean of Applied Science and Engineering Technology and professor of engineering; BSME, MSME, University of Texas at El Paso; Ph.D., Texas A&M University

Guerrero, Tito, III, (1997) president, BS, Texas A&M; M.Ed., University of North Texas; Ed.D., Harvard University

Marquesen, Victoria, (1999) director, Center for Teaching, Learning & Research; BA, Colorado College; MA, University of Kansas; Ph.D., University of Kansas

Martinez, Rubén, (1997) associate provost, professor of sociology and Chicano studies; BS, University of Southern Colorado; MA, Arizona State University, Tempe; Ph.D., University of California at Riverside.

Moore, Beverly A., (1970) professor of library services, and dean, Library Services; AA, Hutchinson Junior College; BA, University of Northern Colorado; MA, University of Denver

Seilheimer, Jack A., (1963) professor of biology, and dean, College of Science and Mathematics; BS, Western Michigan University; Ph.D., University of Kentucky, Louisville

Wright, Edward, (1991) dean, College of Humanities and Social Sciences; associate professor of political science; BS, MA, University of Southern Mississippi; Ph.D., Georgetown University

Ward, Bart H., (1996) professor of accounting, and dean, Hasan School of Business; BBA and MA, University of Oklahoma; Ph.D., Northwestern University

Wong, Leslie, (1996) professor of psychology, and provost; BA, Gonzaga University; MA, Eastern Washington University, Ph.D., Washington State University

PROFESSIONAL STAFF

Acosta, Katherine (1995) project coordinator, Upward Bound

Ahlers, Shawn L. (1997) manager of technology support, 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) registrar; BA, Pittsburg State University; MA, University of Kansas

Blowers, Marsha E. (1996) head softball coach; Athletics; BA, University of Texas, Arlington; MS, Sam Houston State University

Borge, Valerie (1994) controller, Accounting Office; BS, MS, CPA, Colorado State University

Borland, Barbara Administrator, Sociology Program, Continuing Education

Brewer, Jack (1997) director, Career Center; BS, MS, Indiana State University

Brito, Mary (1996) coordinator/adviser, Lamar EOC Office, Southern Colorado Educational Opportunity Center; AS, Lamar Community College; BA, MS, Regis University

Carpio, Eric (1996) transfer coordinator, Admissions Office; BS, Colorado State University

Cisneros, Anna (1993) coordinator, Pueblo EOC Office, Southern Colorado Educational Opportunity Center; BS, University of Southern Colorado; MA, Adams State College

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; BS, Berea College

Cumbee, Richard (1990) associate vice president, Facilities; BA, The College of William and Mary

Dehn, Ronald E. (1970) associate director, Technology Services; BS, University of Southern Colorado

DiPrince, Linda S. (1970) assistant director, Student Financial Services; BS, University of Southern Colorado

Drabier, Renee (1998) director, 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

Elsom, Donna (1990) safety and environmental health officer, Business Services; BS, University of Southern Colorado

Engel-Aguilera, Tami (1995) program coordinator, Development and Alumni Relations; BS, Arizona State University

Fitzgerald, Lynn (1997) assistant women's baseball coach, Athletics; BS, University of Wisconsin; MS, North Eastern State University, Oklahoma

Folda, Joseph (1987) head coach, men's basketball, Athletics; BS, University of Northern Colorado; M.Ed., Eastern Washington University

Freeman, Terry (1990) director, Communications Services; BS, University of Southern Colorado

Fritz, Maureen K. (1996) assistant softball coach, Athletics; BA, University of Texas, Arlington; MA, Sam Houston State University

Fultz, Miriam L. (1998) director, Assessment/ Instructional Research; BA, University of California, Irvine; MA, Ph.D., California School of Professional Psychology - San Diego

Gjerde, Michelle B. (1997) employment services specialist, Career Center; BA, University of Southern Colorado

Gonzales, Walter J. (1997) learning disabilities specialist, Learning Center; University of Southern Colorado; MA, University of Colorado at Colorado Springs

Gradisar, Tina (1989) membership manager, KTSC-TV; BS, University of Southern Colorado

Greene, Samuel T. (1996) TV producer, KTSC-TV; AA, Black Hawk College; BS, Southern Illinois University at Carbondale

Greer, James (1993) program coordinator, Altus Air Force Base, OK, Continuing Education; BA, Southern Illinois University; MA, Webster University

Gutierrez, Gloria (1976) executive assistant to the president, President's Office, CPS; BS, University of Southern Colorado

Hargrove, Greg (1996) director, programming and promotions, KTSC-TV

Hatton-Montoya, Sharon (1994) writing center coordinator, Learning Center/English Department; BA, University of Southern Colorado

Hawkins, Sharon (1993) director, Counseling Center; BA, Marillac College; MSW, University of Denver; LCSW

Herrera, Veronica (1995) coordinator, Colorado Springs EOC, Southern Colorado Educational Opportunity Center; BSW, University of Southern Colorado

James, Paul (1994) athletic trainer, Athletics, BS, University of Utah

Jensen, Jennifer (1992) associate director, admissions; BS, University of Southern Colorado

Jones, Scott A. (1984) remote manager, KTSC-TV; BS, University of Southern Colorado

Kangas, Christie (1996) director, Admissions; BA, College of St. Scholastica; MA, University of Northern Iowa

Kelly, Todd (1991) sports information director, Athletics; BS, University of Southern Colorado

Kennedy, Robert F. (1995) admissions counselor, Office of Admissions; BA, Creighton University

Kidd, Frederick L. (1992) Computer Information Systems Manager, Student Financial Services; AA, AAS, BS, University of Southern Colorado; MA, New Mexico Highlands University

King, Karel (1989) director, Southern Colorado Educational Opportunity Center; BS, MS, Bowling Green State University

King, June (1975) director, Colorado Music Fest, associate director of Pueblo Symphony; BS, Southern Colorado State College

Krigel, Belinda (1988) manager, UNIX Systems, Technology Services; BS, MS, Arkansas State University

Laino, Heidi (1997) coordinator, International Recruitment; BA/BS, University of Southern Colorado

Lundahl, Sandra L. (1985) assistant director, University Relations; 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

McCormack, Jody (1998) Accounting Information Manager, BS, University of Northern Colorado

Masterson, Daniel (1998) Symphony Coordinator

McCarver, Cynthia (1993) program coordinator, Downtown Center, Colorado Springs, Continuing Education; BS, University of Maryland

McHugh, Kathryn M. (1981) foundation manager, USC Foundation; BS, BA, University of Southern Colorado

Meckley, Priscilla (1994) Director, facilities planning, office of Business Services; BS, Pennsylvania State University

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 California

Miller, Diana L. (1985) Education Specialist, Raptor Center, Greenway and Nature Center of Pueblo; BS, Southern Illinois University

Morales, Ofelia (1995) Financial Services Counselor; BSW, University of Southern Colorado

- Morken, Carol** (1992) director, Academic Advising Center; BS, University of Southern Colorado; M.Ed., University of San Diego
- Morken, Les** (1995) director, marketing/promotions, Athletics; BS, Moorhead State University; MA, University of Northern Colorado
- Morris, Raymond** (1996) Interlibrary Loan Assistant; BS, Colorado State University
- Moses, Douglas J.** (1985) head coach, wrestling, Athletics; BA, Adams State College; MA, Colorado State University
- Nikjoo, Behrooz** (1999) director of Construction and Facilities Planning; BS, Texas Tech University
- Nivens-Aragon, Donna** (1993) interim director, learning assistance specialist, Learning Center; BS, University of Southern Colorado; MA, University of Colorado, Colorado Springs
- Ortega, M. Donald** (1991) assistant controller and director Student Financial Services, Office of 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
- Perchan, Stanley** (1999) director of athletics; BS, Ashland University; MS, St. Francis College
- Perez, Cynthia M.** (1977) director, Student Support Services; BA, University of Southern Colorado; MA, Lesley College
- Rasley, Lora** (1997) director, Residence Life and Housing; BA, St. Cloud State University; MCoun, Idaho State University
- Riccatone-Trujillo, Dana** (1995) admissions counselor, Office of Admissions; BS, University of Southern Colorado
- Rote, John** (1990) coordinator, grounds/facilities, Greenway and Nature Center of Pueblo
- Roudebush, David C.** (1997) chief business officer for the Alliance; BA, Concordia College; MA, UCCS, Colorado; Ph.D., University of Denver
- Sajak, Roger** (1995) production manager, KTSC-TV; BS, Southern Illinois University
- 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; BA, University of Southern Colorado
- Shields, Ronald F.** (1994) assistant program coordinator of Continuing Education, Peterson AFB; BS, Regis University
- 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, Advising Center; BS, MS, Western Illinois University
- Somerday, Marianne** (1999) program coordinator, Nature Center
- Stanley, Roy** (1994) head coach, men and womens' soccer, Athletics; BA, Princeton University; MA, University of Tulsa
- Stastny, Everett E.** (1988) director, Purchasing; BA, University of Colorado
- Stoker, Cheryl L.** (1998) director, Learning Assistance Center; 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
- Sullivan, Wynona** (1989) station manager, KTSC-TV
- Trujillo, Brenda** (1996) tutor/study skills coordinator, Student Support Services; BA, Regis University; AAS, Pueblo Community College
- Trujillo-Sánchez, Gloria** (1994) director of Personnel/Affirmative Action; BA, Loretto Heights College, MA, Norwich University, Ph.D., Union Institute
- Vanbuskirk, Lara** (1997) assistant program manager, Continuing Education; BS, University of Southern Colorado
- Vorndam, Margaret E.** (1994) assistant director, Greenway and Nature Center of Pueblo; BS, State University of New York at Cortland; MS, University of Montana
- 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
- Weaver, Kelly K.** (1998) program manager, Continuing Education, Mcguire AFB
- 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 1997-98 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

Aguilar, M. Kay (1964) professor of exercise science and health promotion; BS, Lock Haven State University; MA, Adams State College; Ed.D., University of Northern Colorado

Ahmadian, Ahmad (1985) associate professor of management; BA, Tehran University; MBA, Ph.D., North Texas State

Aichele, Ronald G. (1972) associate professor of philosophy; BA, MA, Ph.D., University of Missouri

Aldag, Leslie (1998) assistant professor, speech communications; BA, California State University, Fresno; MS, California State University, Sacramento; Ph.D., University of California, Davis

Allen, Ernest E. (1963) professor of mathematics; BS, Wayne State University; BS, MA, Michigan State University; MATM, University of Detroit; Ed.D., University of Northern Colorado

Anderson, Deyrol E. (1983) professor of mass communications; BA, Washington State University; MA, San Francisco State University; Ph.D., University of Denver

Avina, Maya (1995) assistant professor of art; BA, Humboldt State University; MFA, University of California at Santa Barbara

Baca, Judy M. (1981) associate professor of social work; 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, J. Michael (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, Worcester 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 Pedagogy, 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

Bottini, Patrick W. (1968) associate professor of facilities management and technology studies; BS, Southern Colorado State College; MA, Adams State College

Bridges, Gary (1986) assistant professor of accounting; BA, Baylor University; MBA, University of Texas; CPA

Brown, Kathy (1995) assistant professor of nursing; BSN, University of Phoenix; MSN, University of Colorado

Browne, James H. (1991) associate professor of management; BA, MA, Western Illinois University; Ph.D., University of Illinois

Burnett, Ingrid Schierling (1996) assistant professor, assistant reference librarian; MLS, University of Arizona; MA, Kansas State University

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

Cameron, James T. (1970) professor of psychology; BA, The Colorado College; MA, Ph.D., University of Colorado

Caprioglio, Daniel (1993) assistant professor of biology; BA, University of California at Los Angeles; Ph.D., North Carolina State University

Caprioglio, Helen M. (1995) assistant 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

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

Cobian, Dora Luz (1995) assistant professor of Spanish; BA, MA, University of California at San Diego; Ph.D., University of California at Riverside

Covi, Silvio (1986) professor of foreign language; B.Th., Universitas Urbaniana, Rome, Italy; MA, Ph.D., State University of New York at Buffalo

Dalton, Dennis (1993) associate professor of art; BA, University of Toledo; MFA, University of Utah

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) assistant professor of nursing; BSN, Johns 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) assistant professor of biology; BS, Institut Polytechnique Rural de Katibougou, Mali, West Africa; MS and Ph.D., University of Georgia

Dillon, David (1998) visiting assistant professor of chemistry; BS, East Texas State University; 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) associate professor of economics; BA, University of California; Ph.D., University of Utah

Ebersole, Samuel (1990) associate professor of mass communications; BA, Southern California College; MA, Regent University

Eisenbeis, H. Richard (1988) professor of management; BA, Lafayette College; MS, University of Montana; MS, Ph.D., The University of Arizona

Fogelquist, James D. (1993) associate professor of foreign language; BA, University of California at Los Angeles; MA, Ph.D., Yale University

Forsyth, Dan W. (1983) professor of anthropology; BA, University of California; MA, University of Chicago; Ph.D., University of California at San Diego

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, University of California at Berkeley; Ph.D., University of California at Berkeley

Garibova, Karine (1999) Veronika String Quartet; BA, Gnesins' Russian Academy of Music; MM, Gnesins' Russian Academy of Music; DMA, Gnesin's State Institute of Music, Russia; MM, Miami University of Ohio

Gill, John P., Jr. (1971) professor of mathematics; BS, University of Georgia; MA, University of Alabama; Ph.D., Colorado State University

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) assistant 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

Graham, Robert E. (1980) associate professor of physics; BS, University of Tulsa; MS, Ph.D., University of Arkansas

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

Hale, Trevor S. (1996) assistant professor, engineering; BS, Penn State University; MS, Northeastern University; Ph.D., Texas A&M 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) assistant professor of art; BA, College of William and Mary; MFA, Kansas State University

- Hawkins, Sharon** (1993) professor of social work; BA, Marillac College; MSW, University of Denver; LCSW
- 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
- Hochman, Will** (1991) assistant professor of English; BA, Hobart College; MFA, University of Montana; Ph.D., New York University
- Holderness, Ward L.** (1969) assistant professor of civil engineering technology; AAS, BS, Southern Colorado State College
- Hooper, Jacqueline** (1996) associate professor of exercise science and health promotion; BS, Portland State University; MS, Washington State University; MPH, Dr. PH, Loma Linda University;
- 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
- Hughes, Cornelius G.** (1976) professor of sociology; BA, Belmont College; MA, California State University at Northridge; Ph.D., The Pennsylvania State University
- Illick, Peter M.** (1971) assistant professor of English; BA, University of Vermont; MA, University of Wyoming
- 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
- Jones, Sara** (1995) assistant professor of mathematics; BA, University of California at Davis; MA, Ph.D. University of California at Santa Barbara
- 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
- 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) assistant 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, L. Dennis** (1976) professor of psychology; BA, University of Southern Colorado; MS, New Mexico Highlands University; Ph.D., University of California at Santa Barbara
- Marino, Charles J.** (1966) associate professor of art; BA, St. John's College; BFA, Pratt Institute; MA, Columbia Teacher's College
- Martinez, Lee Anne** (1992) assistant professor of biology; BA, University of California at Santa Barbara; MA, University of California at Santa Cruz; Ph.D., Cornell University
- Massey, Frank A.** (1963) associate professor of engineering; BIE, BBA, MS, University of Minnesota; MFA, University of Colorado; Ph.D., University of Wisconsin

- 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, Gnesins' Russian Academy of Music; 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
- Morales, Heberto** (1987) professor of foreign language; seminaries in Las Casas, Montezuma, and Puebla, Mexico; Ph.D., Gregorian University, Rome, Italy
- Mullen, Jennifer** (1994) assistant professor of mass communications; BA, University of Southern Colorado; MA, University of Northern Colorado
- Muller, Doyle K.** (1963) associate professor of music; BM, BA, Huron College; MM, University of 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 L.** (1972) associate professor of speech communication; BA, Adams State College; MA, Central Michigan University; Ph.D., University of Nebraska
- Opitz, Michael F.** (1990) associate professor of education and director, reading minor; BA, MA, University of Northern Colorado; Ph.D., University of Oregon
- 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) associate professor of political science; BA, MA, University of Northern Colorado; MA, Ph.D., University of Denver
- Padgett, John J.** (1967) associate professor of computer information systems; BS, University of Southern Colorado; MBA, University of Colorado
- Paulson, Shannon** (1998) assistant professor, Library
- Pavlik, Richard E.** (1963) professor of mass communications; BS, MA, The Ohio State University
- Piazza, Jenny** (1996) assistant professor of education; BA, Park College; MA, Adams State College; Ed.D., Oklahoma State University
- Proctor, Kristina G.** (1989) associate professor of chemistry; BS, University of Southern Colorado; Ph.D., Colorado State University
- Regassa, Hailu** (1989) associate professor of accounting; BBA, Haile Selassie University, Ethiopia; MBA, Ph.D., University of Oregon
- Rodriguez-Arenas, Flor Maria** (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, director, Center for Teaching, Learning and Research; BA, University of California at Los Angeles; MA, California State University at Northridge; MA, Ph.D., Claremont Graduate School
- Sabo, Barbara J.** (1974) associate professor of nursing; RN, St. Mary Corwin Hospital School of Nursing; AA, Pueblo College; BS, MS, Ph.D., University of Colorado
- Sandoval, David A.** (1980) professor of Chicano studies and history; BS, Eastern New Mexico University; MA, Southern Methodist University; Ph.D., University of Utah
- Sarper, Hüseyin** (1988) associate 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
- Senatore, Margaret L.** (1964) assistant professor of English; BA, The Colorado College; MA, University of Colorado
- Shah, Abhay** (1988) associate 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; AB, AM and Ph.D., Stanford University
- Sherman, John R.** (1971) professor of speech communication; BA, Hunter College; MA, Ph.D., Southern Illinois University
- Soto-Johnson, Hortensia** (1989) assistant 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
- Steen, Melva** (1992) associate professor of nursing; BSN, Northern Michigan University; MA, University of Missouri, Kansas City; Ph.D., University of Texas, Austin
- Stratton, William O.** (1993) professor of accounting; BS, Florida State University; BS, Pennsylvania University; MSBA, Boston University; Ph.D., Claremont Graduate School
- 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
- Tappen, John B.** (1982) associate professor of electronics engineering technology; BA, Wesleyan University; BS, University of Utah; MS, University of Arizona; Ph.D., University of Tennessee
- Taverra, Alvaro D.** (1998) assistant professor, engineering; BS, Universidade Federal de Uberlandia, Brazil; MS, Universidade Federal de Santa Cararina, Brazil; Ph.D., University of Wisconsin at Madison
- Taylor, Cynthia** (1989) assistant 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) associate 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, Krakow, Poland; Ph.D., University of Wyoming
- Warnock, Stuart H.** (1991) associate professor of management; BS, Midwestern State University; Ph.D., University of North Texas
- 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
- 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 and Ph.D., University of Colorado
- Wintermute, Wendy** (1991) assistant professor of social work; BA, Swarthmore College; MA, Columbia University; MSW, Ph.D., University of Michigan
- Womack, Larry O.** (1972) professor of civil engineering technology; AA, University of Southern Colorado; BSCE, Colorado State University; MSCE, University of Missouri
- 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 FOR ARTS AND SCIENCE INSTRUCTORS

- Annand, Carol** (1995) BA, University of Colorado
- Benavidez, Dianne** (1997) BS, University of Southern Colorado; MA, Regis University
- Benavidez, Don** (1994) BA, Adams State; MA, Lesley College
- Edelstein, Marlene** (1998) BS, University of Southern Colorado
- Fishman, Susan** (1998) BS, MA, University of Wisconsin
- Frye, Paulette** (1997) BA, University of Southern Colorado
- Hanks, Andy** (1998) BA, University of Southern Colorado
- Hartgraves, Stephanie** (1994) BA, University of Southern Colorado
- Holder, Gary** (1994) BA, Colorado State University; MA, Lesley College
- Kelly, Gail** (1998) BA, Davis & Elkins College
- Kitson, Kelly** (1998) BS, Murray State University
- Lehmann, Lauren** (1994) BA, University of Maryland; MA, Antioch College
- Lucero, Marilyn** (1998) BA, University of Southern Colorado
- Martinez, Charlotte** (1994) BA, University of Northern Colorado
- McKinsey, Sara** (1996) BA, University of Southern Colorado

Myerhofer, Russell (1998)

Pezzuto, Michael (1998) BA, California State University; MA, University of Phoenix

Provenza, Sandy (1998) BS, University of Southern Colorado

Ramu, Cynthia (1998) BA, University of Southern Colorado

Romero, Virginia (1998) BA, University of Southern Colorado

Sweet-Seip, Kerry (1998) BA, University of Southern Colorado

Simmons, Robert (1997) BA, University of Northern Colorado

Valdez-Hall, Vivian (1994) BA, University of Southern Colorado; MA, Lesley College

Vallejo, Edmund (1999) BA, Adams State University; MA, University of Northern Colorado; Ph.D., Kansas State University

White, Gala (1997) BA, MA, Eastern New Mexico University

Wold, Roberta (1995) BA, University of Southern Colorado

Wood, Allen (1994) BA, University of Southern Colorado

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

Birr, Marlene (1996) artist-in-residence; MFA, University of Colorado; BA, University of Toledo

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

De Witt, 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, Gnesins' Russian Academy of Music; MM, Gnesins' Russian Academy of Music; DMA, Gnesins' Russian Academy 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, Gnesins' Russian Academy of Music; MM, Gnesins' Russian Academy of Music; MM, Miami University of Ohio

EMERITUS FACULTY

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 emerita 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 English

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 emeritus of business administration

Bradley, Lawrence B. (1966-1988) BA, MA, professor emeritus of speech communication/theatre

Brassill, Joann A. (1967-1987) BA, MA, MFA, professor emerita of art

Bright, A. Leon (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

Croxtan, Carol (1978-1994) BA, MA, Ph.D., professor emeritus of English

- Davison, Earl** (1950-1975) BS, professor emeritus of industrial technology
- 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
- Hammond, William A.** (1957-1987) BSBA, MBA, professor emeritus of accounting
- 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
- 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, 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
- Kenyon, Gordon R.** (1960-1980) BA, MA, Ph.D., professor emeritus of history
- Levy, Ralph W.** (1957-1981) BA, MA, professor emeritus of music
- Li, Hung C.** (1969-1990) 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
- Markowski, Victoria** (1969-1999) BM, professor emeritus 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
- 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
- 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 emeritus 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, P. Merle** (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 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

Stjernholm, Kirstine (1967-1995) 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

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

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ACADEMIC CALENDAR 2000-2004

FALL	2000	2001	2002	2003
Graduation Planning Sheets Due	Apr 14 (00)	Apr 20 (01)	Apr 19 (02)	Apr 18 (03)
Registration Begins	Mar 13	Mar 19	Mar 18	Mar 17
Open Registration	Aug 18	Aug 24	Aug 23	Aug 22
Classes Begin	Aug 21	Aug 27	Aug 26	Aug 25
End Drop/Add	Sept 4	Sept 10	Sept 9	Sept 8
Thanksgiving Break	Nov 20-24	Nov 19-23	Nov 25-29	Nov 24-28
Classes End	Dec 1	Dec 7	Dec 6	Dec 5
Final Exams	Dec 4-8	Dec 10-14	Dec 9-13	Dec 8-12
Commencement	Dec 9	Dec 15	Dec 14	Dec 13
SPRING	2001	2002	2003	2004
Graduation Planning Sheets Due	Oct 13 (00)	Oct 12 (01)	Oct 11 (02)	Oct 10 (03)
Registration Begins	Oct 23 (00)	Oct 22 (01)	Oct 21 (02)	Oct 20 (03)
Open Registration	Jan 12	Jan 11	Jan 10	Jan 9
Classes Begin	Jan 15	Jan 14	Jan 13	Jan 12
End Drop/Add	Jan 29	Jan 28	Jan 27	Jan 26
Spring Break	Mar 26-30	Mar 25-29	Mar 24-28	Mar 22-26
Classes End	Apr 27	Apr 26	Apr 25	Apr 23
Final Exams	Apr 30-May 4	Apr 29-May 3	Apr 28-May 2	Apr 26-30
Commencement	May 5	May 4	May 3	May 1
SUMMER	2001	2002	2003	2004
Graduation Planning Sheets Due	Mar 9 (01)	Mar 8 (02)	Mar 7 (03)	Mar 12 (04)
Registration Begins	Mar 19 <i>APR. 2</i>	Mar 18	Mar 17	Mar 15
Open Registration	May 11	May 10	May 9	May 7
First 4, 6 and 12-week Sessions				
Classes Begin	May 14	May 13	May 12	May 10
End Drop/Add				
First 4-week	May 16	May 15	May 14	May 12
First 6-week	May 18	May 17	May 16	May 14
12-week	May 24	May 23	May 22	May 20
Classes End				
First 4-week	June 8	June 7	June 6	June 4
First 6-week	June 22	June 21	June 20	June 18
12-week	Aug 3	Aug 2	Aug 1	July 30
Second 4-week Session				
Classes Begin	June 11	June 10	June 9	June 7
End Drop/Add	June 13	June 12	June 11	June 9
Independence Day (USC Closed)	July 4 (W)	July 4(Th)	July 4 (F)	July 5 (M)
Classes End	July 6	July 5	July 3	July 2
Second 6-week Session				
Classes Begin	June 25	June 24	June 23	June 21
End Drop/Add	June 29	June 28	June 27	June 25
Classes End	Aug 3	Aug 2	Aug 1	July 30
Third 4-week Session				
Classes Begin	July 9	July 8	July 7	July 6
End Drop/Add	July 11	July 10	July 9	July 8
Classes End	Aug 3	Aug 2	Aug 1	July 30

* Note - These Calendars are planned in advance and are subject to change.