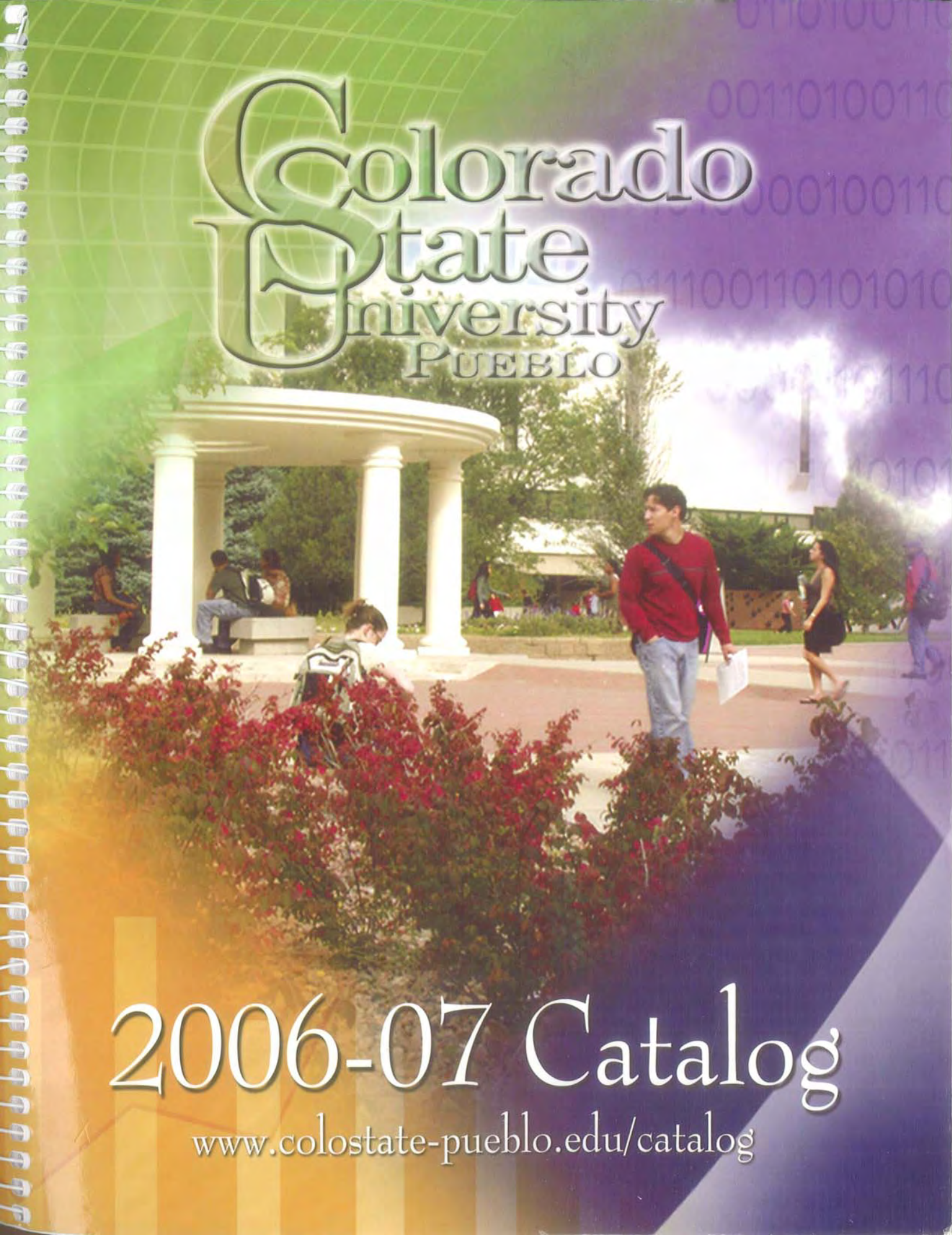
Colorado State University
Pueblo
2006-07 Catalog
www.colostate-pueblo.edu/catalog

UNIVERSITY CALENDAR 2006-2007

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 Semester Notes posted on our University web site at www.colostate-pueblo.edu prior to the beginning of each semester.

FALL 2006

Graduation Planning Sheets Due.....Feb. 3 (06)

Registration Begins..... March 6
New Student Orientation and Advisement/
Registration .....Aug. 24
Open Registration .....Aug. 25
Classes Begin .....Aug. 28
End Drop/Add .....Sept. 11
End of Course Withdrawal Period..... Oct. 27
Thanksgiving Break .....Nov. 20-24
Classes End.....Dec. 8
Final Exams .....Dec. 11-15

SPRING 2007

Graduation Planning Sheets Due..... Sept. 15 (06)
Registration Begins..... Oct. 23
New Student Orientation and Advisement/
Registration ..... Jan. 11
Open Registration ..... Jan. 12
Classes Begin..... Jan. 15
End Drop/Add ..... Jan. 29
End of Course Withdrawal Period..... March 16
Spring Break.....March 19-23
Classes End.....April 27
Final Exams .....April 30 -May 4
Commencement..... May 5

Note: These Calendars are planned in advance and are subject to change.

SUMMER COLLEGE

Summer College consists of multiple sessions. Specific information about Summer College is available in the Semester Notes posted on our University web site at www.colostate-pueblo.edu prior to the beginning of the first session.

SUMMER 2007

Graduation Planning Sheets Due..... Feb. 2 (07)

Registration Begins .....March 5
Open Registration (all sessions)..... May 11

First 4, 6 and 12-week Sessions

Classes Begin .....May 14
End Drop/Add
(First 4-week).....May 16
(First 6-week).....May 17
(12-week).....May 23
Memorial Day (University Closed).....May 28 (M)
End Course Withdrawal Period
(First 4-week).....May 29
(First 6-week).....June 6
(12-week)..... July 2
Classes End
(First 4-week).....June 7
(First 6-week).....June 21
(12-week)..... Aug 2

Second 4-week Session

Classes Begin .....June 11
End Drop/Add.....June 13
End Course Withdrawal Period .....June 26
Independence Day Holiday
(University Closed)..... July 4 (W)
Classes End ..... July 5

Second 6-week Session

Classes Begin .....June 25
End Drop/Add.....June 28
End Course Withdrawal Period ..... July 18
Classes End ..... Aug. 2

Third 4-week Session

Classes Begin ..... July 9
End Drop/Add..... July 11
End Course Withdrawal Period ..... July 24
Classes End ..... Aug. 2

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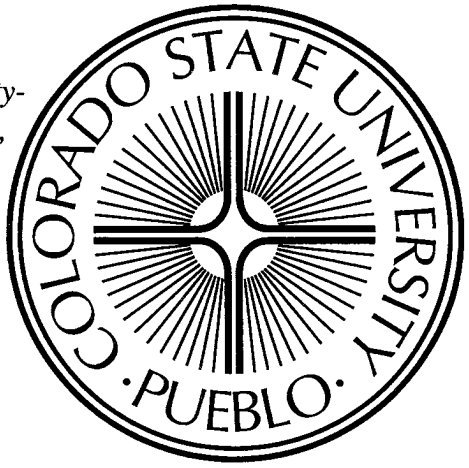
2006-2007

Colorado State University-Pueblo
2200 Bonforte Boulevard
Pueblo, Colorado 81001

Telephone: (719) 549-2100
Web site: www.colostate-pueblo.edu

An Invitation

You are cordially invited to visit the Colorado State University-Pueblo 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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Colorado State University Pueblo

Walkingstick

PUEBLO MUNICIPAL GOLF COURSE

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

CAMPUS LEGEND

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

RAWLINGS OUTDOOR SPORTS COMPLEX

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

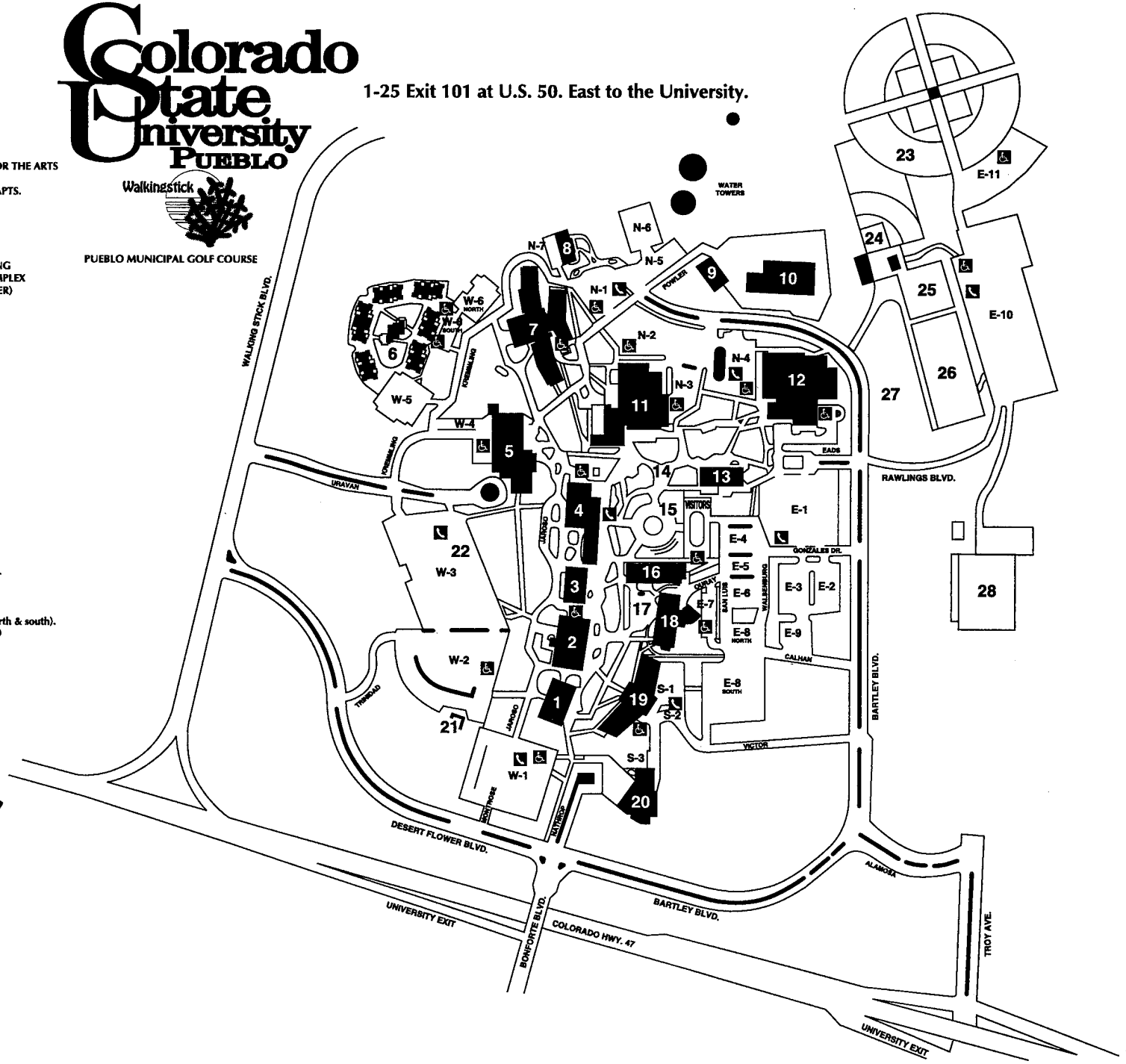
PARKING LOT SECTORS

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

Emergency Phones

N

S



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The following is a list of majors and degrees available at Colorado State University-Pueblo. 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 EDUCATION, ENGINEERING, AND PROFESSIONAL STUDIES

Automotive Industry Management ..... BS
Civil Engineering Technology ..... BSCET
Engineering with a Specialization in Mechatronics ..... BSE
Exercise Science, Health Promotion, and Recreation ..... BS
Industrial Engineering ..... BSIE
Industrial and Systems Engineering ..... MS
Nursing ..... BSN, MS

Teacher Education Program

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

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

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Art ..... BA, BFA
English ..... BA
Foreign Language-Spanish ..... BA
History ..... BA, BS
Liberal Studies ..... BS
Mass Communications ..... BA, BS
Music ..... BA
Political Science ..... BA, BS
Psychology ..... BA, BS
Social Science (offered through Continuing Education only) ..... BA, BS
Social Work ..... BSW
Sociology ..... BA, BS

COLLEGE OF SCIENCE AND MATH

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

HASAN SCHOOL OF BUSINESS

CONSORTIUM PROGRAMS

Colorado State University-Pueblo also offers the following programs through special consortium agreements with Colorado State University (Fort Collins).

ALPHABETICAL LIST OF UNDERGRADUATE MAJORS/EMPHASIS AREAS

The following is an alphabetical list of undergraduate majors and their emphasis areas that are available at Colorado State University-Pueblo. This list is subject to change.

ALPHABETICAL LIST OF GRADUATE MAJORS/EMPHASIS AREAS

The following is an alphabetical list of graduate majors and their emphasis areas that are available at Colorado State University-Pueblo. This list is subject to change.

MINORS

The following is a list of approved minors available at Colorado State University-Pueblo. This list is subject to change.

THE UNIVERSITY

HISTORY

Since its incorporation in 1933 as Southern Colorado Junior College to its new designation as a regional, comprehensive university, CSU-Pueblo has served the changing needs of the citizens of Colorado.

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.

Over the next 15 years, USC and CSU increasingly collaborated to bring more educational resources to southern Colorado. In spring 2002, Colorado's General Assembly passed legislation that changed the name of the University's governing board to "Board of Governors of the Colorado State University System," designated Fort Lewis College as independent of the System, renamed USC "Colorado State University-Pueblo," and approved a new mission for the University. The name and mission changes became official on July 1, 2003.

MISSION

The state of Colorado established and continues to recognize the University through state statutes:

> *There is hereby established a University at Pueblo, to be known as Colorado State University-Pueblo, which shall be a regional, comprehensive university with moderately selective admissions standards. The University shall offer a broad array of baccalaureate programs with a strong professional focus and a firm grounding in the liberal arts and sciences. The University shall also offer selected masters level graduate programs.* (Colorado Statutes 23-55-101)

In April, 2005 the Board of Governors of the Colorado State University System adopted a complementary, focused mission statement for the University that stresses its distinctiveness and central commitments:

> *Colorado State University-Pueblo is committed to excellence, setting the standard for regional comprehensive universities in teaching, research and service by providing leadership and access for its region while maintaining its commitment to diversity.*

Both of these statements guide the University in all that it does.

As a comprehensive university, CSU-Pueblo offers a wide array of undergraduate degree programs in the humanities, social sciences, sciences and math, education, engineering, nursing, business, and other professional areas. The University's educational focus on preparing graduates for professional careers is grounded in the traditional liberal arts and sciences, and so addresses students' immediate and long-term educational needs. Students graduate with the knowledge necessary to enter their professions and with the learning skills (e.g., problem solving, critical thinking, research, and communication) required to keep current in those professions into the future. The broad professional and civic activities of our graduates also demonstrate the importance of learning how to engage more broadly in productive, meaningful and responsible commitments while attaining economic success. These outcomes stem from the University's simultaneous emphasis on liberal arts and sciences and professional coursework.

Characteristic of regional comprehensive universities nationwide, CSU-Pueblo also offers selected masters degrees that meet both regional and broad societal needs. Currently these are in business, nursing, engineering and the sciences. In collaboration with CSU in Fort Collins, CSU-Pueblo also offers the masters degree in English.

As sister institutions, CSU-Pueblo and CSU in Fort Collins share many important values and commitments, even while they pursue different missions—CSU in Fort Collins as a large research, doctoral granting university and CSU-Pueblo as a small comprehensive, masters granting university. Both universities are committed to excellence and strive to set the quality standards for their types of institutions. Both have excellent undergraduate and graduate programs that serve the citizens of Colorado through teaching, research, and service. Both universities promote civic engagement, freedom of expression, innovation, inclusiveness and diversity, integrity and mutual respect, and both are committed to employing a student-centered focus, providing opportunity and access, and being accountable.

High quality teaching and learning is Colorado State University-Pueblo's highest priority. In recent years, program offerings have been expanded, new teaching and learning methods—especially those involving active, applied learning and technology—have been incorporated into all programs, faculty have strengthened their scholarly activities to stay current in their fields of expertise, and effective student academic suppost services (e.g., advising, learning centers, career planning) are readily available. As a result, CSU-Pueblo offers comprehensive and effective learning experiences that meet the many needs of our students.

The University is similarly committed to expanding access to higher education, especially for Colorado citizens. It has expanded its recruitment, admissions and financial aid resources, as well as its evening and continuing education offerings, to provide high quality educational opportunities for a broader student population. It also works closely with other public institutions in the state to smooth the transfer process for incoming, outgoing, and dual enrollment students.

CSU-Pueblo's success in fulfilling its mission to be an educational resource for the state's diverse population is documented by the characteristics of our student body. We have strong representations of traditional and non-traditional students, campus-based and community-based students, students from Colorado and from foreign countries, first-year and transfer students, students fresh out of high school and students who are working professionals with families to support, and multiple ethnic groups of students. The University is strongly committed to providing access to members of all minority groups, paraticularly the Hispanic and native Chicano/a populations 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. Indeed, because more than 25 percent of our students are Hispanic and 50% of those are low income, the Federal Government has designated CSU-Pueblo as a "Hispanic Serving Institution."

The high level of diversity in our learning community coupled with excellent academic and student life programs prepare our graduates well for the complex professional and personal lives that define modern society. Our graduates have proven their ability to transcend society's socioeconomic, educational and cultural barriers by successfully entering professional occupations and graduate programs as highly informed and engaged members of their communities.

As a regional comprehensive university, CSU-Pueblo assumes a leadership role in enhancing the overall quality of life and economic growth in sourheastern Colorado. Faculty, staff, and students offer a wide array of community services including cultural and educational events and programs, clinical and health resources, student internships, workshops, consultations, and research on community and business problems. In partnership with other community organizations, the University has committed its time and talents especially to initiatives aimed at enhancing the economic development, pre-kindergarten through high school educational opportunities, cultural activities and community support resources in the region.

In summary, the University's statutory and focused mission statements guide the development of its comprehensive curriculum and degree programs, the implementation of its high academic standards, the broad assessibility that students have to its resources, and its active involvement in service to the regional community. Directed by its clear mission-based commitments and energized by its fine faculty, staff, and students, Colorado State University-Pueblo strives for excellence in all of its activities.

GOVERNANCE

CSU-Pueblo is governed by the Board of Governors of the Colorado State University System, which also governs Colorado State University in Fort Collins. The Colorado Commission of Higher Education, the central policy and coordinating board for all public institutions, establishes policy on legislative, academic, and fiscal matters.

ACCREDITATION

Colorado State University-Pueblo is accredited by the Higher Learning Commission, a Commission of the North Central Association of Colleges and Schools, 30 N. LaSalle St., Suite 2400, Chicago, IL, 60602-2501, Phone (800) 621-7440.

Individual programs approved by specialized accreditation agencies include: athletic training, the Commission on the Accreditation of Allied Health Education Programs (CAAHEP); 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 and the Teacher Education Accreditation Council; music, the National Association of the Schools of Music; nursing, the National League for Nursing; and social work, the Council of Social Work Education. The Hasan School of Business is accredited by the Association to Advance Collegiate Schools of Business (AACSB) International.

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY COMMITMENT

Colorado State University-Pueblo 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 Colorado State University-Pueblo. 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 the Director of Diversity, Colorado State University-Pueblo, 2200 Bonforte Boulevard, Pueblo, Colorado, 81001-4901, Phone (719) 549-2521 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) 549-2441.

THE CAMPUS

CSU-Pueblo spans more than 275 acres on the northeast edge of Pueblo, a culturally diverse city of more than 100,000 in the colorful Pikes Peak region of southern Colorado. Located on the Front Range of the Rocky Mountains, the University enjoys an average 320 days of sunshine each year. From sailing on Lake Pueblo and whitewater rafting on the Arkansas River to skiing and snowboarding in the nearby mountains, the university's 4,000-plus students enjoy a wide range of outdoor activities. Belmont Residence Hall houses nearly 500 students in three wings that are joined by a large commons area. The University Village at Walking Stick is an on-campus apartment community for sophomores, juniors, and seniors.

EMERGENCY CLOSURE POLICY

Due to extreme weather conditions, energy resource reductions or situations impacting normal operating conditions, it may be necessary to curtail or shut down university operations. The Emergency Closure Policy

(ECP) will be followed in all CSU-Pueblo emergency closure situations. The emergency closure procedures are as follows:

1. The emergency closure process will be initiated by the Pueblo County Sheriff's Office substation on campus.

2. The Pueblo County Sheriff's Office will contact appropriate internal and external departments and agencies for input regarding the decision-making process.

3. The Pueblo County Sheriff's Office will provide by 5:45 a.m. to the Vice President for Finance and Administration a verbal report, including a general review of conditions, impending developments, and a recommendation for action. The Vice President for Finance and Administration will notify the President, who will make all closure decisions.

4. The Pueblo County Sheriff's Office will notify by telephone persons designated as having individual building responsibilities for any official closure. If necessary, a police officer will be dispatched to individual buildings to insure proper and complete notification.

5. The Vice President for Finance and Administration will notify the Provost and the Executive Director of External Affairs of any closures or shutdowns, including:

   a. Partial closedown or delay¾staff to report but no classes to be held.

   b. Total closedown—no staff to report; no classes.

6. Unless instructed otherwise, all designated essential personnel (e.g., BRH, food service, Sheriff's Office and physical plant, environmental health and safety, and auxiliary service units) will report to work.

7. All other employees will be notified by their supervisors whether or not to report (i.e., vice presidents will notify deans and directors, who in turn will notify department heads, and/or office managers, who in turn will notify faculty, classified staff and work study students in their respective areas). Those responsible for telephoning others will have available at all times an updated list of their contacts' home telephone numbers.

8. Employees who have not received direct notification within a reasonable amount of time should contact their supervisors if unsure about whether to report.

9. The Executive Director of External Affairs is responsible for notifying local and regional radio and television stations of campus closures through the Flashnet Media Service. Closure notification also will include the Pueblo Transportation Company and any non-law enforcement organizations that are appropriate.

10. Closure decisions impacting on-campus and off-campus evening classes (i.e., Colorado Springs and Canon City) should be made by 3 p.m.

11. Despite improving conditions, any decisions for closure will remain in effect for the period of time originally specified.

TERMS OF THIS CATALOG ISSUE

Students graduate under the catalog requirements noted in the *Academic Policies* section of this catalog.

All statements made in this catalog and similar publications distributed generally to prospective or admitted students or interested parties shall be for informational purposes only and should not be interpreted as being contractual. Colorado State University-Pueblo reserves the right to change, modify, or cancel any course, program, procedure, policy, financial requirement, or disciplinary arrangement set forth in this catalog whenever, in its sole discretion, it determines such action to be appropriate. Furthermore, Colorado State University-Pueblo will not be responsible for any failure to present or complete any course or program or to perform any other activity, function, or obligation mentioned in this catalog.

ADMISSION

Colorado State University-Pueblo 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 CSU-Pueblo programs, as well as University admission procedures, from the Office of Admissions. Campus tours are available Monday through Friday. Prospective students should make advance arrangements for a tour by calling (719) 549-2461.

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

ENTERING FRESHMEN

Admission Standards

Colorado State University-Pueblo'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 Colorado State University-Pueblo if the CCHE admissions index score is 86 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	25	1120 - 1150
2.300	22	1010 - 1040
2.600	20	930 - 960
3.000	16	750 - 790
3.300	14	610 - 680

If applicants do not achieve an index score of at least 86 with a minimum cumulative GPA of 2.0, the credentials will be reviewed by an admissions committee which will base a recommendation for admission on:

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

2) The applicant's previous academic record. Students with non-traditional backgrounds are encouraged to apply.

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

Admission Requirements

Students may apply any time after the completion of their junior year in high school. One official transcript of high school work should be sent directly to the Office of Admissions 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 CSU-Pueblo application;

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

3) An official transcript of high school records or GED scores; and

4) Scores from either the ACT or the SAT.

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

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

Application Deadlines

For the best scholarship, registration time, and housing considerations, applicants should apply and be admitted as early as possible. Those still in high school may apply once they have completed six semesters. To be considered for a specific term, all documents required for admission must be received in the Office of Admissions by the deadline for that term. Transfer students should allow sufficient time to have transcripts sent from all institutions previously attended.

Application forms and credentials must be filed by the following deadlines:

Fall Semester.....August 1
Spring Semester..... January 2

For application deadline information for off-campus programs in Colorado Springs and for the External Degree Completion Program, please contact the Division of Continuing Education.

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 Colorado State University-Pueblo. 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;
- Three years of natural science including at least two courses with laboratory work;
- Three years of social studies including U.S. History; and
- Two years of a single foreign language.

Advanced Placement

See Credit by Examination (Academic Policies section).

Basic Skills Assessment

The University complies with statewide policies adopted by the Colorado Commission on Higher Education (CCHE). Effective fall 2001, every public institution of higher education in Colorado is required to assess the reading, writing, and mathematic skill levels of all first-time, degree-seeking students. **Students whose assessment scores fall below the minimum requirements must enroll and successfully complete the appropriate skill building course(s) within their first 30 credit hours towards graduation.** Basic Skills Levels are determined by ACT or SAT scores. If students do not have an ACT or SAT score they must take the appropriate ACCUPLACER test.

Cut scores are listed below:

CCHE Placement Guidelines

Skill Area: Reading

ACT Subscore	SAT Subscore	ACCUPLACER Score
Reading 17	Verbal 430	Reading Comp.....80

Skill Area: Writing

ACT Subscore	SAT Subscore	ACCUPLACER Score
English.....18	Verbal 440	Sentence Skills.....95

Skill Area: Mathematics

ACT Subscore	SAT Subscore	ACCUPLACER Score
Math 19	Math..... 470	Elementary Algebra..85

For more information on Basic Skills Assessment, contact the Director of Student Academic Services at (719) 549-2225.

TRANSFER STUDENTS

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

1) A completed CSU-Pueblo application;
2) A $25 application fee (non-refundable);
3) Official transcripts sent directly to CSU-Pueblo from each college attended; and
4) Final high school transcripts and ACT or SAT scores must also be submitted if total transfer credits earned are less than 13 transferable semester hours.

Note: Transfer students who have less than 13 transferable collegiate semester credit hours must meet the first-time freshmen standards. This includes international applicants.

Transfer students must be in good standing at the institution last attended and have at least a 2.300 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 CSU-Pueblo 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

CSU-Pueblo 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 Policies* section of this catalog.

Colorado State University-Pueblo and several Colorado Community Colleges have developed a program to enhance the process for students to transfer to the University known as ***Destination CSU-Pueblo***. Student participants of this program will find transferring to the University simple, seamless, and user-friendly. While enrolled at their home Colorado Community College students will enjoy the services of both their home campus and the University. Upon completion of their Community College studies, they will matriculate to the University and continue progress towards their baccalaureate degree.

The following two-year institutions are participating in the ***Destination CSU-Pueblo*** transfer program: Lamar Community College, Otero Junior College, Pikes Peak Community College, Pueblo Community College, and Trinidad State Junior College. Ideally, community college students are encouraged to begin participation in ***Destination CSU-Pueblo*** their very first semester at their two-year institution. This program is designed to help students prepare for the transition to CSU-Pueblo by creating an individualized transfer plan and assure that each student meets both their two-year and four-year degrees in a timely manner. Students must submit a participation form in order to enroll in ***Destination CSU-Pueblo***. For more information please contact the Office of Admissions or visit the University website at: www.colostate-pueblo.edu.

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 Policies* section of this catalog.)

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

Transfer grades and credits are not computed within the cumulative grade point average earned at Colorado State University-Pueblo. Courses completed with a grade of C- or better are accepted in transfer.

Colorado State University-Pueblo 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 CSU-Pueblo with a C (2.000) average or better.

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

Military service credit is evaluated when official copies of transcripts for military schools are received. Army personnel should submit an AARTS Transcript, Navy and Marine personnel a SMART Transcript, and Air Force personnel a Community College of the Air Force Transcript. Courses are evaluated according to the American Council on Education (ACE) Guidelines. A maximum of 20 semester hours of credit is counted toward a baccalaureate degree. Credit is not given for military service work experience.

Acceptance of credit does not necessarily mean that a specific department will accept the same credit toward

its major requirements. Each department evaluates transfer courses to determine applicability to major and minor requirements.

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

College Level Examination Program

See Credit by Examination (*Academic Policies* section).

Appeals Process

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

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

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

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

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

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

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

INTERNATIONAL STUDENTS

Students who are residents of another country must submit the following to be admitted to CSU-Pueblo:

1) The official international application for University admission, accompanied by a $30 fee for undergraduate admission or $35 fee for graduate admission;

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 Center for International Programs. 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 CSU-Pueblo's English Language Institute 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 2.300 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.

The Center for International Programs reserves the right to change policy. Exceptions are at the discretion of the Director of Admissions and Records.

No international student application for admission will be considered until all required materials are complete. The Center for International Programs must receive all materials by the application deadlines.

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAM

See Credit by Examination (*Academic Policies* section).

RETURNING STUDENTS

Students who have been enrolled and received a grade notation in a course (see *Academic Policies* for grade notations), but whose attendance was interrupted for two or more regular semesters, excluding summer, are required to file an application for readmission by the admissions deadline of the semester in which they wish to enroll. Students seeking readmission must submit a $25 reapplication fee (non-refundable). Students whose previous CSU-Pueblo 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 re-admitted 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

Undergraduate students who return to Colorado State University-Pueblo after an absence of at least three years and whose cumulative CSU-Pueblo grade point average is below 2.000, are eligible for academic renewal. Students who take advantage of the Academic Renewal Policy will not have grade-point averages carried forward upon readmission. Courses with an earned grade of C- or better are eligible to count toward graduation. Students must be currently enrolled for academic renewal to be processed. **Academic renewal will not be granted more than once.**

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

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

Students who have been granted Academic Renewal must complete 60 semester credits with CSU-Pueblo after the Academic Renewal designation to qualify for graduation with scholastic honors.

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

NON-DEGREE STUDENTS

Students may enroll at Colorado State University-Pueblo as a non-degree seeking student in one of the following categories.

Guest Student:

Special student status is reserved for applicants who wish to enroll in courses without degree-seeking status. Applicants who wish to register as a guest student are required to file an application with the Office of Admissions each term that they wish to enroll.

Guest Students will be permitted to register only during Open Registration.

A guest 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. Guest 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. A guest student is ineligible for financial aid.

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 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, non-degree student basis without paying tuition. Permission of the instructor is required.

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 Student Financial Services Office if their status changes from resident to nonresident. Any student who willfully gives wrong information to avoid paying nonresident tuition is subject to legal and disciplinary action.

OFFICE OF FINANCIAL SERVICES

TUITION AND FEES

Tuition and Fee rates and posted payments are on-line at www.colostate-pueblo.edu. Click TWOLF Student Portal to view billing formation. Tuition rates are established by the Board of Governors of the Colorado State University System following budget action of the Colorado General Assembly. The Board of Governors normally acts on tuition and fee charges at its June meeting prior to the start of the academic year. There may be other fees associated with certain classes offered at the University. All fees and charges are subject to change.

Payment plans are available. Students will be assessed a monthly 1.5% extended payment charge on any outstanding balance. Bills are not mailed, so students must review their bill on-line by accessing their PAWS account.

COLLEGE OPPORTUNITY FUND

The College Opportunity Fund (COF) was created by an ACT of the 2004 Colorado State Legislature to provide state tax dollar financial support to eligible Colorado resident undergraduate students. The state will no longer appropriate money to institutions for undergraduate education, but will provide direct funding to the institution on behalf of the student. Students are required to submit a one-time application available at https://cof.college-access.net.

PARKING

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

DELINQUENT STUDENT ACCOUNTS

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

- Administratively withdrawn
- 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.

TUITION APPEALS

The Tuition Appeals Committee will consider requests for adjustment to tuition and fee charges when a student can document extenuating circumstances. Appeals must be made no later than thirty (30) days past the end of the semester in question. Appeal forms can be obtained by contacting the **Office of Student Financial Services**.

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 AID

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, telephone (719) 549-2753. Students may obtain further financial aid information by logging onto www.colostate-pueblo.edu/sfs.

The primary responsibility for educational costs resides with the student and the student's family. Assistance offered through the **Office of Student Financial Services** is intended to supplement the family contribution. 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.

2) Complete a **Free Application for Federal Student Aid** (FAFSA) by March 1. Students may also apply online by logging onto www.fafsa.ed.gov.

   The CSU-Pueblo 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, a copy of the tax return(s), and any other requested documents used to complete the FAFSA prior to being awarded.

5) Once all required information is received, students will receive a financial aid award offer.

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

1) Not enrolled in a degree-seeking program;

2) On financial aid suspension or academic suspension;

3) In default on a federal student loan;

4) Owe money back on a federal student grant or have not made satisfactory arrangements to repay it; or

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

STUDENT FINANCIAL SERVICES POLICIES

Student Rights and Responsibilities

As a student at CSU-Pueblo you have the right to:

- Know all the types of financial assistance available to our students, including federal, state, and institutional sources.
- Be informed about any award changes and their reasons.

As a student at CSU-Pueblo you have the responsibility to:

- Accurately and honestly complete the **Free Application for Federal Student Aid** (FAFSA) or the Renewal for Federal Student Aid.
- Notify Student Financial Services of all changes in your enrollment status, for example, from full-time to less than full-time, from nonresident to resident tuition, etc.
- Use financial aid funds for educational expenses only. These expenses include tuition, fees, room, board, books, supplies, and related miscellaneous costs.
- Keep your address updated with the **Office of Student Financial Services**.
- Notify our office if you are attending two schools at the same time. You may not receive financial aid at two schools at the same time.
- Read and understand the Satisfactory Academic Progress Policy, the Withdrawal Policy, and other general policies related to financial aid.
- Officially withdraw from the University if you are unable to attend classes.
- Report all scholarships that you receive. They are counted as part of your financial aid award offer and may reduce the amount of other aid offered.
- Pay any balance to the University that is not covered by financial aid funds.

SATISFACTORY ACADEMIC PROGRESS POLICY

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

The Office of Student Financial Services will review satisfactory academic progress annually at the end of spring semester. Fall, spring, and summer semesters are included in the review.

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

I. Credit Hours Earned:

The following table indicates the number of hours that a student must earn per academic year with passing grades of S, D-, or better.

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

II. Cumulative Credit Hours Limit:

Students may earn a maximum number of credit hours while pursuing a degree. Students will be

allowed to earn a maximum of **150%** of the number of hours required by the degree-granting program. Maximum credit hour limits for each type of degree-granting program are as follows:

Type of Program	Maximum Credit Hrs
1st Bachelor's Degree	180
2nd Bachelor's Degree or Teacher Certification	48
Graduate Programs	45

Please Note: Maximum credit hours earned include hours transferred from other institutions and hours earned during a period of academic renewal.

III. Cumulative Grade Point Average (GPA):

Undergraduate Students

Students enrolled in undergraduate programs must maintain a cumulative GPA of 2.00.

Degree Plus Students

Students enrolled in a second undergraduate degree program or a teacher certification program must maintain a cumulative GPA of 2.00.

Graduate Students

Students enrolled in a graduate program must maintain a cumulative GPA of 3.00.

IV. Program Interruption, Failing Grades and Incompletes:

A student must not have 1) totally withdrawn from the University or 2) been administratively withdrawn from the University or 3) received all failing grades in any semester to maintain eligibility for financial assistance.

Students who receive incomplete grades are expected to complete the coursework by the end of the following term.

FINANCIAL AID SUSPENSION

By failing to comply with the satisfactory academic progress policy of the University, a student will be placed on suspension and is ineligible to receive any financial assistance until the student submits a letter of appeal and is approved by the Financial Aid Suspension Appeals Committee. 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

Satisfactory Academic Progress is reviewed at the end of each spring semester. Students who do not meet the minimum requirements will be placed on suspension and will immediately lose financial aid eligibility for fall, spring, and summer semesters. A student placed on suspension will remain on suspension until an appeal for reinstatement has been submitted and approved by the Financial Aid Suspension Appeals Committee.

Appeal Process

If extenuating circumstances exist, an appeal may be submitted. **The committee will review the appeal and their decision is final.** Appeals may be submitted through the end of the drop/add period for each term. Appeals submitted after the deadline will not be considered until the following semester. Appeals will be mailed to students at time of suspension and can also be picked up in the Office of Student Financial Services.

WITHDRAWAL POLICY

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

Students who totally withdraw from CSU-Pueblo after the drop/add period through 60% of the semester will have their tuition prorated (view tuition refund policy on-line at (www.colostate-pueblo.edu/sfs/TuitionFees.). A federal formula will be used to determine the amount of financial aid that has been earned by the student, which will be calculated for students who withdraw within 60% of the semester. If the student received less assistance than the amount earned, the student may be able to receive those funds. If the student received more assistance than earned, the excess funds must be returned.

Students who do not complete the official withdrawal process will potentially receive all failing grades on their transcript. Students with all failing grades at the end of each semester will be required to repay their unearned student aid based on 50% unless they can prove that they attended class past 60% of the semester.

FINANCIAL AID PROGRAMS

GRANTS

Federal Pell Grant

A Federal Pell Grant does not have to be repaid. The amount is determined by the Expected Family Contribution (EFC) listed on the Student Aid Report and whether the student is enrolled full-time or part-time. Generally, Pell Grants are awarded only to undergraduate students. In some cases, students might receive a Pell Grant for attending a post-baccalaureate teacher certificate program.

Colorado Student Grant (CSG)

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

Federal Supplemental Education Opportunity Grant (FSEOG)

The FSEOG is designed to assist undergraduate students with exceptional need, targeted to Federal Pell Grant recipients and other exceptional need students. Awards may not exceed $4,000 per year.

Colorado Leveraging Educational Assistance Partnership (CLEAP)

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

WORK-STUDY

College Work-Study Program (CWSP)

The College Work Study Program is designed to provide jobs to students who could not attend the University without employment. The program also provides students with meaningful work experience, preferably related to their academic major. Students may use work-study funds to supplement their income and help meet educational expenses. The program is funded by both the federal government and the Colorado General Assembly. The University annually employs approximately 600 students in the work-study program.

General Qualifications:

1) Must be enrolled at the University for the next academic year as a degree-seeking student;

2) Must be making satisfactory academic progress;

3) Must enroll in and maintain six (6) credit hours for each semester employed.

Colorado Work-Study

The Colorado work-study program is funded by the Colorado General Assembly. To be eligible, students must be undergraduate Colorado residents.

Students must complete the Free Application for Federal Student Aid (FAFSA) to determine eligibility for work-study. Students are selected for the program if qualifications are met and if funds are available. Generally students must demonstrate financial need, but the University is allowed to award a portion of the Colorado work-study funds to students who have little or no financial need.

Federal Work Study

The federal work-study program is funded by the federal government. To be eligible, students must demonstrate financial need.

Students must complete the Free Application for Federal Student Aid (FAFSA) to determine eligibility for work-study. Students are selected for the program if qualifications are met and if funds are available. Students may work on or off-campus and may be enrolled in undergraduate and graduate programs.

Full-Time Summer Work Study

Full-time work-study is a program designed to provide students with employment during the summer. The award is considered part of the annual financial aid award offer. Continuing and new students must be enrolled for the following fall semester. New students may not begin working until June 1.

Students are not required to enroll for summer courses to qualify for full-time summer work-study. However, students who are not enrolled in at least three (3) credit hours must contribute to the Student Employee Retirement Plan (7.50%) and Medicare (1.45%) for each pay period.

STUDENT LOANS

Prior to any federal education loan (Federal Stafford or Federal PLUS) being certified by CSU-Pueblo, 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%) loan to help exceptionally needy students pay for post-secondary education. CSU-Pueblo must disclose the loan disbursement and default status to a credit bureau organization.

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

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

Repayment of the loan begins nine months after students cease to be enrolled half-time. Students may be allowed up to 10 years to repay the loan. The amount of payment depends upon the size of the debt and the length of your repayment period.

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 University's Perkins Loan Servicer, UNISA, at (800) 875-8910.

Federal Stafford Loans

The U.S. Department of Education administers several loan programs designed to offer low-interest funding to students and their parents who need to borrow money to cover the costs of education. Below is a summary of the loans available:

Federal Family Education Loan (FFEL) Program

Stafford Loans

Stafford loans are either subsidized or unsubsidized. A **subsidized** loan is awarded on the basis of financial need. The federal government pays the interest while the student is in school and during grace and deferment periods.

An **unsubsidized** loan is not awarded on the basis of need. You'll be charged interest from the time the loan is disbursed until it's paid in full. If you allow the interest to accrue while you're in school or during other periods of nonpayment, it will be **capitalized** — that is, the interest will be added to the principal amount of your loan, and additional interest will be based on that higher amount.

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

Beginning July 1, 2006, the interest rate will be at a fixed rate of 6.8%. You'll be notified of interest rate changes throughout the life of your loans.

You'll pay a fee of up to 4% of the loan, deducted proportionately from each loan disbursement.

Annual Loan Limits for Stafford Loans

	Dependent Undergraduate Student	Independent Undergraduate Student
1st Year	$2,625	$6,625—Only $2,625 may be subsidized
2nd Year	$3,500	$7,500—Only $3,500 may be subsidized
3rd & 4th Years	$5,500	$10,500—Only $5,500 may be subsidized
Maximum Total Debt Allowed	$23,000	$46,000—Only $23,000 may be subsidized

*Graduate students may borrow up to $18,500 each academic year. Only $8,500 of this amount be subsidized.

Federal Stafford Loan Check Distribution

Loan funds are sent directly to the school approximately a week before the beginning of each semester. A 3% origination fee and up to 1% guarantee fee may be deducted from the amount sent to the school. All loans are made in two or more equal disbursements.

If you are a first year freshman, your first Stafford loan disbursement can't be made until the first 30 days of the semester has passed.

Electronic Funds Transfer is available to students whose loans are serviced by Sallie Mae or the College Access Network (CAN). Funds received will be credited to the student's account and any remaining funds will be electronically transferred to the student's designated checking account.

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

The school is required to disburse loan funds within three (3) working days. If the student is ineligible for disbursement the funds must be returned to the lender immediately.

Federal PLUS-Parent Loan for Dependent Students

PLUS Loans enable parents who do not have an adverse credit history to borrow to pay the education expenses of each child who is a dependent undergraduate student enrolled at least half-time. Beginning July, 1, 2006, the interest rate will be at a fixed rate of 8.5%. 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).

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.

Short-Term Loans

The Short-Term Loan is primarily requested to purchase books at the start of the semester. Financial emergencies that present extreme hardship may also be considered.

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 $450 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

State and Institutional Scholarships

CSU-Pueblo offers a wide variety of scholarships to incoming freshmen and transfer students. Scholarships are awarded based on achievement and financial need. Admissions and financial aid applications are reviewed by a University committee to determine recipients. Scholarships are also available for first generation students and international students.

Foundation Scholarships

The Office of Student Financial Services administers a number of private scholarships funded by individuals, foundations, agencies, and organizations. All CSU-Pueblo students may apply for these scholarships by submitting an institutional application by the February 1 deadline. Recipients are selected by various committees.

Students are also encouraged to visit www.colostate-pueblo.edu/sfs/scholarships for more information about scholarship searches or visit the **Office of Student Financial Services**, Admin 212.

Impact on Financial Aid

Because scholarships are considered "resource" funds under state and federal guidelines, scholarship awards become a part of the student's financial aid package. If the student's financial need is already met at the time of scholarship notification, other aid may be reduced or cancelled. Pell grants are never reduced as the result of a scholarship.

VETERAN EDUCATIONAL BENEFITS

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 Records Office in the Administration Building, Room 202, telephone, (719) 549-2910. Please allow at least two months for processing time.

BUREAU OF INDIAN AFFAIRS

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

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

Freshman Live-in Policy

All single, first year freshmen under the age of 21 with a home address more than 50 miles from campus, are required to live in the Belmont Residence Hall. The housing agreement is for the entire academic year. Students who live in the residence hall are required to have a meal plan. All questions regarding this policy should be directed to the Housing Office at (719) 549-2602.

Belmont Residence Hall

Belmont Residence Hall (BRH) houses nearly 500 students in three wings, which are joined by a large commons area. The commons area serves as a gathering area and has a large-screen television and a kitchen. The housing office and student mailroom are located adjacent to the area. The lower level of the commons area consists of a recreation area (including a court for volleyball and basketball), a weightlifting gym, study lounge, and laundry facilities. BRH also has a computer lab, tutoring lab, pool table, ping-pong table, vending machines, an ice machine, and many other amenities. The front desk is staffed 24-hours by student staff to answer questions and check out equipment.

All rooms are designed for two people, single occupancy is available on a very limited basis. Students can be placed on a single room waiting list based on the date in which the Housing Office receives their room reservation form and deposit. Rooms are approximately 12 feet by 13 feet in size. Each room contains two extra long twin beds, with drawer space below, two desks with a study lamp built into the desk, two bookshelves, and two desk chairs.

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

University Village at Walking Stick Student Apartment Housing

(In cooperation with Colorado State University-Pueblo)

University Village at Walking Stick, the Colorado State University-Pueblo on-campus apartment community for students, offers a unique housing opportunity for sophomores, juniors, and seniors. Students exempt from the BRH live-in requirement, including freshmen with a home address within 50 miles of Pueblo and those freshmen over 21 are also eligible to reside in the apartments.

These spacious two-story town homes offer an array of amenities and conveniences for students seeking the benefits of living at the heart of the CSU-Pueblo campus. The apartments were built for energy efficiency and feature energy saving appliances and features throughout.

The apartments offer campus High-Speed Internet access in each bedroom, a common area house phone, and premium cable TV in each bedroom and the commons. Each two-story apartment also features a dishwasher, refrigerator, range, and individual apartment controlled heating and air-conditioning. Two floor plans are available with 4 students living in each 4-bedroom, 2-bath town home.

The interior of each apartment offers a common area kitchen, dining and living room on the first floor and a common area study loft on the second floor. Each floor plan features two private locking bedrooms and a semi-private locking vanity and bathroom on each floor. Bedrooms range in size from 99 square feet to 124 square feet with large closets. A private phone is available at additional cost in each bedroom. An inviting patio also offers access to a storage room and another storage area is offered in the apartment home.

Each student at University Village has an individual housing contract with payment options to fit his or her academic funding situation. Academic year occupancy begins August 1st and extends through May offering an expanded period of living to accommodate student's specific needs. Full calendar year occupancy is always available and students in the apartments are not required to purchase a meal plan.

Study in the privacy of your own home and after class lounge on your patio, grill your dinner and enjoy the magnificent mountain views available at University Village. The student community also features a spacious and inviting clubhouse, on-site office with professional management staff, a student Assistant Director and two Community Advisors, a 24-hour

laundry facility, an outdoor basketball court, park benches, and restricted on-site parking.

University Village at Walking Stick at CSU-Pueblo is the *only wholly* student-centered apartment community in the City of Pueblo, built and designed with the student in mind. Discover why we think University Village is "The Students' Choice for On-Campus Apartment Living". Make it your choice! Join us at University Village at Walking Stick!

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

University Village at Walking Stick
4000 Walking Stick Boulevard
Pueblo, Co 81001
Phone: (719) 549-2860
Fax: (719) 549-2861
Email: walkingstick@colostate-pueblo.edu
Website: http://www.walkingstickatcsu-pueblo.com

Off-Campus Housing

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

Housing for Married Students

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

Contract Board Policies

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

FOOD SERVICE

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

Monday through Friday

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

Saturday and Sunday

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

La Cantina is located on the lower level of the Occhiato University Center and is open during Fall & Spring semesters while classes are in session. A convenience store is located in La Cantina.

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

The Pavilion Store is located just West of the Hasan School of Business. The store is operated by our food service vendor and serves as a "grab and go" type of food and drink station. The hours of operation are Monday through Friday, 8:00 a.m. - 1:30 p.m. They accept cash and fiesta cash.

The Starbucks Coffee Cart is located in the Library. The hours of operation are Monday through Friday, 8:00 a.m. - 2:00 p.m.

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

STUDENT LIFE PROGRAMS AND SERVICES

Counseling

The mission of the Counseling Center is to provide students with a means to more fully understand those issues that interfere with the effective functioning of their lives and to then support them as they make new or different choices. We are not here to "analyze" individuals or to give them advice. Rather it is our intent to act as guides for students who are attempting to live happier, more enjoyable, and productive lives.

Your visits with a counselor are confidential and the records of your counseling sessions are kept separate

from you academic records. There are some exceptions to confidentiality and they relate to those situations in which an individual describes behavior that indicates a potential for child abuse or threats to harm oneself or someone else.

The Counseling Center staff operates in a manner consistent with the concept that any client of the Center should be fully informed of their treatment options and should participate in decisions as to the nature of that treatment. We also work to honor and protect each individual's values, beliefs, and general orientation to life. We act in a manner that demonstrates respect for and supports an individual regardless of gender, sexual orientation, disability, age, or country of origin.

The Center's staff works with individuals whose concerns include stress, depression, loneliness, difficulty adjusting to college life, difficulty adjusting to life in America, suicidal thoughts, relationship violence, sexual assault, eating disorders, and marriage and family conflict to name a few. Crisis services are provided during regular business hours.

The Counseling Center also offers walk-in consultation, which is available to anyone who has a particular question about a mental health issue. This service is provided to help the student who has a question, who doesn't believe they need counseling, to talk to a counselor in order to get specific information related to their question.

The Counseling Center is a free service to all CSU-Pueblo students.

Experiential Learning Center

The Experiential Learning Center encompasses Outdoor Programs, Challenge Course, Rock Climbing and Intramural Sports. The Center is located in Room 006 of the Occhiato Center. Inquiries and questions can be made to (719) 549-2085 or email elc@colostate-pueblo.edu Everyone is encouraged and welcome to all of the activities offered by ELC.

Mission

- The Experiential Learning Center's mission is to provide the Colorado State University-Pueblo community with rewarding recreational experiences and leadership opportunities. Promote "hands-on" learning through experiential education.

Goals

- Utilize the natural environment and outdoor adventure activities to enhance the participant's educational experience.
- To increase self-awareness, self-understanding and personal responsibility.
- Design challenging learning environments to promote understanding, open communication, and team cohesiveness through small group experiences.
- Expand the participant's relationships, values, principles, and ethics through the development of community.
- Provide opportunities to gain leadership skills and self-competence through trainings and positions of responsibility.
- To cultivate a sense of place and connection with people in the University community.
- To foster a stewardship with the environment.

Services

The ELC operates year round and offers trips, educational seminars, sporting events, programs and has an equipment rental program. The types of activities include intramural sports, the indoor climbing wall, challenge course and outdoor program trips that range from one-day educational studies trips to extended programs and trips. Our programs are designed to provide recreational opportunities for the Colorado State University-Pueblo community.

ELC participants are offered a unique opportunity to attain an exuberant and challenging experience through living, learning, and leading in the out of doors. The ELC devotes its efforts to building individual and group confidence, solving problems, promoting social interaction and teamwork. It creates a culture of people within Colorado State University-Pueblo who rise over and beyond the challenges facing them.

Being a part of the ELC means living life to its fullest, gaining a lifetime's worth of education, and most importantly, having fun.

Outdoor Programs
(549-2085 or email elc@colostate-pueblo.edu)

For the past 13 years, the Outdoor Program (ODP) has been an important program for building the community at CSU-Pueblo. The activities offered through the program are open to students, faculty, staff, alumni and friends of the University. The Outdoor Program serves as a powerful group building experience that helps participants develop new friendships, learn lifelong wilderness skills, develop leadership, increase interpersonal skills and expand appreciation and concern for the environment.

The office of Outdoor Programs (ODP) offers trips designed to provide maximum access to outdoor activities at a reasonable cost. Four programs serve as the foundation of the ODP: Mountain Orientation which takes place in the Colorado Rockies right before school starts in the fall; Winter Orientation in January which is a backcountry ski trip into the huts of the Tenth Mountain trail; Desert Orientation during spring break in which students spend a week in the desert; and finally in May there is a Canyon Orientation where students travel to the canyon country of Utah. ODP also offers one-day and weekend mountaineering trips, climbs, bike rides, and of course ski ventures to many of Colorado's finest resorts.

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

Wilderness Education Association Leadership Program

An integral component of the ELC program at Colorado State University-Pueblo is our affiliated Wilderness Education Association (WEA) program. We utilize the eighteen-point curriculum of WEA in our academic courses as well as a framework with our recreation adventures. Students who participate in the ELC have the opportunity to be certified through the Wilderness Education Association as an outdoor leader. This process requires the student to go on at least five extended trips, be a Wilderness first Responder, lead at least two trips as a student leader, and they must take specific outdoor adventure education courses at CSU-Pueblo.

Challenge Course
(549-2023 or email elc@colostate-pueblo.edu)

Colorado State University-Pueblo's Challenge by Choice Adventure Course consists of a series of obstacles, known as elements, suspended from utility poles. The course is constructed with steel cables, ropes, and wood.

The course offers a challenging environment designed to promote cooperation and group problem-solving skills, as well as develop individual self-confidence. Programs are group centered and vary in degrees of difficulty, depending on each group's specific needs and goals. Physical prowess is not necessary for participation; however, teamwork is essential.

Participants are asked to take emotional, mental, and physical challenges which utilize a wide range of the group's resources. Light and agile group members play a critical role on some elements; however, size and strength are helpful on others. The analytical thinkers and supportive individuals often provide solutions to perplexing obstacles.

Our trained facilitators provide positive support and encouragement as participants explore their individual and group abilities. As they cooperate to accomplish common goals, individuals discover the value of trust, shared responsibility, and mutual support.

Our facilitators will design an experience based on your group's objectives. Your program will be a unique adventure with the potential to induce learning and behavior change on both an individual and group basis and we'll have fun!

Rock Climbing
(549-2091 or email elc@colostate-pueblo.edu)

The climbing wall at CSU-Pueblo is currently under construction. However, we are still climbing on!! Once a week, we are heading up to Colorado Springs to the Sport Climbing Center. The ride is free. All you have to do is sign up in the office located in the OUC, Room 006. The trips to the climbing wall and on the climbing trips are welcome to all skill levels.

Also, keep checking the calendar for all of our climbing trips.

Intramural Sports and Recreation
(549-2665 or email elc@colostate-pueblo.edu)

The University community has an opportunity to participate in sport leagues and special events through the Intramural Program in an organized environment.

Providing regularly scheduled recreational activities with student interests in mind, the ELC's Intramural Program emphasizes: recreation, health, wellness, teamwork, leadership, sportsmanship, social interaction, as well as cultural and gender sensitivity.

Some of the activities offered include: flag football, soccer, basketball, volleyball, table tennis, chess, checkers and video games.

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 CSU-Pueblo community and of the college culture through the promotion of healthy lifestyle choices. Its mission statement is to create an environment on campus that promotes healthy lifestyle choices for health and 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 interpersonal 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. Participants of the LEAD Program are required to live in the Belmont Residence Hall and enroll in the LEAD academic courses (US 151 and US 252). Participants will receive a $750 room waiver/scholarship per semester for as long as they live in the residence hall and successfully complete the LEAD Program requirements. For more information about this program, please contact the Office of Student Life at (719) 549-2586.

Non-Traditional Students Services (NSS)

Non-Traditional Student Services is an informal social and educational environment for non-traditional students where they can become aware of the services and programs of the University and local community. The NSS staff plans programs and activities for the CSU-Pueblo community. Past programs include the Annual Halloween Carnival, Holiday Food Basket Distribution, Personal Development Workshops, and Family Fun Days. Non-Traditional Student Services staff are located in the Office of Student Activities in the Occhiato University Center, Room 002.

Special Events Committee

In 1999, the CSU-Pueblo Concert Committee was formed by a referendum enacted by the student body, which proposed a concert fee in order to bring nationally recognized musical talent to the campus of CSU-Pueblo. The fee was established to aid in retention efforts of the University and to enhance the quality of campus life. In the spring of 2001, the fee was changed to a permanent fee and renamed the Special Events Fee.

The Special Events Fee brings nationally recognized speakers, musical talent and performing arts events to the campus of CSU-Pueblo. In addition, the fee may be used to fund special events as designated by the Special Events Committee. Artists/performers sponsored by the committee include: Jimmy Eat World, Taking Back Sunday, Nelly, Sum 41, Eve 6, Busta Rhymes, The Toasters, Dr. Maya Angelou, Second City Comedy Club, Madrigal Dinner, and many more. For more information, contact the Office of Student Activities at (719) 549-2151.

Student Health Services

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

Students are encouraged to visit the health clinic whenever necessary. The licensed professional staff of Student Health Services consists of nurse practitioners, a consulting MD as well as an RN. Patients are seen by appointment. Walk-ins are welcome and will be seen at the first available time. Student Health Services is in the back courtyard of the Occhiato University Center (to the left of the cafeteria exit). Office: (719) 549-2830; FAX 719-549-2646.

Student Activities Board

The Student Activities Board (SAB) is located in the lower level of the Occhiato University Center, Room 002. The mission of the Student Activities Board is to enhance the educational experience of students by creating an atmosphere, which promotes educational

stimulation, cross-cultural awareness, interpersonal skills building, leadership development, entertainment, and fun.

Throughout the academic year, the Student Activities Board promotes events that motivate, challenge, and encourage divergent thinking through activities and events that are free for all CSU-Pueblo students. SAB's popular weekly event series, *the NOISE!*, brings events such as comedians, cultural heritage dinners, movies, magicians, karaoke, sideshow freaks, and the ever-popular casino night! The Student Activities Board hopes to provide opportunities for students to get involved on campus. SAB also hopes to provide an atmosphere where students can develop culturally, cognitively, and socially through a diverse series of events and activities. Contact (719) 549-2151.

Associated Students' Government (ASG)

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

ASG functions through three branches of government: Legislative, Executive and Judicial. The Legislative branch, the ASG Senate, is composed of 15 senators elected from the student body. It is presided over by the Vice President of Legislative Affairs. The Executive branch consists of the President and the Vice President of Finance and Administration. The Judicial branch is composed of five justices, one of whom is designated the chief justice. The senate meets weekly. Contact (719) 549-2866.

Clubs

CSU-Pueblo 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 (ASG) Office and complete and return the forms to ASG.

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.

Accounting Club
Alpha Lambda Delta
Alpha Sigma Alpha (Sorority)
Ambassadors Club
American Choral Directors Association
American Society of Mechanical Engineers (ASME)
Automotive Booster Club
Campus Crusade for Christ
Catholic Student Union
Chemistry Club
College Republicans
Colorado International Student Association
English Club
Fellowship of Christian Athletes
Hungry Eye Literary Club
Ice Hockey
Institute of Electrical and Electronics Engineers (IEEE)
International Facility Management Association (IFMA)
Investment Society
Kappa Sigma Fraternity
Lambda Chi Alpha Fraternity
Society of Mexican/American Engineers & Scientist (MAES)
Movimiento Estudiantil Chicano de Aztlan (MEChA)
Omicron Delta Gamma (Veteran's Fraternity)
Past Masters History Club
Phi Alpha Zeta Delta
Physical Activities Club
Political Science
Psi Chi
Psychology Club
Racquetball Club
Residence Hall Association (RHA)
Rodeo Club
Rugby Team
Sailing Club
Shooting Club
Sigma Tau Delta
Sign Language Club
Society for Human Resource Management
Southern Colorado Association of Nursing Student (SCANS)
Student Advisors at Walking Stick (SAWS)
Student Alumni Association
Student Athletes Advisory Committee
Student Social Work Organization
Students in Free Enterprise (SIFE)
Tau Alpha Phi
Teacher Education Association
T-Wolf Spirit Squad

United Campus Ministries
Unmasked Players
Wrestling Club

ATHLETICS

CSU-Pueblo views participation in intercollegiate athletics as a beneficial and worthwhile experience as a part of the collegiate and educational career. Athletics contribute significantly to student life at CSU-Pueblo and to the development of tradition.

CSU-Pueblo is a member of the NCAA Division II and the Rocky Mountain Athletic Conference. Currently twelve sports are sponsored including: women's volleyball, women's basketball, women's cross country, women's softball, men's and women's soccer, men's basketball, baseball, men's and women's golf and men's and women's tennis. Students are encouraged to participate either as an athlete, team manager, athletic department intern, or student athletic trainer.

MASSARI ARENA AND SAM JONES SPORTS CENTER

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

RAWLINGS OUTDOOR SPORTS COMPLEX

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

STUDENT CONDUCT

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

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

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

STUDENT CODE OF CONDUCT

Members of the Colorado State University-Pueblo 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. CSU-Pueblo 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, CSU-Pueblo 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) Bias related incidents, acts of bigotry, harassment, or intimidation directed at a member or group based on national origin ethnicity, race, age, religion, gender, sexual orientation, disability, veteran status, color, creed, or marital status.

13) Dishonesty, such as cheating, plagiarism, misrepresenting oneself or facts or knowingly furnishing false information to any person or agency within the University community;

14) 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;

15) Forgery, alterations or misuse of any University documents, records, of instruments of identification with intent to defraud or mislead;

16) Tampering with the election of any University-recognized student organization;

17) Violation of University traffic or parking regulations;

18) Intentional obstruction or disruptions or inciting others to obstruct or disrupt teaching, meetings, research, administration, disciplinary proceedings or other authorized University activities;

19) Obstruction of the free flow of pedestrian or vehicular traffic on University premises or at University-sponsored or supervised functions;

20) Possessing or using illegal or unauthorized firearms, explosives, dangerous chemicals, or other weapons on University-owned or controlled property;

21) 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;

22) 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;

23) 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 Student Code of Conduct;

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

24) Failure to meet financial obligations to the University;

25) Tampering with fire equipment in any manner;

26) Any violation of the University's electronic communication policy;

27) Any violation of the safety requirements for food sales by student groups;

28) Any action which would violate the CSU-Pueblo policy on demonstrations and mass gatherings;

29) Stalking—to follow or harass repeatedly another person so as to put that person in fear for their safety; and

30) Causing or attempting to cause bodily injury or harm to oneself.

GROUP OFFENSES

1) Societies, clubs, or similar organized groups in, or recognized by the University are subject to the same CSU-Pueblo Student Code 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 CSU-Pueblo Student Code 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 Pueblo County Sheriff's Office located at the Colorado State University-Pueblo campus is charged with the responsibility of maintaining law and order at Colorado State University-Pueblo 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 CSU-Pueblo officials is not tolerated. An offense requiring police action may also be treated internally as a University disciplinary matter. A full document detailing police policies and statistics is available from the police upon request. Contact (719) 549-2373.

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

Colorado State University-Pueblo'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 1974 (FERPA), or the Buckley Amendment. For specific details, contact the Records Office, Administration Building, Room 202.

ACADEMIC DISHONESTY

Academic dishonesty is any form of cheating which results in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own.

In cases of academic dishonesty, the instructor will inform the chair of the department prior to implementation of punitive action. Academic dishonesty is grounds for disciplinary action by both the instructor and the Dean of Student Life. Any student judged to have engaged in academic dishonesty may receive a failing grade for the work in question, a failing grade for the course, or any other lesser penalty which the instructor finds appropriate.

To dispute an accusation of academic dishonesty, the student should first consult with the instructor. If the dispute remains unresolved, the student may then state their case to the department chair (or the dean if the department chair is the instructor of the course).

Academic dishonesty is a behavioral issue, not an issue of academic performance. As such, it is considered an act of misconduct and is also subject to the University disciplinary process as defined in the CSU-Pueblo Student Code of Conduct Policies and Procedures Manual. Whether or not punitive action has been implemented by the faculty, a report of the infraction should be submitted to the Dean of Student Life who may initiate additional disciplinary action. A student may appeal a grade through the Academic Appeals Board. The Dean of Student Life's decision may be appealed through the process outlined in the Student Code of Conduct Policies and Procedures Manual.

What Are Specific Acts of Academic Dishonesty?

The following acts of misconduct are acts of academic dishonesty:

1) Cheating—intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.

2) Fabrication—intentional and unauthorized falsification or invention of any information or citation in an academic exercise.

3) Facilitating Academic Dishonesty—intentionally or knowingly helping or attempting to help another to violate a provision of the institutional code of academic integrity.

4) Plagiarism—the deliberate adoption or reproduction of ideas, words, or statements of another person as one's own without acknowledgment.

5) Unauthorized Collaboration—intentionally sharing information or working together in an academic exercise when such actions are not approved by the course instructor.

This is not meant to be an exhaustive list of all acts of academic dishonesty, but it is a guide to help faculty and students understand what constitutes academic dishonesty.

CLASSROOM BEHAVIOR

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

CATALOG REQUIREMENTS

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

TIME LIMITATION ON CREDIT

Any college credit, including general education courses, 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 appropriate department chair.

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.

Guest

A guest student is defined as one who wishes to enroll in courses without degree-seeking status. Additional information on non-degree students is contained in the *Admission* section of this catalog.

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 Records Office.

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. Students registered for 12 or more semester credit hours are considered full-time. However, it should be noted that in order to complete an undergraduate program in four years, students must earn a minimum of 15 credits each semester. 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
Graduate Program	
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
Graduate Program	
Full-time	6 or more credits
Half-time	3-5 credits
Less than half-time	Below 3 credits

Contact the Records Office for certification of enrollment status, level (class), grade point average and

term(s) of attendance. (Please note that the above schedule for enrollment status may differ from the full-time/part-time schedule as recognized by the financial services area.)

GRADES AND THE GRADING SYSTEM

Awarding of Grades

Grades are earned by students and awarded by faculty. Two signatures are required to successfully complete a faculty initiated student grade change. Since the faculty member is solely responsible for affecting a grade change, the Faculty signature is required. The second signature will be that of the Department Chair. In the event that the Department Chair is the instructor of the course, the second signature will be that of the Dean.

The Grading System

The quality of a student's work is appraised according to letter grades and grade point averages. The grading system of Colorado State University-Pueblo includes the following grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, S, U, IN, W, WN, NC, IP. Faculty use of +/- grading is optional. Course instructors should indicate on the course syllabus and/or policy statement the grading system used in the course.

Grade		Grade Points per Credit
A	(Excellent)	4.00
A-		3.67
B+		3.33
B	(Good)	3.00
B-		2.67
C+		2.33
C	(Satisfactory)	2.00
C-		1.67
D+		1.33
D	(Poor)	1.00
D-		0.67
F	(Failure)	0.00
S	(Satisfactory)	*
U	(Unsatisfactory)	**
IN	(Incomplete)	**
W	(Withdrawal)	**
WN	(Administrative Withdrawal) or Nonpayment	**
NC	(No Credit—Audit)	**
IP	(In Progress)	**

* Credits not used to compute the grade-point average but counted toward graduation, excluding remedial courses.

** Credits not used to compute grade-point average and not counted toward graduation.

Although grades of C-, D+, D, and D- are passing, they do not constitute satisfactory grades. Many departments do not permit these grades to count toward fulfillment of their requirements, even though the hours may be counted toward graduation requirements. Such grades from other institutions are not accepted in transfer except as specified under *Transfer of Credit* in the *Admission* section of this catalog.

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 may be counted toward graduation requirements. D grades from other institutions are not accepted in transfer except as specified under *Transfer of Credit* in the *Admission* section of this catalog.)

F Counted as a course attempted; does not constitute a passing grade nor does it satisfy major or institutional requirements.

S Available only in certain approved courses.

U Available only in certain approved courses.

W This grade is given under two conditions: 1) when a student withdraws from a course prior to the end of the regular withdrawal period; 2) when a student withdraws totally from the University after the initial drop period.

IN The grade of IN is recorded at the end of the semester when a student is granted an extension of time to complete course work which could not be completed for reasons beyond the student's control. It is given solely at the discretion of the instructor and is not to be used to grant the student additional time to complete assigned course work due to poor time management. The student must be receiving a passing grade at the time an IN agreement is made, which may be no earlier than the end of the withdrawal period. The IN agreement consists of a plan for the completion of the course work and must designate the student's existing grade in the course and the work to be completed for the IN to be removed. It must be in writing, signed by the instructor and the student, and placed on file in the Department office. An incomplete course must be satisfactorily completed within the time frame stipulated by the instructor but no later

than one calendar year from the date the IN was given. An incomplete not removed within one calendar year shall revert to the pre-assigned grade and be included in the computation of the student's grade point average. Re-enrollment is not allowed while the IN is still outstanding.

IP 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.

Grade-Point Average Computation

Earned grade points are computed by multiplying the point value of A, A-, B+, B, B-, C+, C, C-, D+, D, 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 total grade points earned by total credit hours attempted. A student's cumulative GPA is calculated by dividing all grade points earned by all credit hours attempted. Earned grades of S, U, W, WN, IP, IN and NC are not computed in the grade-point average. **For purposes of computing a student's grade-point average only CSU-Pueblo hours are used.**

Grade Change Policy/Academic Appeals

Students have the right to appeal any academic decision, including the assignment of final grades. A grade-change request should be extremely rare. It is not appropriate to change a grade because the student submitted additional work.

Before making an appeal, the student must discuss the situation with the instructor(s) involved in the decision. If a grade change is approved by the instructor(s) on the basis of this discussion, the instructor(s) will complete and submit a grade change form, which must be approved by the department chair and the dean.

If a grade change is not approved by the instructor(s), the student may appeal the instructor(s') grading decision based upon one or more of the following four grounds. The burden of proof rests with the student to demonstrate that the grading decision was made on the basis of any of these following conditions:

1) An instructor(s) made an error in calculating the original grade or a similar occurrence.

2) A grading decision was made on some basis other than performance and other than as a penalty for academic dishonesty.

3) A grading decision was based on standards unreasonably different from those that were applied to other students.

4) A grading decision was based on a substantial, unreasonable, or unannounced departure from previously articulated standards.

The student must submit a written grade appeal to the department chairperson. The written document must set forth the basis for the appeal, identifying at least one of the four categories set forth above. The request must be submitted, or postmarked if mailed, no later than 20 working days after the first day of classes of the next regular semester following the date the grade was recorded. If no appeal is received before the deadline, the grade will be considered final. It is strongly recommended that the student meet with the department chairperson within 10 working days after submission of the appeal to discuss the appeal process. The department chairperson, the dean, or any administrative official is prohibited from making a decision concerning the grade change appeal.

Within 20 working days of receipt of the written request for an appeal, the chairperson must provide a copy of the student's appeal to the instructor(s) who assigned the grade, the dean, and the Academic Appeals Board unless the appeal has been withdrawn. The instructor(s) must write a response to the Academic Appeals Board within 10 working days of receipt of the appeal. If the written request for an appeal is received prior to or during the summer session, when the instructor(s) who assigned the grade may not be available, the chairperson must provide copies to the faculty member and the Appeals Board no later than 20 working days from the beginning of the following fall semester.

The Academic Appeals Board will review the written appeal and response of the instructor(s). The Board may elect to separately interview both the student and the instructor(s) before rendering a decision. The decision of the Academic Appeals Board will be based upon whether one or more of the conditions for an appeal set forth above have been met. At the conclusion of the deliberations, the Board will render one of the following decisions:

1) The original grading decision is upheld.

2) The Academic Appeals Board will re-evaluate the student's achievement of the instructional

objectives of the course and assign a grade accordingly.

The Academic Appeals Board decision is the final decision of the University. Within 20 working days of reaching the decision, the Academic Appeals Board will provide written summaries of the hearing and decision, together with a rationale for that decision, to the student, the instructor(s) who assigned the grade, and the academic department of the instructor(s). Should the appeal result in a grade change, the Chair of the Academic Appeals Board will submit a grade change form to the Records Office.

DEANS' LIST

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

- Achieve a minimum semester grade-point average of 3.500
- Be degree-seeking
- Earn at least 12 credit hours at Colorado State University-Pueblo, and
- Receive no grade of "incomplete"

The Deans' List is generated and published fall and spring semesters.

GOOD ACADEMIC STANDING

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

ACADEMIC PROBATION

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

Academic Probation status is noted on the transcript. In addition, students receive a letter (Notification of Academic Probation Status) from the Student Academic Services Office. At this point, **students are strongly encouraged to develop an Academic Improvement Plan (AIP)** in collaboration with staff from the CSU-Pueblo Student Academic Services Office.

Students on Academic Probation will have two terms (excluding summer) to raise their grade-point average to a 2.000.

ACADEMIC SUSPENSION

Students who fail to clear Academic Probation after two regular terms (excluding summer) will be placed on Academic Suspension.

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

Students placed on Academic Suspension who successfully appeal their suspension can return to the University on a Conditional Reinstatement.

Students 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 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. Please see the *Catalog Requirement* section for more information.

Appeal Process for Academic Suspension

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

The deadlines for Appeal Letters requesting Conditional Reinstatement are:

- Subsequent fall semester—the 2nd Monday in June
- Subsequent spring semester—the 1st Wednesday of January

Failure to submit Appeal Letters within this prescribed time line will result 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.

1) 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.

2) 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.

3) 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 CSU-Pueblo. 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.

4) 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 AND OVERLOADS

Enrollment in more than 18 credit hours in a given semester is defined as an overload. Both resident and extended studies (continuing education) courses are counted in the credit-hour total.

Students who have earned 15 or more semester credit hours and have a grade-point average of 3.000 or greater are eligible to enroll for an overload.

Overloads must be authorized by student's faculty advisor and department chair (or dean if the advisor is the department chair). Both signatures are required. Appeals may be made to the dean of the college of the student's major. **Under no circumstances may a student enroll for more than a total of 25 semester credit hours in a single semester.**

CREDIT BY EXAMINATION

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

1) Advanced Placement

Colorado State University-Pueblo 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.

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

2) College Level Examination Program

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

3) International Baccalaureate Diploma Program

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

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

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

4) Credit by Examination (In-house subject area exams)

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

If a student is successful in challenging a course, the title of the course, credit hours and notation of credit by examination will be recorded on the student's permanent record/transcript. (Unsuccessful attempts are not recorded on the transcript.) The credit hours earned by examination do NOT count in the student's load for the semester 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 from the Records Office.

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 CSU-Pueblo, 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 enrolled at CSU-Pueblo and in good academic standing at the time the examination is administered;
- The student does not use the challenged course to satisfy the residency requirement for graduation; and
- The student satisfies any and all additional criteria as specified by the department.

5) General Education Test-Out Policy (In-House)

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

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

General education test-out examinations are free of charge.

FINAL EXAMINATIONS

Final examinations are not to be scheduled at times other than those published in the semester notes and on-line. 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. Records are retained by the faculty member's department for one year. They are treated in confidence by the faculty member and chair of the department.

REPEATING COURSES

An undergraduate student who has received a low grade in a course at CSU-Pueblo can improve her/his cumulative grade point average by repeating that course at CSU-Pueblo and earning a higher grade. The first two times a course is taken, 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 from the Records Office. The previously attempted courses and grades remain in the academic record but are not computed in the overall grade-point average. However, if a student elects to repeat a course more than two times, the third grade and all grades earned thereafter will be computed in the grade-point average.

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

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

CLASS SCHEDULE CHANGES

Students are encouraged to secure advisor 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 may be processed through the Records Office or through the Web Registration System.

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 Notes and on-line without a record of the dropped course appearing on the student's permanent record. Courses may be dropped officially through the Records Office or processed through the Web Registration System. Short or mini-courses may be dropped in the same manner before 15 percent of the course duration has passed. Please refer to the following table:

LENGTH OF CLASS (Weeks)	END OF DROP PERIOD (Days)	LAST DATE (W) (Weeks)
15	11	9
14	11	8
13	10	8
12	9	7
11	8	7
10	8	6
9	7	5
8	6	5
7	5	4
6	5	4
5	4	3
4	3	2
3	2	2
2	2	1
1	1	0.6

WITHDRAWAL FROM A COURSE

Immediately following the end of the drop/add period, students may withdraw from a course according to the policies below.

When a student withdraws from a course before 60 percent of the course duration has passed, a grade of "W" (withdrawal) will be recorded on the academic record. After 60 percent of the course duration has passed, a student may not withdraw. Tuition and fees will not be adjusted for course withdrawals during this withdrawal period. **Course withdrawals must be processed in the Records Office.**

FACULTY INITIATED STUDENT WITHDRAWAL

Under certain specific circumstances, a faculty member may withdraw a student from a course. The circumstances are either A or B below.

(A) Faculty may withdraw a student from a course for nonattendance if the student has never attended class through the end of the drop/add period. The course will be removed from the student's transcript and no grade will be issued. Withdrawal forms must be received by the Records Office by 5:00 pm on the last day of the drop/add period.

(B) Faculty may withdraw a student for a designated number of absences or for any other reason as stated in the course syllabus with the student's signature acknowledging the withdrawal on the course withdrawal form. In the event that faculty efforts to contact a student concerning the withdrawal are unsuccessful, the signature of the department chair (or Dean if the Department Chair is the teacher of the course) acknowledging the withdrawal may be substituted for the student signature. The student will receive a W for the course. Exceptions to the requirement of a student or department chair signature may be granted to programs by the Provost.

If a faculty member chooses to incorporate this policy, it must be stated in the course syllabus. The criteria to be met by the student which would trigger a Faculty Initiated Withdrawal of the student from the course must be stated in the policy. The criteria will also include the method by which the student will be informed by the faculty member of the impending withdrawal. As with the Student Initiated Withdrawal Policy, faculty may not initiate a student withdrawal after the official course withdrawal period has ended.

WITHDRAWAL FROM THE UNIVERSITY

Up until the drop/add period expires, students may cancel their course schedules without charge using our web registration system or at the Records Office.

After the end of the drop/add period, students who are planning to withdraw from *all* courses and leave the University for any reason **must** file a withdrawal form with the Student Academic Services Office (P-232) prior to departure. Total 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. Unless the total withdrawal procedure is followed, students are not eligible for an adjustment (if appropriate) of tuition and fees and will receive failing grades in all courses.

Retroactive Withdrawal

Undergraduate students may request that all grades in previous semesters 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 to the Associate Director of Records. Appropriate documentation should include direct information from a professional who can attest to the student's claim of illness or legal issues and speak clearly to the difficulty that was encountered by the student. If a student chooses not to share such information, the Student Academic Appeals Board should decide the case based on the information available.

Retroactive withdrawal applies to every course for a particular term and not for selective courses during a term.

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.

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, 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 veteran's class schedules under Veterans Administration Regulation 14265.

Credit for Life Experience

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

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

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

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

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

The maximum number of credit hours allowed for life experiences is six. Any amount over six must be approved and justified by the appropriate dean to the provost. Credit for life experiences is granted only for experience gained within 12-years from 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.

CHANGE OF MAJOR

All changes of major must be made through the Records Office with the approval of the appropriate advisor/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 withdraw students for non-attendance.

TRANSCRIPTS OF CREDIT

Official transcripts are issued by the Records Office at the **written and signed** request of the student. There is a non-refundable fee for each official transcript.

Check with the Records Office for current fees. 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 Colorado State University-Pueblo 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 Records Office. Students should allow extra time for issuance near the end of semester. Due to the processing of grades, transcripts (official or unofficial) for enrolled students will not be released during the week of finals and the following week. Official transcripts on file from other institutions cannot be relinquished. CSU-Pueblo does not accept e-mail or telephone transcript requests.

Faxing of Transcripts

A pre-paid $10 fee is required for an unofficial 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 CSU-Pueblo
- Instructions on whether the current semester grades or degree conferral; 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 CSU-Pueblo 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 of Transcripts

- 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 PLANNING SHEETS

Graduation Planning Sheets for the summer session and fall semester are due no later than the third week of the spring semester prior to the graduating term.

Graduation Planning Sheets for the spring semester are due no later than the third week of the fall semester prior to the graduating term.

Students unable to complete degree requirements will be required to submit an amended Graduation Planning Sheet or a graduation update to the Records Office in order to establish a new tentative degree conferral date.

GRADUATION LIST

The official graduation list is prepared each term by the Records Office 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 exercises take place once a year, at the end of spring semester. Students eligible to participate include those who completed graduation requirements in the preceding fall semester, as well as those who are scheduled to complete requirements in the spring semester or those who are scheduled to complete requirements in the summer session following commencement. Candidates must appear in official academic regalia at commencement exercises.

Utilizing data from official deadlines, the information for the commencement program is finalized near mid March — changes, modifications, or updates received after that time may not be included.

The commencement program is not an official list of confirmed graduates or honors awarded. A final audit will determine degree conferral and academic accords

GRADUATION WITH HONORS

There are three levels of University (baccalaureate degree only) scholastic honors at graduation: *summa cum laude*, *magna cum laude* and *cum laude*. A minimum of 60 semester credits must be earned at CSU-Pueblo for a student to be considered for these honors. Remedial courses, credit within Academic Renewal, and credit by examination cannot be included in the 60 semester credits.

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.

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 and hours earned in residence, will be noted on the student's diploma and transcript.

CLASS RANK

CSU-Pueblo does not maintain or provide class rank information.

DIPLOMAS

Diplomas are dated and awarded to graduating students each semester (fall, spring and summer) upon graduation clearance of each student. The spring commencement date and the last day of the summer and fall 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 ten to twelve weeks after the end of the term in which the degree is conferred. Replacement diplomas may be issued upon a request from the original holder who certifies to the loss or damage of the original document. Please check with the Records Office for current diploma replacement fees.

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 (Records Office, Administration Building, Room 202) in writing that 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

- Full or part-time status
- 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 advisor before registering for classes. The major area assigns academic advisors. Academic advising for degree seeking students who have not selected a major and unclassified students will be handled by Academic Advising located in Student Academic Services, Room 232 of the Psychology Building.

Registration Procedures

Details on registration procedures are published in the Semester Notes on the Web Registration System or on our website at www.colostate-pueblo.edu/records 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 Semester Notes on-line. For specific information about tuition and fees visit www.colostate-pueblo.edu/sfs. Contact the Office of Student 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 Records Office or changed on-line through PAWS.

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, Colorado State University-Pueblo, Pueblo, Colorado 81001-4901 or fax records to (719) 549-2646.

Booster vaccinations are provided by Student Health Services if immunization 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 a major. 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 Records Office no later than the third week of the term prior to the graduating term.

INSTITUTIONAL REQUIREMENTS FOR ALL BACCALAUREATE DEGREES

1) Students must successfully complete a minimum of 120 semester hours of credit with an earned grade point average of 2.000 for all CSU-Pueblo 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, RDG 099).

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

3) A minimum of 60 semester hours must be earned from a four-year institution. Of these, a minimum of 30 semester hours of credit (as stated in the program of the major) must be earned in residence (courses taken from Colorado State University-Pueblo) 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, CSU-Pueblo accepts a maximum of 60 semester hours from community or junior colleges.

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

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

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

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

9) Students must successfully complete the requirements for an approved major program. Some major programs may require completion of a minor or specific related courses outside the major field.

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.

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

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

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

15) Degree candidates must file a completed *Graduation Planning Sheet* with the Records Office no later than the third week of the term prior to the graduating term (check on-line or with the Records Office for specific deadlines).

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

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

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

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

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

MAJOR REQUIREMENTS

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

Emphasis Area/Track

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

MINOR REQUIREMENTS

Minors consist of a sequence of courses in a specific academic discipline which are established by the department offering the minor. General education courses can apply towards the minor and major(s). Upon graduation, completed majors and minors are recorded on the transcript.

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

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.

DOUBLE (CONCURRENT) DEGREES

Students may choose to complete concurrently the requirements for two degrees. 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. The total hour requirement is 150 earned hours. Simultaneous degrees require two separately completed degree planning sheets as well as the permission of the Provost. Successful completion of concurrent degrees will result in two diplomas and both degrees are recorded on the student's academic transcript.

SECOND BACCALAUREATE DEGREE (DEGREE-PLUS)

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

Degree-plus students seeking a second baccalaureate degree are eligible for scholastic honors. To qualify for graduation with honors, a minimum of 60 semester credits must be completed with CSU-Pueblo after the first degree(s) are conferred. In determining the grade point average of a student, only grades earned after the first degree(s) are considered.

The general education and institutional requirements are considered complete if the student has earned a baccalaureate degree from a regionally accredited college or university, and is accepted to the University as a degree-plus student. Prior credit earned will not be posted to the CSU-Pueblo transcript; however, each department may internally consider approving prior credit earned toward certain requirements.

BACHELOR OF ARTS DEGREE: FOREIGN LANGUAGE REQUIREMENT

Students seeking the degree of bachelor of arts must complete one of the three 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.
3) Completion of the first and second semester of American Sign Language. SP 110 & 210

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

GENERAL EDUCATION REQUIREMENT

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

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

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

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

Note: Courses listed below that are marked with an asterisk (*) are **not** in the statewide common core, meaning that they are **not** guaranteed in transfer to any other college or university in Colorado.

The general education requirement for graduation includes a total of 35 semester credits in two categories:

Skills Component.....9 credits
Knowledge Component.....26 credits

TOTAL .....35 credits

I. SKILLS COMPONENT

To complete the Skills component, students must successfully complete courses in the following content areas:

Written Communication.....(2 courses) ..... 6 credits
Quantitative Reasoning.....(1 course) ..... 3 credits

TOTAL..... 9 credits

A. Written Communication

Take **each** of the following courses:

ENG	101	English Composition I.....	3 credits
ENG	102	English Composition II.....	3 credits

B. Quantitative Reasoning

Take **one** of the following courses:

MATH	109	Mathematical Explorations.	3 credits
MATH	121	College Algebra	4 credits
MATH	124	Pre-Calculus Math	5 credits
MATH	126	Calculus and Analytic Geometry I	5 credits
MATH	156	Introduction to Statistics.....	3 credits
MATH	221	Applied Calculus: An Intuitive Approach	4 credits

or any MATH course that includes one of these as a prerequisite.

II. KNOWLEDGE COMPONENT

To complete the Knowledge component, students must successfully complete courses in the following content areas:

Humanities .....(3 courses).....9 credits
History.....(1 course).....3 credits
Social Sciences.....(2 courses).....6 credits
Natural and Physical Sciences
(2 courses with labs)..... 8 credits

TOTAL.....26 credits

Students must take one course that is designated as cross-cultural. Courses taken to meet the Knowledge content area requirements may also be used to meet the cross-cultural requirement if they have a ***(CC)*** next to their listing.

Your major may recommend certain courses from this list. Refer to your major's catalog description for more information.

Note: Courses listed below that are marked with an asterisk (*) are **not** in the statewide common core, meaning that they are **not** guaranteed in transfer to any other college or university in Colorado.

A. Humanities

ART	100	Visual Dynamics ***(CC)***
ART	211	History of Art I ***(CC)***
ART	212	History of Art II ***(CC)***
ENG	130	Introduction to Literature
ENG/CS	220	Survey of Chicano Literature ***(CC)***
ENG	221	Masterpieces of Literature I
ENG	222	Masterpieces of Literature II
ENG	240	Survey of Ethnic Literature ***(CC)***
FL	100*	Introduction to Comparative Linguistics *(CC)*
Foreign Language (FRN, GER, ITL, RUS, SPN)		Courses: 101*, 102*, 201*, or 202* ***(CC)***
MUS	118	Music Appreciation ***(CC)***
PHIL	102	Philosophical Literature
PHIL	120	Non-Western World Religions ***(CC)***
PHIL	201	Classics in Ethics
PHIL	204	Critical Reasoning
PHIL	205	Deductive Logic
SPCOM	103*	Speaking and Listening
SPN	130	Cultures of the Spanish-Speaking World ***(CC)***

B. History

HIST	101	World Civilization to 1100 ***(CC)***
HIST	102	World Civilization from 1100 to 1800 ***(CC)***
HIST	103	World Civilization since 1800 ***(CC)***
HIST/CS	136	Southwest United States ***(CC)***
HIST	201	US History I
HIST	202	US History II

C. Social Sciences

ANTHR	100	Cultural Anthropology ***(CC)***
ANTHR/ ENG	106*	Language, Thought and Culture ***(CC)***
CS	101	Introduction to Chicano Studies ***(CC)***
ECON	201	Principles of Macroeconomics
ECON	202	Principles of Microeconomics
GEOG	103*	World Regional Geography ***(CC)***
MCCNM	101*	Media and Society
POLSC	101	American National Politics
POLSC	200	Understanding Human Conflict ***(CC)***
PSYCH	100	General Psychology
PSYCH	151	Human Development
PSYCH	222	Understanding Animal Behavior
PSYCH/SOC/WS	231*	Marriage, Family and Relationships
SOC	101	Introduction to Sociology
SOC	201	Social Problems

D. Natural and Physical Sciences

BIOL	100/L	Principles of Biology with Lab
BIOL	121/L	Environmental Conservation with Lab
BIOL	191/L*	College Biology I/Botany with Lab
BIOL	192/L	College Biology II/Zoology with Lab
BIOL	223/L	Human Physiology & Anatomy I with Lab
BIOL	224/L	Human Physiology & Anatomy II with Lab
CHEM	101/L	Chemistry and Society with Lab
CHEM	111/L	Principles of Chemistry with Lab
CHEM	121/L	General Chemistry I with Lab
CHEM	122/L	General Chemistry II with Lab
CHEM	160/L	Introduction to Forensic Science with Lab
EXHP	162/L*	Personal Health with Lab
GEOL	101/L	Earth Science with Lab
MET	105*	It's a Material World
PHYS	110/L	Astronomy with Lab
PHYS	140/L	Light, Energy and the Atom with Lab
PHYS	201/L	Principles of Physics I with Lab
PHYS	202/L	Principles of Physics II with Lab
PHYS	221/L	General Physics I with Lab
PHYS	222/L	General Physics II with Lab

III. TRANSFER STUDENTS

Colorado State University-Pueblo 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 CSU-Pueblo'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, CSU-Pueblo accepts the Colorado Community College and Occupational Educational System General Education Core Transfer Program as a substitute for the University's general education requirements for a student who is certified as having successfully completed the core curriculum.

Transfer students from Colorado four-year colleges or universities who have completed general education requirements with a minimum 2.30 grade point average will be considered to have fulfilled CSU-Pueblo's general education requirements. However, only courses with grades of C- or better will be accepted for credit in transfer. It is the student's responsibility to document that the general education requirements were satisfied at the transfer institution.

IV. READMIT STUDENTS

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

V. COURSE SUBSTITUTIONS/WAIVERS

Substitutions and/or waivers for courses fulfilling general education requirements may be approved by the appropriate department chair or the Associate Director of Records.

ASSESSMENT PROGRAM

Legislation enacted by the Colorado General Assembly requires that:

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

2) Such demonstrable improvements be publicly announced and available;

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

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

Colorado State University-Pueblo, 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 Board of Governors of the Colorado State University System and the Colorado Commission on Higher Education and used for the purposes of improving the quality of the educational experience at the University.

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

Basic Educational Goals for all Undergraduates

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

1) Fields of Study Goals

Major Field

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

Minor Field

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

2) Intellectual Skills Goals

Literacy Skills

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

Quantitative Skills

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

3) Intellectual Capacities Goals

Problem Solving, Logical Inquiry and Critical Analysis

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

Assessment of Basic Educational Goals

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

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

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

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

Educational Goals for Majors and Minors

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

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

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

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

Student Surveys

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

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 graduate 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 CSU-Pueblo, within six years of their initial enrollment. First-time undergraduate students are defined as full-time, degree seeking undergraduate students who enroll at Colorado State University-Pueblo 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.

STUDENT BILL OF RIGHTS—FOUR YEAR GRADUATION AGREEMENT

The Student Bill of Rights (also known as Colorado House Bill 01-1263) states that *a student can sign a four-year graduation agreement that formalizes a plan for the student to obtain a degree in four years.* Colorado State University-Pueblo supports this timeline for graduation by publishing advising guidelines under which a student may expect to graduate in four years and also publishes curriculum check sheets defining the four-year course progression for each major. These check sheets and advising guidelines are available in each Department Office.

SPECIAL ACADEMIC PROGRAMS AND SERVICES

SPECIAL ACADEMIC PROGRAMS

UNIVERSITY STUDIES

The University studies Program offers students opportunities to take courses in areas generally not available through the University's departmental structures. These include such interdisciplinary programs as the President's Leadership Program and the Interdisciplinary Honors Program as well as individual courses that will contribute to the student's University education but are not available through other departments or programs.

PRESIDENT'S LEADERSHIP PROGRAM

Director: Shelly Moreschini
Academic Director: Patricia Orman
Faculty: Jeff Stuyt

The Colorado State University-Pueblo President's Leadership Program (PLP) is a four-year, competitive, cohort-based, multidisciplinary program with a strong experiential emphasis that leads to a minor in Leadership Studies. The curriculum includes a core of four three-credit-hour courses and six credit hours of approved elective courses selected from leadership courses offered on campus.

The vision of the President's Leadership Program is to create multi-culturally competent transformational leaders who will serve the communities in which they live and work. Crucial to the development of participants' leadership skills and practices are the acquisition of intercultural competence, social consciousness and civic responsibility, as well as ethical and altruistic attitudes and behaviors.

President's Leadership Program Goals

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

Requirements for Leadership Studies Minor

Program participants will receive the President's Leadership Scholarship, $2000 per academic year ($1,000 per fall and spring semester), for a maximum of four years. This scholarship program is currently underwritten by the El Pomar Foundation of Colorado Springs and by other organizations in the community. Recipients must remain in good academic standing within the program in order to renew the scholarship. Program participants must maintain a minimum grade point average of 3.0 within the minor in order to remain in good academic standing. Program participants are expected to be involved in extra-curricular activities on campus and in the community, and must adhere to the PLP Standards and Expectations, as outlined in the PLP Student Handbook.

Program Admissions

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

Admissions Criteria

Students must be admitted to Colorado State University-Pueblo as first-time, full-time students. Applicants to the President's Leadership Program must demonstrate academic excellence, leadership potential, and community service experience. Each of these factors will be weighted equally in the selection process.

Application Process

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

- President's Leadership Program Application Form (available online).
- Applicant's resume (including personal objectives, education, work experience, school and community leadership experiences, honors and awards, reference names of three professionals).
- A 2-3 page essay on leadership.
- Two letters of recommendation from professionals (teachers, principals, pastors, employers, etc.).

- A copy of official transcript for most recent coursework completed.

- Other supporting documentation of leadership (newspaper articles, newsletter clippings, etc.).

Timelines

Application materials must be postmarked by February 1 and received in the CSU-Pueblo Office of Admissions by the close of business on February 15. Interviews with the members of the PLP Advisory Board will be scheduled during March of each year.

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

Requirements:

Courses		Titles	Credits
US	160	Introduction to Leadership	3
US	260	Leadership in Service Organizations	3
US	360	Applied Leadership	3
US	460	Working with Experienced Leaders	3
Approved Electives (minimum)			6
		TOTAL	18

Students may choose from the following electives to complete the minor in Leadership Studies. Students are encouraged to diversify their selections and avoid taking eight hours in one disciplinary area. Special topics courses related to leadership may also be approved on a case by case basis. Course descriptions for these classes are included in the 2006-2007 CSU-Pueblo catalog. Other courses may be approved; students should check with the academic advisor for a current roster of specific additions. (In some cases, prerequisites or permission of instructor may be required for enrollment. See course description section of catalog for prerequisites.)

Courses		Titles	Credits
BUSAD	270	Business Communication	3
BUSAD	302	Ethics in Business	3
EXHP	436	Exercise Assessment & Leadership	3
MCCNM/ SW	370	Non-Profit Orgs & Communication	3
MGMT	201	Principles of Management	3
MGMT	301	Organizational Behavior	3
PHIL	201	Classics in Ethics	3
POLSC	405	The American Presidency	3
PSYCH	311	Theories of Personality	3
PSYCH	315	Organizational and Administrative Psychology	3
PSYCH/ SOC	352	Social Psychology	3
PSYCH	464	Systems of Counseling and Psychotherapy	3
REC	270	Outdoor Leadership I	2
REC	350	Leadership and Ethics	3
REC	370	Outdoor Leadership II	2
SOC	432	Organization Theory	3
US	491	Special Topics	3

The President's Leadership Program staff recommends at least one course focusing on the issues of diversity, either as a general education offering or as it relates to leadership, to prepare students for leadership in a multicultural world. Considering the benefits of a multidisciplinary education, students should select electives from more than one disciplinary area.

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.

UNIVERSITY SERVICES

CAREER CENTER

The Colorado State University-Pueblo Career Center is located on the main floor of the Occhiato University Center. The Career Center offers employment services to current students and alumni from the University.

The Career Center assists students with professional employment, career planning and career coaching. This includes: Résumé and Cover Letter development, interviewing skills, how to search and apply for internships, and strategies on how to conduct a self-directed job search.

The Career Center receives and posts full and part-time employment opportunities and internships on a regular basis. Resource information such as salary surveys, job choices magazines and reference materials are also available.

The Career Center also coordinates all on-campus recruiting by employers and coordinates the annual Career and Education Fairs.

For further information about programs and services offered by the Career Center, contact a staff member at (719) 549-2980 or visit our website at http://www.colostate-pueblo.edu/careercenter.

CENTER FOR INTERNATIONAL PROGRAMS

The Center for International Programs (CIP) is responsible for the recruitment, admission, enrollment, and retention of international students at CSU-Pueblo. Some of the services provided are: housing placement, airport pick-up, student orientations, cultural activities, Bureau of Citizenship and Immigration Services (BCIS) advising, assistance with academic concerns, and English tutorial services. All services are free of charge.

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

- ***Orientation***: All new international students to CSU-Pueblo are required to participate in a two-day mandatory orientation upon arrival. During orientation, new students will be administered English and math placement exams. Results will indicate registration into the appropriate course(s) and do not interfere with admission to the University.

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

- ***English Language Institute:*** The ELI of CSU-Pueblo offers those lacking English proficiency a way to become proficient for entrance into university level coursework. The tuition is kept low, while quality of the program remains high. Students are offered conditional letters of acceptance into regular major programs, pending proof of language proficiency. Contact annie.williams@colostate-pueblo.edu for further information.

- ***Sports***: International students are encouraged to participate in intramural sports offered at CSU-Pueblo. In addition, the CIP supports and organizes informal soccer, tennis, ping-pong and bowling teams.

The CIP is also the origination point for those CSU-Pueblo students interested in Study Abroad and Student Exchange Programs. Such opportunities allow CSU-Pueblo students to study in accredited universities throughout the world.

STUDY ABROAD PROGRAMS

Colorado State University-Pueblo values the benefit of an education that includes international experiences. Consequently, the University encourages students with second language proficiency, when appropriate, to enroll in the CSU-Pueblo Study Abroad Program. Students wishing to increase cultural awareness, second language proficiency or competency in subjects offered in international settings, are encouraged to contact the Center for International Programs. Study abroad opportunities for CSU-Pueblo students are presently available in accredited universities in: China, France, Germany, Italy, Korea, Mexico, and Thailand.

For more information call (719) 549-2329, e-mail: intprog@colostate-pueblo.edu or visit the CIP website at http://www.colostate-pueblo.edu/internationalprograms or contact any of the professional office staff personally in the Occhiato University Center Underground Annex.

CONTINUING EDUCATION

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

Off-campus instruction sites include Colorado Springs Citadel Center, Peterson Air Force Base, and Fort Carson.

Both degree- and non-degree seeking students may participate in Continuing Education programs. (Only degree-seeking students are eligible for financial aid.) Persons desiring classification as degree-seeking students in the External Degree Completion Program must apply for admission to the University. Credit courses taken through the Colorado State University-Pueblo 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 students. A variety of educational methods - classroom instruction, correspondence courses, on-line courses, conferences, workshops and seminars - are utilized to expand educational access and meet the needs of students at convenient times and settings. Students may earn academic credit toward a degree, study for career advancement, or pursue cultural and avocational interests.

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

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

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

For more information contact the Dean of Division of Continuing Education: phone 1-800-388-6164, or at the University's website.

CSU-PUEBLO BOOKSTORE

The Colorado State University-Pueblo Bookstore is conveniently located in the Occhiato Center and is open to the University community as well as the general public. The primary role is to serve as the primary academic bookseller and provider of supplies in support of the academic programs and events for the University community. The CSU-Pueblo Copy Center is also located in the bookstore and ready to serve the University community.

The University Bookstore also carries a variety of products including general books, office and art supplies, gifts, officially licensed "Thunderwolves" apparel, and assorted food and snack products. Computer software is available to students, faculty, and staff at educational prices. Hours of operation are posted at the store entrance and on the store website.

Customers may also take advantage of 24/7/365 shopping at the store via the University Bookstore website at www.csupueblobookstore.com.

KTSC-TV

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

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

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

KTSC-TV produces 3 hours per week of local programming from September through May. There are additional local productions that take place during the summer months. Local programs produced by KTSC-TV include, Matchwits, Homework Hotline, and Colorado State of Mind.

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

MATH LEARNING CENTER

The Math Learning Center (MLC) at CSU-Pueblo gives students a place to work in a collaborative and supportive environment. Located in PM 132, students can drop by anytime. The center is open Monday through Friday during each semester. Once there, students receive help from qualified tutors. The MLC is staffed by 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 CSU-Pueblo students a place and a plan for success in college level math classes. For more information, call the Math Learning Center Director, Mary Middleton, at 549-2733.

OCCHIATO CENTER

The Occhiato University Center houses many student service areas. The departments housed in the center are: the CSU-Pueblo Bookstore and Copy Center; Auxiliary Services; Career Center; Student Computer Lab; Dining Services with three different eating areas for you to select from (Columbine Café, Aspen Leaf Restaurant and La Cantina); Student Life; Student Counseling Center; Student Health Services; Student Activities Board; Experiential Learning Center; International Programs; Multicultural Center and the Games Room also known as the Underground.

The Center is operated by the department of Auxiliary Services located in Room 102. During the academic year, the Occhiato University Center is open regularly from 8:00 a.m. to 10:00 p.m. Monday through Thursday and 8:00 a.m. to 7:00 p.m. on Friday with additional hours as required for scheduled events. The Center is open on Saturday and Sunday during meal hours and for scheduled events. Limited hours are established during summer and when classes are not in session. However, the Center hours are extended to accommodate special events and meetings.

Identification Cards

All students enrolled should purchase an ID card, in the Auxiliary Services Office located in Room 102 or the Center. The office is open Monday through Friday, from 8:00 a.m. to 5:00 p.m. There is a $10 charge for all ID's - new or replacement. Fiesta Cash, Commuter Meal Plans and Bookstore Bucks can also be purchased with your ID cards. The staff in the Auxiliary Services office would be happy to give you more detailed information on these bonus items.

Parking Decals

All students are required to purchase an annual parking decal for their vehicle or motorcycle. Students are encouraged to purchase their parking decals at the beginning of each academic year since parking rules are enforced by the Pueblo County Sheriff's Office located on the CSU-Pueblo Campus. Decals can be purchased in the Auxiliary Services Office throughout the year.

Lost and Found

Auxiliary Services is the central Lost and Found for the campus. If you have lost something please stop by our office located in the Occhiato Center, Room 102 or contact us at (719) 549-2149.

STUDENT ACADEMIC SERVICES

Writing Room

The Writing Room provides an inviting atmosphere where students can receive advice and positive feedback on any type of writing from research papers, letters, and writing assignments to poetry and fiction. Visit us in Psychology 232, online at www.colostate-pueblo.edu/owl, or call us at (719) 549-2901.

Academic Improvement Program

This program helps students on academic probation develop an individualized plan for improving their academic standing. Contact us in Psychology 232 or call (719) 549-2581.

Disability Resource Office

The Disability Resource Office provides support and reasonable academic accommodations to students with documented disabilities. We are located in Psychology 232 or call (719) 549-2581.

New Student Orientation

To welcome new students, Student Academic Services (SAS) implements a year-round orientation program for new first-year students and for their parents and family members. Sessions are offered throughout the summer and at the beginning of each semester. Students will meet key academic and administrative personnel, learn about University policies, get familiar with student life, receive academic advising, and register early for classes. See us in Psychology 232 or call (719) 549-2581.

Academic Advising

Academic Advising is one of several programs provided by Student Academic Services. The Academic Advising program serves as the primary advisors for all first-time freshmen as well as all undecided students. We not only help undecided students understand the advising and registration process, we also help students chart their academic journey until they declare an academic major. We provide students with assessment tools to help them

identify interests if they are not sure what major to select. Stop by and see us in the Psychology Building, Suite 232, or give us a call at (719) 549-2581.

THE UNIVERSITY LIBRARY

The University Library supports teaching and learning by providing information services to students, faculty, staff and patrons throughout the city and region.

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

Approximately 200,000 volumes are available, as well as access to over 15,000 periodical titles. The library's website provides access to over 75 online databases with reference information and journal articles, as well as web-based tutorials and help guides.

The University Library is a designated selective depository for U.S. Government documents. Special collections include the papers of Vincent Massari, former state senator; the Alva Adams family papers; Tobie Hopkins Black Literature; the Ralph Taylor Southwest collection, and the Edward O'Brien Western collection.

VEHICLE PARKING PERMITS

Students who park their vehicles on campus must display a valid permit. Permits may be obtained at the cashier's window or Auxiliary Services (OUC Room 102) prior to the first day of class. The cost of the permit is $50 for a decal, or $75 for a hang tag which can be transferred from one vehicle to another.

FEDERALLY SPONSORED PROGRAMS

MASS GEARUP

The MASS GEARUP Program (Gaining Early Awareness and Readiness for Undergraduate Programs), is a federally funded program in partnership with Colorado State University-Pueblo, Pueblo School Districts 60 and 70, Pueblo Community College, and local businesses and organizations.

The program is designed to provide middle school and high school students the skills, encouragement, and preparation needed to pursue a college education with emphasis on improving math, reading and writing instruction and student skills.

Pueblo School District 60 and 70 schools served by the MASS GEAR UP Program are: Corwin, Freed, Pitts, Risley, and Vineland middle schools and Central, Centennial, South, East, and Pueblo County high schools.

Program services are provided to students beginning in the 7th grade and continue throughout high school until graduation.

Services include:

- Individual Educational Plans
- Tutoring Program
- Professional Mentoring
- Summer Academic and Enrichment Program
- College Orientation and College Visits
- Admission and Financial Aid Training
- Scholarship Exploration Assistance
- Parent and Student Educational Workshops
- Career Development and Individual Career Portfolios
- Teacher Professional Development

MINORITY BIOMEDICAL RESEARCH SUPPORT (MBRS) PROGRAM

The MBRS Program provides research opportunities 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.

SOUTHERN COLORADO EDUCATIONAL OPPORTUNITY CENTER (SCEOC)

SCEOC is a federally funded grant program, sponsored by CSU-Pueblo that assists eligible first-generation, low-income, and disabled adults in gaining access to higher education. The program provides services in sixteen southern Colorado counties and two northern New Mexico counties.

Services include:

- Information about college and career opportunities.
- Assistance in completing admissions and financial aid applications.
- Referrals to GED and college preparation programs.
- Information about scholarship opportunities.

The central office is located on the CSU-Pueblo campus, Room 227 in the Library Wing. Satellite offices are located at workforce centers in Pueblo and Alamosa and on community college campuses in Colorado Springs, Lamar, La Junta, and Trinidad. To access services or for more information, call (719) 549-2457 or toll free (877) 302-4433.

STUDENT SUPPORT SERVICES

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

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

- Be enrolled or accepted for enrollment at CSU-Pueblo as an undergraduate student,
- Be a low-income student as outlined by Department of Education criteria, OR
- Be a first-generation student, OR
- Be a student with a documented disability, AND
- Meet the academic criteria as established by the SSS Project, AND
- Be a citizen, national, or permanent resident of the U.S.

Students who meet these criteria are encouraged to apply to become a participant in the CSU-Pueblo SSS Project. For additional information, call (719) 549-2111 or stop in at LW 230.

UPWARD BOUND

The Upward Bound Program at Colorado State University-Pueblo 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 college students who are enrolled in high schools seeking to prepare themselves for entry into a postsecondary institution.

Eligible participants must:

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

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

VETERAN'S UPWARD BOUND PROGRAM

Veteran's Upward Bound is a U.S. Department of Education funded program to assist and encourage honorably discharged Veterans who are low-income and/or first generation to college to pursue their education. Under the direction of Colorado State University-Pueblo, Pikes Peak Community College and Pueblo Community College have joined together to provide resources and staff to support our growing Veteran population.

Veteran's Upward Bound provides college preparatory courses to veterans beginning or returning to college. The program will also assist participants who do not have a high school diploma to prepare for the General Educational Development (GED) test. Classes are conducted both day and evening during the spring, summer, and fall semesters in classrooms located at Pikes Peak Community College and Pueblo Community College. To qualify for services veterans must be Honorable Discharged and Low-Income and or First Generation college students.

While college credit is not granted for VUB course-work, the courses are designed to prepare veterans to succeed in college. We work closely with our host campuses to ensure your success upon completion of the program. Eligible veterans can draw GI Bill

educational benefits while in attendance of VUB classes and best of all there is NO COST to the veteran for services received through this program.

Services include:

- GED Preparation
- Academic Skills Refresher Training
- Basic Computer Literacy
- English Grammar & Composition
- Mathematics
- Science
- Foreign Language - Spanish
- Career and Academic Planning
- College Entrance Assistance
- Admissions assistance
- Financial Aid advising

Veteran's Upward Bound stands ready and willing to support our citizen Soldiers, Sailors, Marines, Airmen, Coast Guard, Reserves and National Guard. We are Vets helping Vets to achieve a better quality of life through a higher level of education.

GRADUATE PROGRAMS

GRADUATE POLICIES AND PROCEDURES

GRADUATE ADMINISTRATION

Graduate programs and curricula at Colorado State University-Pueblo are developed by the faculty and administration in the instructional colleges, centers and schools and are administered with the assistance of the director of the Office of Admissions and Records. Academic policy matters affecting graduate programs and courses 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

Colorado State University-Pueblo offers selected graduate courses and programs for degree-seeking and non-degree students. Graduate degrees are offered in applied natural science (MSANS), industrial and systems engineering (MSISE), business administration (MBA), and nursing (MS). In addition, the University participates in consortial arrangements with Colorado State University (Fort Collins) for a graduate degree in English (MA). Although the latter program is offered on the CSU-Pueblo campus, the actual degree is awarded by Colorado State University (Fort Collins), and graduate regulations pertaining to the degree 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 begin graduate courses must submit the following items to the Office of Admissions, Colorado State University-Pueblo, 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 Colorado State University-Pueblo and an application fee of $35. The fee is non-refundable and is not applicable towards tuition. An application form may be obtained by writing the CSU-Pueblo Office of Admissions or by telephoning (719) 549-2461 or online at www.colostate-pueblo.edu.

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 may be used for advisement purposes only.

3) An official score from the appropriate standardized admission exam must be provided. See specific programs for required exam(s) and scores.

4) For international 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. However, a minimum score of 550 TOEFL (paper-based exam) or 213 TOEFL (computer-based exam) is required for the master in business administration (MBA) and the Master of Science with a major in nursing. 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 departments.

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/coordinator 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 (see note below) from an institution accredited by the regional accreditation agency (or equivalent);
- The minimum undergraduate GPA established for the program: applied natural science – 3.000; business administration – 3.000; English 3.000, industrial and systems engineering – 3.000; nursing – 3.000 for the last 60 graded semester hours;
- Submission of satisfactory scores from a standardized admissions test if required 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.

*Note: Admission to an approved joint degree program at CSU-Pueblo does not require a baccalaureate.

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 and Records, on recommendation of the program director/coordinator, will admit the student under conditional status if the student's grade-point average is at least 2.500, but not high enough for regular admission; or if the student has not met a condition specified by the program department. Such special action may be taken if there are positive indicators of graduate success, e.g., high GRE or GMAT scores, solid upper-division performance, or outstanding professional achievement.

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

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

Non-Degree Status

The Director of Admissions and Records will admit the student with non-degree status under the following conditions:

1) The student requests courses for professional development only.

2) The student's record shows that he/she does not meet the qualifications for admission to a degree program with conditional or regular status. In this case, with the approval of the program director/coordinator, the Director of Admissions and Records will notify the student of the deficiency, the procedure to follow to become qualified and the name of an advisor who can assist the student. The advisor 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 advisor with a 3.000 GPA or better at CSU-Pueblo may petition the program director/coordinator 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. However, students planning to enter the MBA Program may only apply 6 hours of graduate credit taken with non-degree status toward a degree.

Graduate Work Taken by Seniors

CSU-Pueblo students who are in their senior year of undergraduate work, and who have met the admissions requirements for the program may take graduate courses for graduate credit (except programs with a 3-2 option, or other restrictions) with the approval of the appropriate program director/coordinator and the Director of Admissions and Records. Students should consult with the program director/coordinator or department responsible for the course in cases where there is not a program director/coordinator, to determine requirements or restrictions. For approved enrollment, students may take up to 12 graduate hours 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.

Note: Students planning to enter the MBA Program may only apply 6 hours of graduate credit taken as a senior toward their graduate degree.

CHANGE OF STATUS

The Director of Admissions and Records will notify the student and the program director/coordinator 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+, C, or C- may apply toward graduation. A maximum number of nine semester hours of transfer credit may be applied to the degree.

2) Have regular student status.

3) Complete the program's minimum number of hours of approved course work. The MBA and industrial and systems engineering programs require a minimum of 36 semester hours. The applied natural science program requires a minimum of 30-32 semester hours. The MSN requires a minimum of 53 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 advisor 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 five approved copies of the thesis to the Library for binding. The bound thesis will be distributed to each of the following: one to the program director/coordinator, two to the University Library, one to the committee chair, and one to the department.

NOTE: 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 credit from non-United States institutions will be evaluated on a case-by-case basis. Transfer credits must be directly applicable to the degree program and must be approved by the applicant's graduate committee and the Director of Admissions and Records. Graduate credits accepted in transfer must be from a course in which a grade of B- or better was earned. Credits accepted in transfer do not apply to the GPA at CSU-Pueblo. Credits already used for a degree at another institution can not be used toward fulfilling a CSU-Pueblo degree.

GRADUATE ADVISING

Each graduate degree area has a program director/coordinator that serves as graduate advisor to all graduate students in the program, unless the dean of the college, center, or school makes a different assignment. The advisor will assist in selecting a graduate committee for each student who chooses the thesis option. The graduate committee shall consist of at least three faculty members and is appointed by the dean of the college, center or school in consultation with the student and the program director/coordinator. 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 advisor and the graduate committee include advisement, approval of the degree plan, approval of a thesis or directed research topic and final document (if appropriate), and administration and approval of comprehensive and/or oral examinations.

COURSE LOADS

Graduate students enrolled in nine (9) or more hours shall be considered as full-time students (six hours,

summer); those enrolled for six (6) hours shall be considered as half-time students (three hours, summer).

TIME LIMITS

Courses completed six (6) or more years before the date of graduation, either at CSU-Pueblo or at some other institution, will not be accepted as satisfying graduation requirements without the approval of the student's graduate director/coordinator and 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/coordinator, to the Records Office. 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 advisor and program director/coordinator and submitted to the Records Office.

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/coordinator may, however, stipulate a grade point to be achieved in such undergraduate courses.

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

DUAL DEGREE CREDIT

Up to six semester hours of elective credit may be applied to more than one graduate degree program if the degrees are pursued concurrently pending approval of the graduate committee of the program involved and the Records Office.

ACADEMIC STANDARDS

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

A	4.00	Excellent
A-	3.67	
B+	3.33	
B	3.00	Good performance
B-	2.67	
C+	2.33	
C	2.00	Passing, but below expected performance
C-	1.67	
D+	1.33	
D	1.00	Unsatisfactory performance
D-	0.67	
F	0.00	Failing

IN	Incomplete
S	Satisfactory
IP	In progress
U	Unsatisfactory
W	Withdrawal
WN	Withdrawal for nonpayment
NC	No credit

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

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

A student may appeal dismissal by submitting a written petition to his/her program director/coordinator This petition must provide a justification for continued

registration. The program director/coordinator shall forward a recommendation through the appropriate dean to the Office of the Provost. The provost or his/her 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 advisor. 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/coordinator, 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 five (5) official copies of the approved thesis to the University Library for binding. The student will pay the Library for the binding cost (based upon the fee schedule maintained by the Library) of the 5 required copies plus any additional copy bindings requested by the student. The bound thesis will be distributed to each of the following: one to the program director/coordinator, two to the University Library, one to the committee chair, and one to the department.

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 bound copies of the thesis must be of high-quality printing and must use a paper of the same quality as the original and include color pages wherever appropriate. 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.

For additional thesis or directed research requirements, consult your program advisor.

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 advisor.

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

APPEALS

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

PROGRAMS OF STUDY

APPLIED NATURAL SCIENCE (MS)

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

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

The Master of Science in Applied Natural Science requires 30 or 32 semester credit hours of approved graduate course work in either the thesis or non-thesis option. The program offers three emphasis areas: applied biological sciences, applied chemical sciences, and applied biochemical sciences.

Degree Requirements

The course of study requires seven semester credits of work common to all students. Each student must select an emphasis area with a core of 7-11 semester credits. Six to fourteen 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 and the MSANS Director.

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 a formal written report based on an internship and defend their internship work before their graduate committee.

Program requirements are summarized as follows:

		Plan A (thesis option)	Plan B (non-thesis option)
ANS	510	1	1
ANS	520	1	1
ANS	588		1
	OR		
ANS	589	1	
ANS	593	1	1
MATH	550	3	3
Emphasis Core Courses (Biological emphasis OR Chemical emphasis OR Biochemical emphasis		7-11	7-11
Thesis research		6	—
Graduate Internship		—	4
Elective courses		6-10	10-14
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

Courses		Titles	Credits
ANS	510	Science Information Systems	1
ANS	520	Health and Safety in the Lab	1
ANS	588	Internship Seminar	
	OR		
ANS	589	Thesis Defense Seminar	1
ANS	593	Seminar	1
MATH	550	Statistical Methods	3
		TOTAL	7

Required Courses for Each Emphasis

Biological Sciences Emphasis Core

Courses		Titles	Credits
BIOL	540/L	Molecular Genetics/Lab	3
BIOL	552/L	Advanced Microscopy/Lab	4
		TOTAL	7

Chemical Sciences Emphasis Core

Courses		Titles	Credits
CHEM	503	Polymer Chemistry	3
CHEM	529	Advanced Instrumentation	2
CHEM	550	Industrial Chemistry	2
		TOTAL	7

Biochemical Sciences Emphasis Core

Courses		Titles	Credits
BIOL	540/L	Molecular Genetics/Lab	3
CHEM	511	Biochemistry I	3
CHEM	512/L	Biochemistry II/Lab	5
		TOTAL	11

Elective Courses are selected from courses listed below: (others may be added, with permission as new courses are added)

Courses		Titles	Credits
BIOL	502	Immunology	3
BIOL	512/L	Cellular Biology/Lab	5
BIOL	521/L	Histology/Lab	5
BIOL	526/L	Plant Morphology/Lab	3
BIOL	532/L	Developmental Biology/Lab	4
BIOL	540/L	Molecular Genetics/Lab	3
BIOL	541/L	Freshwater Invertebrate Zoology/ Lab	4
BIOL	543/L	Limnology/Lab	4
BIOL	550/L	Survey of Genomics and Bioinformatics/Lab	3
BIOL	552/L	Advanced Microscopy/Lab	4
BIOL	553/L	Ecology/Lab	4
BIOL	562	Environmental Management	3
BIOL	565	Environmental Toxicology	3
BIOL	579/L	Ichthyology/Lab	3
BIOL	581/L	Entomology/Lab	3
BIOL	583/L	Mammalogy/Lab	3
BIOL	584/L	Ornithology/Lab	3
BIOL	585/L	Plant Taxonomy/Lab	4
BIOL	591	Special Topics	1-4
BIOL	595	Independent Study	1-4
CHEM	501/L	Advanced Organic Chemistry/Lab	4
CHEM	503	Polymer Chemistry	3
CHEM	511	Biochemistry I	3
CHEM	512/L	Biochemistry II/Lab	5
CHEM	519/L	Instrumental Analysis/Lab	5
CHEM	521	Advanced Inorganic Chemistry	3
CHEM	525	Environmental Chemistry	3
CHEM	529	Advanced Instrumentation	2
CHEM	550	Industrial Chemistry	2
CHEM	560	Forensic Chemistry	2
CHEM	591	Special Topics	1-4
CHEM	595	Independent Study	1-4

APPLIED NATURAL SCIENCE 3+2 PLAN (BS/MS)

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

Specific requirements for the 3+2 program are included in the Masters Degree in Applied Natural Science 3+2 Plan (BS/MS) description of the *College of Science and Mathematics*, undergraduate programs section of this catalog.

MASTER OF BUSINESS ADMINISTRATION (MBA)

The goal of the MBA program is to prepare students for high-level general management careers in business and other organizations. Students acquire an understanding of management theory and application, 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 environment 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, and case studies that are designed to demonstrate the integrative, interdisciplinary nature of business decisions.

The program is open to all applicants with a bachelor's degree, regardless of the undergraduate field of study, who can demonstrate an appropriate background in: quantitative methods, which should include college algebra and statistics. Students without prior business course work will be required to take selected leveling courses such as: financial accounting (see ACCTG 201 for details), microeconomics (see ECON 202 for details), finance (see FIN 330 for details), management (see MGMT 201 for details), marketing (see MKTG 340 for details), and quantitative methods. Students completing leveling courses must achieve a minimum GPA of 3.000. Students who earn less than a "C-" in any leveling course will be dismissed from the program. Graduate students are required to complete all leveling course requirements before enrolling in the first 500 level courses. In some instances, a student

will be permitted to enroll in 500 level courses while completing the final leveling courses.

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. Category I admission will be given to those students who have an undergraduate GPA of at least 3.000 and have a GMAT score of at least 450. Category II admission may be granted to students with GPAs between 2.500 and 3.000. Category II admitted students must achieve an index of at least 1000 (with a GMAT of at least 400) before the end of the semester in which they complete six hours at the 500 level. In some instances, a student will be permitted to enroll in 500 level courses while completing the final leveling courses. Students will not be allowed to enroll in more than six hours of graduate level course work without being fully admitted to the program.

Students who fail to meet these admissions requirements may provide additional evidence of their ability to complete the program. Such evidence may include: performance in outside activities, evidence of creativity or leadership, and a record of accomplishment.

The MBA degree will be conferred upon students who successfully complete a minimum of 36 hours of approved course work with a minimum GPA of at least 3.000. The curriculum is composed of two options with 27 semester hours of required core courses that are taken by all candidates. Option one requires an international course and six semester hours of approved graduate electives in the Hasan School of Business. Option two requires six semester hours of coursework with directed research and three semester hours of approved graduate electives.

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

Requirements for Option I

Select One: ACCTG 575, BUSAD 575, ECON 575, FIN 575, MGMT 575 or MKTG 575 3
Approved Electives 6

TOTAL 9

Requirements for Option II

Select Three Courses From: CIS 550, 560, 561, 562, 581 582, or 591 9

TOTAL 9

Requirements for Option III

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 AND BS-CIS/MBA PROGRAMS

Specific requirements for the joint BSBA/MBA and the BS-CIS/MBA plans are included in the *Hasan School of Business* undergraduate programs section of this catalog.

ENGLISH (MA)

In cooperation with Colorado State University, the Department of English and Foreign Languages offers a general program of study leading to the Colorado State University Master of Arts (M.A.) in English, comprising courses taught at Colorado State University-Pueblo. Courses are scheduled in the evenings to accommodate working professionals, with two or three courses offered each semester, including summer session.

Student must earn a minimum of 32 semester credits (Plan A) or 35 semester credits (Plan B) and must maintain an overall grade-point average of 3.00 or higher in courses taken after admission to the degree program. A minimum of 24 credits must be earned at Colorado State University-Pueblo or Colorado State University (Fort Collins), 21 of which must be earned after admission to the graduate program. Courses from

other institutions must be approved and officially transferred and appear on the transcript. At the conclusion of the program, students must successfully complete an oral defense of the thesis or an independent study presentation.

Specific Requirements

Plan A

Nine or ten courses selected in consultation with the advisor at the ENG 500- or ENG 600- levels, including ENG 501, ENG 600, and ENG 615 and at least two additional courses in literature and two additional courses in writing, rhetoric, and pedagogy.

TOTAL 27-30

Course	Title	Credit
ENG 699	Thesis	3-6

Plan B

Eleven or twelve courses selected in consultation with the advisor at the ENG 500- or ENG 600- levels, including ENG 501, ENG 600, and ENG 615 and at least two additional courses in literature and two additional courses in writing, rhetoric, and pedagogy.

TOTAL 33-36

Course	Title	Credit
ENG 695	Independent Study	2

Admission Requirements

General requirements and exceptions are specified in the Colorado State University Graduate and Professional Bulletin. They include, for English, a 3.0 undergraduate grade-point average on a 4.0 scale and a Bachelor's degree in English or a broad knowledge of English and American literature. (The grade-point average requirement can be waived for applicants with five years of appropriate post-baccalaureate professional experience. See "Track II Admissions.") The Graduate Record Examination is not required. Because of necessary enrollment limitations, admission will be competitive; deferred admission is possible.

Application Instructions

Submit the Colorado State University-Pueblo Application for Graduate Admission form, available from the Office of Admissions, together with a detailed letter of application, three letters of recommendation, and official copies of all college and university transcripts to:

M.A. in English Program Director
Department of English and Foreign Languages
Colorado State University-Pueblo
2200 Bonforte Boulevard
Pueblo, CO 81001-4901

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 CSU-Pueblo 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 program combines a core of fundamental industrial engineering courses with a track of courses selected by student and advisor to advance the professional goals of that student. The program has 16 semester hours of required core courses and 20 semester hours of elective courses, for a total of 36

semester hours. A program of study must include at least 21 semester hours of courses in engineering, at most 12 semester hours at the 400 level, and at most 9 semester hours of graduate level work at another institution. Each student selects 9 semester hours in a focus area or track. Tracks available now include the Information Systems track, Industrial Engineering track, and individualized track; other tracks are under development. In any track, at least 21 credits must be in engineering courses. Thesis and non-thesis options are available.

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, mathematics, and physics, 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: (CSU-Pueblo Course Equivalents)

Computer Programming (EN 101)
Engineering Economy (EN 343)
Stochastic Systems Engineering (EN 365)

Additional mathematics courses may be required before taking EN 365. In some cases, MATH 350 may be acceptable for EN 365.

Required Courses

Courses		Titles	Credits
EN	520	Simulation Experiments	4
EN	571	Operations Research	3
EN	575	Facilities Planning and Design	3
EN	577	Operations Planning & Control	3
EN	593	Graduate Seminar	2
Thesis research and elective courses			21
		Total Semester Hours	36

Information Systems (IS) Track

Select at least 9 hours from:

Courses		Titles	Credits
CIS	591	Special Topics	3
CIS	520	Knowledge Based Systems	3
CIS	550	Data Base Systems	3
EN	588	Graduate Projects, with appropriate topics	3
EN	590	Special Projects, with appropriate topics	1-3 VAR
EN	591	Special Topics, with appropriate topic	1-3 VAR
CIS	591	Credits must be approved by MSISE coordinator	

Industrial and Systems Engineering (ISE) Track

Select at least 9 hours from:

Courses		Titles	Credits
EN	503	Ergonomics	3
EN	504	Scheduling and Sequencing	3
EN	530	Project Planning and Control	3
EN	540	Advanced Engineering Economic	3
EN	588	Graduate Projects, with appropriate topics	3
EN	590	Special Projects, with appropriate topics	1-3 VAR
EN	591	Special Topics, with appropriate topics	1-3 VAR

Elective Courses
(approval required)

Courses		Titles	Credits
ACCTG	510	Managerial Accounting	3
ECON	510	Economics for Managers	3
EN	439	Time and Motion Studies	2
EN	440	Safety Engineering	3
EN	441	Engineering of Manufacturing Processes	4
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	565	Management Information Systems	3

Graduate Assistantships

Full-time students admitted to the program with regular status are eligible to apply for graduate assistantships. Graduate assistants may get additional assistance to pay tuition and fees. 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. Full-time graduate assistants are required to choose the thesis option. An application for assistantship consists of a letter of interest and résumé, addressed to the department chair. The deadline for application is April 1 for the following academic year.

MASTER OF SCIENCE WITH A MAJOR IN NURSING (MS)

Department Mission

As the Southeastern Colorado Center for Nursing, the Department of Nursing's mission is to prepare today's nursing student to be tomorrow's competent and caring nurse.

Department Goals

The Nursing Department will:

- Provide quality learning experiences for nursing students that prepare graduates for practice as competent, caring, ethical, and accountable nurses.
- Maintain approval of the Colorado Board of Nursing and national accrediting agencies.
- Facilitate achievement of baccalaureate and graduate nursing education.
- Serve as the regional nursing education center for southern Colorado, collaborating with local and regional health care agencies by maintaining a program curriculum congruent with the expectations of the agencies, University, and students.

Graduate Program Goals

The program will:

- Prepare advanced practice nursing (APN) graduates to provide quality care along the continuum of aging in multiple environments utilizing the nursing process.
- Facilitate competent care of human needs through multi-theoretical perspectives leading to competence in role development.
- Nurture, improve, and further the development of critical thinking through commitment, compassion, clinical confidence, and competence.
- Incorporate into the curriculum evidence based practice utilizing principles of research and theory to identify research problems and develop research studies to determine the appropriateness of care and treatment in APN practice.
- Facilitate student's ability to provide care that is dynamic and evolving to meet health care needs of clients within the domains of advanced practice nursing.

Expected Student Outcomes

The Master of Science with a Major in Nursing is designed to prepare the graduate to:

- Demonstrate competence and caring in advanced clinical practice to improve the quality of health care that clients receive in a variety of settings.
- Synthesize and analyze advanced knowledge using theories, research, concepts, and principles from nursing, behavioral, social, physiological, and pharmacological disciplines in the area of advanced clinical practice.
- Communicate and collaborate with health care consumers, professionals, managed care, governments, and other groups to manage care and enhance the health and wellness needs of clients.
- Integrate the roles of educator, researcher, consultant, provider, leader, and manager into advanced clinical nursing practice.
- Integrate ethical and legal dimensions confronting the health care environment and the nursing profession.

- Use scientific methods to assess, analyze, and diagnose the complex clinical or non-clinical health care needs of clients, related to their wellness, health, and illness.

- Use theory and research in understanding clinical needs and in determining nursing interventions, therapeutics, and clinical management options.

- Incorporate standards of advanced nursing practice, including personal values, caring, integrity, research, and commitment to life-long learning to ensure quality of care for the client.

- Evaluate and use appropriate educational technologies and resources for making clinical decisions and promoting health maintenance and disease prevention.

Graduate Admissions Policies and Procedures

Students are responsible for all graduate admissions policies and procedures as outlined in the *Graduate Program* section of this catalog. Official scores from standardized exams are not applicable for admission.

Regular Status

1) A baccalaureate degree must be in nursing from an institution accredited by the regional accreditation agency (or equivalent).

2) Completion of a three credit hour statistics course with a C (C- will not be accepted).

Conditional Status

Conditional status will be given to graduate nursing degree-seeking students per the published *Graduate Program* section of this catalog.

Non-Degree-Seeking Status

Non-degree seeking status will be given to students per the published *Graduate Program* section of this catalog. In addition to the published policies, students must have a bachelor's degree in nursing or be in the process of completing the degree to be accepted as a non-degree-seeking student.

Graduate Work Taken by Senior

Students are responsible for all policies as outlined in the *Graduate Program* section of this catalog.

Graduate Nursing Program Application Process

The following must be submitted to the nursing program prior to completing 12 graduate nursing course credits:

1) CSU-Pueblo Department of Nursing Master of Science with a major in Nursing Application.

2) Proof of a current Colorado Registered Nursing license or eligibility for license.

3) Certification in advanced Cardiac Life Support (ACLS) is required for all emphases. The Pediatric Advanced Life Support Certification (PALS) is also required for the Acute Care Nurse Practitioner Across the Life Span and the Adult Acute Care/ Family Nurse Practitioner.

4) Current physical examination within the last year and current immunization records. This includes the hepatitis B series, 2 step PPD, tetanus, and measles, mumps, and rubella series.

5) Three letters of recommendation: one academic, one clinical, and one other.

6) Admission essay that reflects the applicant's future practice goals in the role of an advanced practice nurse within the health care system and demonstrates the relevance of their graduate education. The paper should be supported by recent research, written in APA format, and should not exceed five pages. An essay guideline can be obtained through the Nursing Department.

7) Resume describing relevant work, professional, and volunteer experiences.

8) Proof of professional liability advanced practice insurance.

9) Criminal history background check clearances are required in Colorado. Any residency outside of the state of Colorado over the past three years must be verified by an official criminal history background check.

10) Drug screen must be completed after admission to the University.

11) Nursing application, paper guidelines, criminal background check, and health form can be obtained from the Colorado State University-Pueblo Department of Nursing.

Graduation Requirement

Graduate degrees will be granted to graduate nursing degree-seeking students who meet all of the published requirements plus the additional requirements below:

1) Students must have a cumulative graduate GPA of 3.000 or better at graduation. All courses must be passed with a B or better. Anything less than a B will not be applied toward graduation. A maximum number of nine semester hours of transfer credit may be applied to the degree. Grades of B- are not accepted.

2) Students must complete the program's minimum number of hours of approved course work.

3) Students must pass a final comprehensive and oral examination in their major area of study in the non-thesis option.

4) Students choosing the thesis option or directed research project must submit five approved copies of the thesis to the library for binding. The bound thesis will be distributed to each of the following: one to the program director/coordinator, two to the University Library, one to the committee chair, and one to the department. In addition an oral defense is required.

Acceptance of Transfer Credit

Transfer credit will be awarded per the published *Graduate Program* section of this catalog. Credit will be awarded for a course in which a grade of B or better was earned. Grades of B- are not accepted.

Time Limits

Courses completed five (5) or more years before the date of graduation, either at CSU-Pueblo or at some other institution, will not be accepted as satisfying graduation requirements without the approval of the student's graduate program coordinator and department chair. Full-time degree plans are provided in the following sections. Part-time degree plans are also available. Degree plans are developed by students and their graduate advisor or graduate program coordinator. All degree plans must be approved by the Student Affairs and Faculty Advocacy Committee.

Academic Standards

Students are responsible for all academic standards policies per the published *Graduate Program* section of this catalog. In addition to those policies, the following applies:

1) Only grades of A, B, and S fulfill graduation requirements for the nursing graduate program.

2) Courses in which a grade of B (not a B-) or better was earned may not be repeated and no course may be repeated more than once.

Master of Science with a Major in Nursing

Nursing Core Courses

All Master's students will complete the following core requirements for graduation, no matter the emphasis they choose. The credit hour ratio for clinical or lab is 1 credit hour to 4 contact hours. The core courses are offered in a hybrid format. The hybrid format involves on campus and Web based instruction. The core courses typically meet on campus every other week and include the following:

Fall

Courses	Titles	Credits (lecture-lab)
NSG 506	Roles, Policy & Issues	3(2.5-2)
NSG 508	Advanced Practice Theory	3(3-0)
NSG 592	Research	3(3-0)

Spring

Courses	Titles	Credits (lecture-lab)
NSG 552	Advanced Pathophysiology	3(3-0)
NSG 561	Advanced Pharmacology	3(3-0)
NSG 562	Advanced Assessment	3(2-4)

Core Nursing Courses ..... 18 total credits (16.5-6)

Nursing Synthesis of Knowledge Courses

All students must choose a method of synthesizing their knowledge either through applied research (thesis), assisting with faculty research (directed research), or through electives (non-thesis). Each emphasis has identified its minimum thesis or non-thesis requirements (see specific emphases). The synthesis of knowledge courses may be taken any time after completion of the core courses. For students choosing the non-thesis track, multiple electives are available. Students are to meet with their graduate advisor for planning their synthesis of knowledge options.

Thesis Option

Courses	Titles	Credits (lecture-lab)
NSG 593	Thesis Seminar	3(3-0)
NSG 599	Thesis (minimum of three credit hours required)	Varies

Non-Thesis Options*

Please choose a minimum of 6 credit hours from the courses below.

Courses	Titles	Credits (lecture-lab)
NSG 575	Curriculum Development	2(2-0)
NSG 576	Teaching & Instruction In Nursing	2(2-0)
NSG 571	Healthcare Informatics	3(3-0)
NSG 587	Synthesis Experience	9(3-24)

*Nine graduate credit hours can be transferred in from an accredited institution with approval of the graduate program coordinator.

Acute Care Nurse Practitioner Across the Lifespan Emphasis

The Acute Care Nurse Practitioner (ACNP) emphasis is unique in its focus on providing care across the lifespan. The typical ACNP program focuses on adults; however, because the ACNP provide care in settings such as emergency rooms and intensive care areas, the preparation and focus of this program is for the graduate to be able to provide care to patients of any age. This is an intensive program in which the full-time student is expected to complete the coursework and clinical experiences in six semesters. A minimum of 4 contact hours to 1 credit hour or 660 hours of clinical practice will be required to prepare graduates to manage acute health problems for patients across the lifespan. Clinical experiences will be provided with preceptors in a variety of acute care and community settings, which are selected to allow students to work in milieu devoted to particular patient groups, levels of care, or treatment modalities in which they have a desire to specialize. The graduate will meet the following requirements for the Acute Care Nurse Practitioner certification:

Summer

Courses	Titles	Credits (lecture-lab)
NSG 551	Health and Well Being	3(2-4)
NSG 550	Health Policy & Finance	3(3-0)

Fall

Courses	Titles	Credits (lecture-lab)
NSG 585	Acute/Chronic/Emergent Health Needs I	8(4-16)

Spring

Courses	Titles	Credits (lecture -lab)
NSG 588	Mgmt. of Pediatric Clients	4(2-8)

Summer

Courses	Titles	Credits (lecture-lab)
NSG 586	Acute/Chronic/Emergent Health Needs II	8(4-16)

ACNP

Core Courses.....18 total credits (16.5-6)

Synthesis of Knowledge..... 6 total credits

ACNP Courses..... 26 credit hours (15-44)

Total Credit Hours.....50 credit hours

Clinical Contact Hours...660 clinical contact hours

Lab Contact Hours .....90 lab contact hours

Adult Acute Care Nurse Practitioner Emphasis

The Adult Care Nurse Practitioner (AACNP) emphasis prepares student to provide care to adult clients. This is an intensive program in which the full-time student is expected to complete the coursework and clinical experiences in five semesters. A minimum of 540 hours of clinical practice are required to prepare graduates to manage acute health problems for adult clients. Clinical experiences are provided with preceptors in a variety of acute care settings, selected to allow students to work in milieus devoted to particular patient groups, levels of care, or treatment modalities in which they have a desire to specialize. The student will be able to take the Acute Care Nurse Practitioner certification. The following courses are required for this emphasis:

Summer

Courses	Titles	Credits (lecture-lab)
NSG 551	Health and Well Being	3(2-4)
NSG 550	Health Policy & Finance	3(3-0)
NSG 586	Acute/Chronic/Emergent Health Needs II	8(4-16)

Fall

Courses	Titles	Credits (lecture-Lab)
NSG 585	Acute/Chronic/Emergent Health Needs I	8(4-16)

AACNP

Core Courses ..... 18 total credits (16.5-6)

Synthesis of Knowledge .....6 total credits

AACNP Courses.....22 credit hours (13-36)

Total Credit Hours..... 46 credit hours

Clinical Contact Hours ..... 540 direct patient care contact hours

Lab Contact Hours..... 90 lab contact hours

Adult Acute Care/Family Nurse Practitioner Emphasis

The Adult Acute Care/Family Nurse Practitioner (AACNP/FNP) emphasis focuses on primary care and acute care, especially for rural and underserved populations. Graduates will be eligible for certification as an Acute Care Nurse Practitioner and a Family Nurse Practitioner through the American Nurses' Credentialing Center (ANCC) and/or the American Academy of Nurse Practitioners (AANP). Students are responsible for determining any additional requirements for certification and eligibility to practice in a state outside of Colorado.

This emphasis combines the theory courses for both Family Nurse Practitioner (FNP) and Adult Acute Care Nurse Practitioner (AACNP) emphases. In addition, the student who chooses this emphasis is required to take an additional 9 credit hours of Synthesis Experience (see below) to allow additional time for the primary care theory and application in primary care clinical settings. A minimum of 1020 hours of clinical practice will be required. The full-time student is expected to complete the following coursework and clinical experience in seven semesters:

Summer

Courses	Titles	Credits (lecture-lab)
NSG 551	Health and Well Being	3(2-4)
NSG 550	Health Policy & Finance	3(3-0)

Fall

Courses	Titles	Credits (lecture-lab)
NSG 585	Acute/Chronic/Emergent Health Needs I	8(4-16)

Spring

Courses	Titles	Credits (lecture-lab)
NSG 588	Mgmt. of Pediatric Clients	4(2-8)

Summer

Courses	Titles	Credits (lecture-lab)
NSG 586	Acute/Chronic/Emergent Health Needs II	8(4-16)

Fall

Courses	Titles	Credits (lecture-lab)
NSG 587	Synthesis Experience (Family)	9(3-24)

AACNP/FNP

Core Courses.....18 total credits (16.5-6)

Synthesis of Knowledge..... 6 total credits

AACNP/FNP Courses ..... 35 credit hours (18-68)

Total credit hours .....59 credit hours

Clinical Contact Hours.....1020 clinical direct patient care hours

Lab Contact Hours .....90 lab contact hours

Clinical Nurse Specialist Emphasis

The Clinical Nurse Specialist (CNS) emphasis explores human needs and interventions to achieve health and wellness. While the students' clinical work will focus on their particular clinical specialties, their learning is developed around a multi-theoretical human needs clinical model applicable to a variety of settings. Requirements for recognition as a CNS vary depending on state nurse practice acts, certification, and administrative regulations. Typically, minimum requirements include graduation from an accredited CNS program or equivalent in a defined area of specialty practice at the master's level and national certification in the specialty area. Thus, the CNS is developed based on the specialization's requirements for certification maintained by various credentialing bodies, such as the American Nurses' Credentialing Center (ANCC), or National League of Nursing, or other specialty-nursing organizations. Required courses include:

Basic Requirements

Core Courses .....18 total credits (16.5-6)

Synthesis of Knowledge ..... 6 total credits

Courses	Titles	Credits (lecture-lab)
NSG 587	Synthesis Experience	9(3-24)

Total Credit Hours 33

Sample Program Plans

CNS: Nurse Educator

Fall

Courses	Titles	Credits (lecture-lab)
NSG 506	Roles, Policy & Issues	3(2.5-2)
NSG 508	Advanced Practice Theory	3(3-0)
NSG 592	Research	3(3-0)

Spring

Courses	Titles	Credits (lecture-lab)
NSG 552	Advanced Pathophysiology	3(3-0)
NSG 561	Advanced Pharmacology	3(3-0)
NSG 562	Advanced Assessment	3(2-4)
NSG 593	Thesis Seminar	3(3-0)

Summer

Courses	Titles	Credits (lecture-lab)
NSG 551	Health & Well Being	3(2-4)
NSG 575	Curriculum Development	2(2-0)
NSG 576	Teaching & Instruction in NSG	2(2-0)
NSG 571	Healthcare Informatics	3(3-0)
NSG 599	Thesis	3(3-0)

Fall

Courses	Titles	Credits (lecture-lab)
NSG 587	Synthesis Experience	9(3-24)

Core Courses ..... 18 total credits (16.5-6)

Synthesis of Knowledge ..... 6 total credits (must take thesis option)

CNS Courses ..... 19 credit hours (12-28)

Total Credit Hours 43

***Clinical Contact Hours 420**

Lab Contact Hours 90

*National League for Nursing Nurse Educator Certification does not require a minimum clinical contact hours.

CNS: Psychiatric Mental Health

Fall

Courses	Titles	Credits (lecture-lab)
NSG 506	Roles, Policy & Issues	3(2.5-2)
NSG 508	Advanced Practice Theory	3(3-0)
NSG 592	Research	3(3-0)

Spring

Courses	Titles	Credits (lecture-lab)
NSG 552	Advanced Pathophysiology	3(3-0)
NSG 561	Advanced Pharmacology	3(3-0)
NSG 562	Advanced Assessment	3(2-4)
NSG 593	Thesis Seminar	3(3-0)

Summer

Courses	Titles	Credits (lecture-lab)
NSG 587	Synthesis Experience	9(3-24)
NSG 551	Health & Well Being	3(2-4)
NSG 599	Thesis	3(3-0)

Fall

Courses	Titles	Credits (lecture-lab)
NSG 587	Synthesis Experience	9(3-24)

Core Courses ..... 18 total credits (16.5-6)

Synthesis of Knowledge ..... 6 total credits (must take thesis option)

CNS Courses ..... 21 credit hours (8-52)

Total Credit Hours 45

Clinical Contact Hours 780

Lab Contact Hours 90

Post Masters Certification

Students seeking post masters certification in the program who already have a nursing graduate degree are evaluated on an individual basis. Their plan of study is based on their academic credentials, according to the Colorado State University-Pueblo Catalog. The student must complete 15 postgraduate credit hours. The student's plan is developed based on the academic course work already completed.

Typically, non-clinical graduate nursing degrees do not have the three prescriptive privilege courses (advanced pharmacology, advanced health assessment, and advanced pathophysiology). As a result, their understanding of the role of the nurse practitioner is incomplete. They usually need to complete the clinical hours and didactic specific to their track. Therefore, students electing to take the post masters certification who do not have a clinical nursing degree must take the following courses for the Acute Care Nurse Practitioner Across the Lifespan Emphasis:

Courses	Titles	Credits (lecture - lab)
NSG 506	Roles, Policy & Issues	3(2.5-2)
NSG 552	Advanced Pathophysiology	3(3-0)
NSG 561	Advanced Pharmacology	3(3-0)
NSG 562	Advanced Assessment	3(2-4)
NSG 551	Health and Well Being	3(2-4)
NSG 585	Acute/Chronic/Emergent Health Needs I	8(4-16)
NSG 586	Acute/Chronic/Emergent Health Needs II	8(4-16)
NSG 588	Mgmt. of Pediatric Clients	4(2-8)

In addition to the above courses, students who are seeking the dual track AACNP/FNP post masters certification must take NSG 587 (Synthesis Experience) courses with 3 credit hours of didactic and 24 contact lab/per week of direct patient care.

Students holding a nurse practitioner degree who have prescriptive privileges in the State of Colorado and who are seeking post masters certification as an Adult Acute Care Nurse Practitioner must complete the following courses: (Clinical time is primarily spent in the acute care setting, grand rounds, specializations, and a minimum of 540 clinical hours.)

Courses	Titles	Credits (lecture-lab)
NSG 585	Acute/Chronic/Emergent Health Needs I	8(4-16)
NSG 586	Acute/Chronic/Emergent Health Needs II	8(4-16)

A post masters certification in a specific clinical nurse specialization can be developed on an individual basis considering the certification requirements set forth by national certification and national organization. The student typically completes a minimum of 500 clinical credit hours excluding the nurse educator.

COLLEGE OF EDUCATION, ENGINEERING, AND PROFESSIONAL STUDIES

Dr. Hector Carrasco, Dean

Academic Departments

Automotive Industry Management and Facilities Management and Technology Studies

Major: Automotive Industry Management (BS)

Minor: Automotive Industry Management

Engineering

Majors: Engineering (BSE)
Industrial Engineering (BSIE)
Industrial and Systems Engineering (MS)
(See *Graduate Programs* section of catalog.)

Minors: Engineering
Industrial Engineering

Engineering Technology

Major: Civil Engineering Technology (BSCET)

Exercise Science, Health Promotion, and Recreation

Major: Exercise Science, Health Promotion and Recreation (BS)

Emphasis Areas:
Athletic Training
Community/Commercial Recreation
General Exercise Science
Health Promotion/ Wellness
K-12 Physical Education Teacher Preparation
Outdoor Adventure Leadership

Minors: Coaching
Exercise Science and Health Promotion
Recreation

Nursing

Major: Nursing (BSN)
Nursing (MS)
(See *Graduate Programs* section of catalog.)

Teacher Education

Licensure Areas: Elementary
Secondary
K-12

Minors: Education
Reading

Mission

The College of Education, Engineering, and Professional Studies degree programs reflect Colorado State University-Pueblo's professional focus and are designed to prepare graduates for positions in industry, education, business, and governmental agencies.

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

Mission objectives:

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

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

DEPARTMENT OF AUTOMOTIVE INDUSTRY MANAGEMENT AND FACILITIES MANAGEMENT AND TECHNOLOGY STUDIES

Department Chair: Ronald Darby

AUTOMOTIVE INDUSTRY MANAGEMENT PROGRAM

Faculty: Darby, Robbe, Sefcovic

The major in automotive industry management leads to a Bachelor of Science (BS) Degree and is designed to prepare its students for automotive industry management careers by providing automotive management skills, supported by the business and technical background requisite for success in the automotive industry. The curriculum emphasizes personnel supervision, financial analysis, customer relations, warranty administration, sales promotions, techniques of technical problem-solving, service management, marketing, merchandising and distribution methods used by the automotive aftermarket, automotive manufacturer and import industries.

Program Goals

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

Expected Student Outcomes

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

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

General Requirements for the AIM Program

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

Specific Requirements for the AIM Major

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

Other Required Courses

Courses		Titles	Credits
ACCTG	201	Principles of Financial Acctg	3
ACCTG	202	Principles of Managerial Acctg	3
BUSAD	302	Ethical Issues	3
CIS Course(s) as per advisement			2
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
FIN	330	Principles of Finance	3
MGMT	201	Principles of Management	3
MGMT	311	Operations and Quality Management	3
MGMT	318	Human Resource Management	3
MKTG	340	Principles of Marketing	3
MATH	156	Intro to Statistics	3
SPCOM	103	Speaking and Listening	3
		TOTAL	38

AIM majors are required to complete the business courses required by the major but not included in the BUSAD minor with a grade point average of 2.0 (C).

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 AIM Minor

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

Outcomes Assessment Activities

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

FACILITIES MANAGEMENT AND TECHNOLOGY STUDIES

Program Coordinator: Ron Darby
Faculty: TBA

A Bachelor of Science in Facilities Management and Technology Studies (FMTS) is currently offered; but no new students will be admitted to the program after February 2005.

Students currently enrolled in this program have until May 2008 to complete their major courses (courses with an FMTS prefix). Questions should be directed to the Program Coordinator.

DEPARTMENT OF ENGINEERING

Department Chair: Jane M. Fraser

Faculty: Carrasco, DePalma, Fraser, Jaksic, Sarper, Sinkhorn

The Department of Engineering offers the following engineering programs:

- The Bachelor of Science in Engineering with a Mechatronics specialization (BSE-Mechatronics),
- The Bachelor of Science in Industrial Engineering (BSIE),
- The Master of Science in Industrial and Systems Engineering (MS),
- The Pre Engineering program,
- The Minor in Engineering, and
- The Minor in Industrial Engineering.

The BSE-Mechatronics is a 4-year program that can be completed at CSU-Pueblo. The program began in Fall 2005 and the first students will graduate from the program in Spring 2008. Mechatronics combines mechanical and electrical engineering with computers to create devices that make our lives better. Electrical

and mechanical systems, controlled by computers, are at the core of a wide range of processes and products. Robots, the Mars Rover, a heart-lung machine, a computer controlled telescope, and a nano-scale microscope are all examples of mechatronics. The BS in Engineering with specialization in mechatronics is a flexible, broad degree that prepares graduates to work in many industries.

The BSIE is a 4-year program that can be completed at CSU-Pueblo. The 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. 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 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.

A student can receive the BSE-Mechatronics and BSIE degree simultaneously by taking 30 additional credit hours over one degree alone, including a second senior design project.

For more information on the MS degree with a major in Industrial and Systems Engineering, see the *Graduate Studies* section of this catalog.

In the Pre-Engineering program, students seeking to major in some area of engineering other than industrial engineering or engineering with a mechatronics specialization (for example, civil, electrical, or mechanical engineering) can complete at least 60 credits that will transfer to other engineering schools.

The Department of Engineering has found that transfer students are very successful in our programs and we welcome transfer students. About half our graduates began their degrees at other institutions.

BSE-MECHATRONICS

BSE-Mechatronics Program Outcomes

The BSE-Mechatronics program is designed so that students graduate from the program with the following abilities and knowledge:

- An ability to apply knowledge of mathematics, science, and engineering,
- An ability to design and conduct experiments, as well as to analyze and interpret data,
- An ability to design a system, component, or process to meet desired needs,
- An ability to function on and lead multi-disciplinary teams,
- An ability to identify, formulate, and solve engineering problems,
- An understanding of professional and ethical responsibility,
- An ability to communicate effectively,
- The broad education necessary to understand the impact of engineering solutions in a global and societal context,
- A recognition of the need for, and an ability to engage in life-long learning,
- A knowledge of contemporary issues, and
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

BSE-Mechatronics Educational Objectives

During the first few years after graduation, BSE-Mechatronic graduates should be able:

- Conduct low-level designs and modifications of mechatronic systems,
- Trouble shoot and support existing mechatronic systems,
- Work directly with suppliers and customers of mechatronic systems,

- Manage small and support large engineering projects,
- Assume ownership and accountability for engineering projects,
- Function well on teams of engineers with different skill levels,
- Implement basic quality control principles,
- Write sound technical documents such as requests for proposals, grant applications, project specifications and technical reports,
- Continue their education at the graduate level, and
- Obtain additional engineering certifications.

Specific Requirements for the BSE-Mechatronics Degree

EN Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	231/L	Circuit Analysis/Lab	5
EN	260	Basic Electronics	2
EN	263	Electromechanical Devices	3
EN	321	Thermodynamics I	3
EN	324/L	Materials Science & Engr/Lab	4
EN	343	Engineering Economy	3
EN	360	Control Systems I	3
EN	361	Digital Electronics	4
EN	362	Introduction to Mechatronics	3
EN	363	Virtual Machine Design	3
EN	365	Stochastic Systems Engineering	4
EN	430	Project Planning and Control	3
EN	441	Engineering of Manufacturing Process	4
EN	443	Quality Control & Reliability	3
EN	460	Control Systems II	3
EN	462	Industrial Robotics	3
EN	473	Computer Integrated Manufacturing	3
EN	488	Engineering Design Project	3
EN	493	Senior Seminar	2
Technical Electives			6
		TOTAL	80

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
MATH	207	Matrix & Vector Algebra with Applications	2
MATH	337	Differential Equations I	3
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
ENG	101	Composition I	3
ENG	102	Composition II	3
SPCOM	103	Speaking and Listening	3
General Education			15
		TOTAL	49

DEGREE TOTAL 129

Technical electives must be chosen from an approved list or have the approval of an Engineering advisor. General Education courses must include depth in some area.

Typical Schedule of Courses for the BSE-Mechatronics Degree

Freshman Year

Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
ENG	101	Composition I	3
ENG	102	Composition II	3
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
PHYS	221/L	General Physics I/Lab	5
General Education			3
		TOTAL	31

Sophomore Year

Courses		Titles	Credits
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	231/L	Circuit Analysis I/Lab	5
EN	260	Basic Electronics	2
EN	263	Electromechanical Devices	3
EN	324/L	Material Science & Engr/Lab	4
MATH	207	Matrix & Vector Algebra with Applications	2
MATH	337	Differential Equations I	3
PHYS	222/L	General Physics II/Lab	5
		TOTAL	30

Junior Year

Courses		Titles	Credits
EN	321	Thermodynamics	3
EN	343	Engineering Economy	3
EN	360	Control Systems I	3
EN	361	Digital Electronics	4
EN	362	Introduction to Mechatronics	3
EN	363	Virtual Machine Design	3
EN	365	Stochastic Systems Engineering	4
EN	441	Manufacturing Processes	4
EN	443	Quality Control & Reliability	3
SPCOM	103	Speaking and Listening	3
		TOTAL	33

Senior Year

Courses		Titles	Credits
EN	430	Project Planning & Control	3
EN	460	Control Systems II	3
EN	462	Industrial Robotics	3
EN	473	Computer Integrated Manufacturing	3
EN	488	Engineering Design Project	3
EN	493	Senior Seminar	2
Technical Electives			6
General Education			12
		TOTAL	35

BSIE

The BSIE program has the following educational objectives and outcomes, which have been approved and are reviewed regularly by the BSIE Advisory Board.

BSIE Program Outcomes

The BSIE program is designed so that students graduate from the program with the following abilities and knowledge:

- An ability to apply knowledge of mathematics, science, and engineering,
- An ability to design and conduct experiments, as well as to analyze and interpret data,
- An ability to design a system, component, or process to meet desired needs,
- An ability to function on and lead multi-disciplinary teams,
- An ability to identify, formulate, and solve engineering problems,
- An understanding of professional and ethical responsibility,
- An ability to communicate effectively,
- The broad education necessary to understand the impact of engineering solutions in a global and societal context,
- A recognition of the need for, and an ability to engage in life-long learning,
- A knowledge of contemporary issues,
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- An ability to design systems (such as production, supply chain, quality control, and manufacturing systems) to achieve high efficiency, quality, and safety, and
- An ability to identify and implement improvements to methods, procedures, equipment, and workflow to increase efficiency, quality, and safety.

BSIE Educational Objectives:

During the first few years after graduation, BSIE graduates should be able to:

- Identify root causes of symptoms and fix problems in situations where data and resources may be lacking and multiple problems may exist,
- Function well on teams of engineers with different skill levels,
- Obtain jobs of increasing responsibility applying industrial engineering skills and knowledge to a wide range of problems in a wide range of industries,
- Continue their education, for example, in MS, PhD, and MBA programs,
- Obtain additional certifications, such as Professional Engineer, Six Sigma Black Belt, or Certified Manufacturing Engineer, and
- Achieve management positions.

Specific Requirements for the BSIE Degree

EN Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	215	Intro to Indus & Sys Engineering	3
EN	231/L	Circuit Analysis/Lab	5
EN	321	Thermodynamics	3
EN	324/L	Materials Science & Engr/Lab	4
EN	343	Engineering Economy	3
EN	365	Stochastic Systems Engineering	4
EN	420	Simulation Experiments	4
EN	430	Project Planning	3
EN	439	Time and Motion Studies	2
EN	440	Safety Engineering	3
EN	441	Manufacturing Processes	4
EN	443	Quality Control and 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	Engineering Design Projects	3
EN	493	Senior Seminar	2
Technical Electives			6
		TOTAL	77

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geometry I	5
MATH	207	Matrix & Vector Algebra with Applications	2
MATH	224	Calculus and Analytic Geometry II	5
MATH	337	Differential Equations I	3
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
ENG	101	Composition I	3
ENG	102	Composition II	3
SPCOM	103	Speaking and Listening	3
General Education			15
		TOTAL	49

DEGREE TOTAL 126

Technical electives must be chosen from an approved list or have the approval of an Engineering advisor. General Education courses must include depth in some area.

Typical Schedule of Courses for the BSIE Degree

Freshman Year

Course		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
ENG	101	Composition I	3
ENG	102	Composition II	3
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
PHYS	221/L	General Physics I/Lab	5
General Education			3
		TOTAL	31

Sophomore Year

Courses		Titles	Credits
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	215	Intro to Indus & Sys Engineering	3
EN	231/L	Circuit Analysis/Lab	5
EN	324/L	Materials Science & Engr/Lab	4
PHYS	222/L	General Physics II/Lab	5
MATH	207	Matrix & Vector Algebra with Applications	2
MATH	337	Differential Equations I	3
SPCOM	103	Speaking & Listening	3
General Education			3
		TOTAL	34

Junior Year

Courses		Titles	Credits
EN	321	Thermodynamics I	3
EN	343	Engineering Economy	3
EN	365	Stochastic Systems Engineering	4
EN	420	Simulation Experiments	4
EN	439	Time and Motion Studies	2
EN	441	Manufacturing Processes	4
EN	443	Quality Control and Reliability	3
EN	471	Operations Research	3
General Education			3
Technical Elective			3
		TOTAL	32

Senior Year

Courses		Titles	Credits
EN	430	Project Planning and Control	3
EN	440	Safety Engineering	3
EN	473	Computer Integrated Manufacturing	3
EN	475	Facilities Planning and Design	3
EN	477	Operations Planning and Control	3
EN	488	Engineering Design Projects	3
EN	493	Senior Seminar	2
Technical Electives			3
General Education			6
		TOTAL	29

PRE-ENGINEERING PROGRAM

Students seeking to major in some area of engineering other than mechatronics or industrial engineering (for example, civil, electrical, or mechanical engineering) can complete at least 60 credits (two years) of courses that will transfer to other engineering schools. The courses should be selected in consultation with an Engineering faculty member and an advisor at the school to which the student plans to transfer. Generally recommended courses for a student planning to transfer to another engineering school include:

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab	5
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
MATH	337	Differential Equations I	3
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
EN	101	Problem Solving for Engineers	4
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	231/L	Circuit Analysis/Lab	5
EN	321	Thermodynamics I	3
EN	324/L	Materials Science & Engr/Lab	4
Humanities, Social Sciences & History courses			

A student who intends to transfer elsewhere and then decides to stay at CSU-Pueblo will be able to count all of the above courses toward the BSE-Mechatronics or the BSIE.

MINOR IN ENGINEERING

The Engineering minor is appropriate for students who want to add knowledge of engineering to their study of a technical field, such as chemistry, mathematics, or physics. The courses in the minor have prerequisites (calculus and physics) that are not listed below.

Specific Requirements for the Minor in Engineering

Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	213/L	Circuit Analysis I/Lab	5
EN	321	Thermodynamics	3
EN	343	Engineering Economy	3
		TOTAL	24

MINOR IN INDUSTRIAL ENGINEERING

The minor in Industrial Engineering is appropriate for students who want to add considerations of efficiency, quality and safety to their study of a technical field, such as chemistry, mathematics, or physics. Some of the courses in the minor have prerequisites (calculus and physics) that are not listed below.

Specific Requirements for the Minor in Industrial Engineering

Courses		Titles	Credits
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	215	Intro to Indus & Sys Engineering	3
EN	343	Engineering Economy	3
PLUS three of the following:			
EN	420	Simulation Experiments	4
EN	439	Time and Motion Studies	2
EN	440	Safety Engineering	3
EN	441	Manufacturing Processes	4
EN	443	Quality Control and 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	21-24

Outcomes Assessment Activities

The BSE-Mechatronics and BSIE programs and the courses in each program are designed to support the Program Outcomes listed for each degree. Each program has an Advisory Board that meets annually and the input from those Boards is used to revise the

programs. The Department also uses the following assessment activities:

- During the final semester of study, all engineering students are required to demonstrate their ability to apply and integrate the skills and knowledge learned in the program by producing a capstone engineering design project. This project must incorporate subject material covered in two or more courses in the student's major, involve knowledge or skill not learned in a class thus demonstrating the student's ability to engage in life long learning, involve reflection on the impact of the proposed solution in a global and societal context, and be presented in written and oral reports to demonstrate the student's communication skills.

- All senior engineering studies are required to take the Fundamentals of Engineering (FE) 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 affect GPA or graduation.

DEPARTMENT OF ENGINEERING TECHNOLOGY

Department Chair: Wolfgang Sauer

CIVIL ENGINEERING TECHNOLOGY PROGRAM

Program Coordinator: Sylvester A. Kalevela

Faculty: Hirth, Kalevela, Mincic

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 ET programs.

- Civil engineering technology majors are required to demonstrate the ability to solve problems appropriate to their discipline, acquire computer skills, and to complete a final senior-year technical project requiring an oral and written presentation.

Specific Requirements for the CET Major

It is expected that CET graduates should have the appropriate skills and knowledge regarding surveying and drafting. In addition, they should have a knowledge of basic construction materials along with the fundamentals of statics, strength of materials, hydraulics, structural analysis and design.

This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 050, Baltimore, MD 21202, Telephone: (410) 347-7700.

Engineering Technology Core Courses

Courses		Titles	Credits
ET	101	Introduction to Engineering Technology	2
ET	202	Statics	3
ET	206	Strengths of Materials	4
ET	300	Project Planning, Scheduling and Management	3
		TOTAL	12

Civil Engineering Technology Courses

Courses		Titles	Credits
CET	102	Surveying I	3
CET	103	Surveying II	3
CET	115	Civil Drafting I	3
CET	116	Civil Drafting II	3
CET	203	Dynamics	1
CET	207	Construction Materials & Methods	3
CET	208	Concrete & Asphalt Materials	3
CET	215	Advanced Surveying I	3
CET	304	Construction Cost Estimating I	3
CET	305	Construction Cost Estimating II	3
CET	315	Soil Mechanics Technology	3
CET	316	Structural Analysis	3
CET	404	Structural Steel Design	3
CET	405	Reinforced Concrete Design	3
CET	411	Hydraulics	3
CET	455	Design Seminar	1
CET	456	Senior Project	3
Approved CET Electives			6
Approved Technical Electives			6
		TOTAL	56

Math, Science and Computer Courses

Courses		Titles	Credits
CIS	100	Intro to Word & Windows	1
CIS	104	Excel Spreadsheets	1
ET	226	Intro to Programming	2
CHEM	111	Principles of Chemistry OR	
GEOL	101	Earth Science	3
MATH	121	College Algebra	4
MATH	124	Pre-Calculus Math	5
MATH	126	Calculus & Analytic Geometry I	5
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	202/L	Principles of Physics II/Lab	4
		TOTAL	29

Institutional and General Education

Please refer to the General Education Requirements in the undergraduate section of this catalog. For the knowledge component, CET majors need to take nine credits (three courses) each in the areas of Humanities (including SPCOM 103) and Social Sciences (including History). No additional courses are needed for Science and Technology.

Co-curricular Requirements

The faculty supports and encourages the involvement of engineering technology majors in at least one technical organization specific to each discipline and actively encourages student participation in such organizations.

Outcomes Assessment Activities

- To be eligible for graduation, all civil engineering technology majors are required to take an examination. The results of the examination will be used in the evaluation of the program. Test results will have no effect on student's GPA.

- Graduates and their employers will be surveyed as to program satisfaction and job performance following their graduation.

Civil Engineering Technology Typical Schedule of Courses

Freshman - Fall

Courses		Titles	Credits
CET	102	Surveying I	3
CET	115	Civil Drafting I	3
CIS	100	Intro to Word & Windows	1
CIS	104	Excel Spreadsheets	1
ET	101	Introduction to Engineering Tech	2
MATH	121	College Algebra	4
		TOTAL	14

Freshman - Spring

Courses		Titles	Credits
CET	103	Surveying II	3
CET	116	Civil Drafting II	3
ENG	101	Composition I	3
MATH	124	Pre-Calculus Math	5
General Education, Knowledge Component			3
		TOTAL	17

Sophomore - Fall

Courses		Titles	Credits
CET	203	Dynamics	1
CET	207	Construction Materials & Methods	3
CET	215/216	Advanced Surveying I or II	3
ET	202	Statics	3
MATH	126	Calculus and Analytic Geometry I	5
		TOTAL	15

Sophomore - Spring

Courses		Titles	Credits
CET	208	Concrete and Asphalt Materials	3
ET	206	Strength of Materials	4
ENG	102	Composition II	3
SPCOM	103	Speaking and Listening	3
General Education, Knowledge Component			3
		TOTAL	16

Junior - Fall

Courses		Titles	Credits
CET	304	Construction Cost Estimating I	3
CET	316	Structural Analysis	3
CHEM	111	Principles of Chemistry	
		OR	
GEOL	101	Earth Sciences	3
PHYS	201/L	Physics I w/Lab	4
General Education, Knowledge Component			3
		TOTAL	16

Junior - Spring

Courses		Titles	Credits
CET	305	Construction Cost Estimating II	3
CET	404	Structural Steel Design	3
ET	300	Project Planning, Scheduling & Management	3
PHYS	202/L	Physics II w/Lab	4
General Education, Knowledge Component			3
		TOTAL	16

Senior - Fall

Courses		Titles	Credits
ET	226	Introduction to Programming	2
CET	405	Reinforced Concrete Design	3
CET	411	Hydraulics	3
CET	455	Design Seminar	1
CET Elective			3
General Education, Knowledge Component			3
		TOTAL	15

Senior - Spring

Courses		Titles	Credits
CET	315	Soil Mechanics Technology	3
CET	456	Senior Project	3
CET Elective			3
Technical Elective			3
Technical Elective			3
		TOTAL	15

Total required credit hours 124

MECHANICAL ENGINEERING TECHNOLOGY PROGRAM

Department Chair: Wolfgang Sauer

Faculty: Bailey, Sauer

A Bachelor of Science Degree in Mechanical Engineering Technology (BSMET) and a minor in MET are currently offered; but no new students will be admitted to the program major or minor.

Students currently enrolled in the MET major or minor program have four years to complete their program.

Program Goals

- To prepare graduates in mechanical engineering technology to function effectively throughout the engineering spectrum.
- To graduate students who can apply to theoretical foundations and skills of their discipline to solve practical engineering problems by using existing technology.
- To maintain accreditation for all programs as defined by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Expected Student Outcomes

General Requirements

- Graduates are required to complete an approved program of study with a cumulative GPA of 2.000 or better in their major courses.
- Graduates are required to demonstrate skill and knowledge in the areas of quantitative analysis and science by having a cumulative GPA of 2.000 or better in the mathematics/physics, and chemistry courses.
- All mechanical engineering technology majors are required to demonstrate the ability to solve problems appropriate to their discipline, to use computer skills and to complete a final senior-year technical project requiring design and fabrication of a working model followed by written and oral presentations.
- All mechanical engineering technology majors are required to study at least one computer language and to demonstrate their knowledge by applying computer programs to their daily class problems.

Specific Requirements for the MET Major

MET majors will obtain a knowledge of drafting, computer-aided design, materials, fluids, thermodynamics, all phases of manufacturing, robotics, and the design process. This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 050, Baltimore, MD 21202, Telephone: (410) 347-7700.

Engineering Technology Core Courses

Courses		Titles	Credits
ET	101	Introduction to Engineering Technology	2
ET	202	Statics	3
ET	206	Strengths of Materials	4
ET	300	Project Planning, Scheduling and Management	3
		SUB-TOTAL	12

Mechanical Engineering Technology Courses

Courses		Titles	Credits
MET	105	It's a Material World	4
MET	112	Mechanical Drafting (CAD)	3
MET	203	Manufacturing Processes I	4
MET	204	Manufacturing Processes II	3
MET	311	Quality Control	3
MET	322	Dynamics of Machinery	3
MET	341	Thermal and Fluid Principles I	3
MET	352	Design of Machine Elements	3
MET	356	Design Seminar	1
MET	361	Computer Integrated Manufacturing	3
MET	441	Thermal and Fluid Principles II	3
MET	442	Design of Energy Systems	3
MET	456	Senior Project	3
MET	460	Instrumentation and Control	3
Approved MET Electives			6
Approved Technical Electives			6
		SUB-TOTAL	54

Math, Science and Computer Courses

Courses		Titles	Credits
CHEM	111/L	Principles of Chemistry/Lab	4
CIS	100	Intro to Word & Windows	1
CIS	104	Excel Spreadsheets	1
EET	250	Electrical Fundamentals and Applications	4
ET	226	Introduction to Programming	2
MATH	121	College Algebra	4
MATH	124	Pre-Calculus Math	5
MATH	126	Calculus & Analytic Geometry I	5
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	202/L	Principle of Physics II/Lab	4
		SUB-TOTAL	34

Institutional and General Education

Please refer to the General Education Requirements in the undergraduate section of this catalog. For the knowledge component, MET majors need to take nine credits (three courses) each in the areas of Humanities (includes SPCOM 103) and Social Sciences (includes History). No additional courses are needed in Science and Technology.

Outcomes Assessment Activities

- To be eligible for graduation, all mechanical engineering technology majors are required to take an examination. The results of the examination will be used in the evaluation of the program. The results for individual students will be kept in strict confidence; however, any individual student can obtain her/his results for advisory purposes. Test results will have no effect on student's GPA.

- Graduates and their employers will be surveyed as to program satisfaction and job performance during the first, third and fifth years following graduation.

Mechanical Engineering Technology Typical Schedule of Courses

Freshman - Fall

Courses		Titles	Credits
CIS	100	Intro to Word & Windows	1
CIS	104	Excel Spreadsheets	1
ENG	101	Composition I	3
ET	101	Introduction to Engineering Tech.	2
MATH	121	College Algebra	4
MET	105	It's a Material World	4
		TOTAL	15

Freshman - Spring

Courses		Titles	Credits
CHEM	111/L	Principles of Chemistry	4
ENG	102	Composition II	3
MATH	124	Pre-Calculus Math	5
MET	112	Computer-Aided Drafting	3
SPCOM	103	Speaking and Listening	3
		TOTAL	18

Sophomore - Fall

Courses		Titles	Credits
ET	202	Statics	3
ET	226	Introduction to Programming	2
MATH	126	Calculus & Analytic Geometry I	5
MET	203	Manufacturing Processes I	4
PHYS	201/L	Physics I w/Lab	4
		TOTAL	18

Sophomore - Spring

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

Junior - Fall

Courses		Titles	Credits
EET	250	Electrical Fundamentals	4
MET	322	Dynamics of Machinery	3
MET	341	Thermal and Fluids Principles I	3
MET	352	Design of Machine Elements	3
General Education, Knowledge Component			3
		TOTAL	16

Junior - Spring

Courses		Titles	Credits
ET	300	Project Planning, Scheduling and Management	3
MET	311	Quality Control	3
MET	356	Basic Design Principles	2
MET	441	Thermal and Fluids Principles II	3
Technical Elective			3
General Education, Knowledge Component			3
		TOTAL	17

Senior - Fall

Courses		Titles	Credits
MET	442	Design of Energy Systems	2
MET	456	Senior Project	3
MET	460	Instrumentation and Control	3
MET Elective			3
General Education, Knowledge Component			3
		TOTAL	14

Senior - Spring

Courses		Titles	Credits
MET	361	Computer Integrated Manufacturing	3
MET Elective			3
Technical Elective			3
General Education, Knowledge Component			3
		TOTAL	12

Total required credit hours.....124

MET MINOR

A minor in MET is currently offered; but no new students are being accepted into the minor program.

The MET minor is designed for students in the math, science, and technical areas of study. Their background in math and physics is essential to

understanding the technical courses. Students from other areas of study may have to take additional courses in math and physics.

Mechanical Engineering Technology Core:

Courses		Titles	Credits
ET	202	Statics	3
ET	206	Strength of Materials	4
MET	105	It's a Material World	4
MET	112	Computer-aided Drafting	3
MET	203	Manufacturing Processes I	4
MET Elective			3
		SUB-TOTAL	21

This curriculum gives the student a background in materials, structures, manufacturing, and one course to fit the student's interest and aspirations.

EXERCISE SCIENCE, HEALTH PROMOTION, AND RECREATION DEPARTMENT

Department Chair: Foust
Faculty: L. Clark, R. Clark, Conroy, Dallam, Rochester, Smith, Stuyt

The mission of the Department of Exercise Science, Health Promotion, and Recreation is to prepare students for professional positions and leadership roles in Exercise Science, Health Promotion, and Recreation through experiential educational opportunities that promote wellness and healthy lifestyles. Graduates earn a Bachelor of Science degree in Exercise Science, Health Promotion, and Recreation (EXHPR).

The BS in Exercise Science, Health Promotion, and Recreation (EXHPR) program currently includes six emphases of study:

- Athletic Training
- General Exercise Science
- Health Promotion Wellness
- Physical Education K-12 Teacher Preparation
- Community/Commercial Recreation
- Outdoor Adventure Leadership

Department Goals

- 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 related to the promotion of wellness and healthy lifestyles.
- Provide effective professional learning opportunities based on the following concepts: Information Retrieval, Conceptual Understanding, Information Analysis, Critical Thinking, Development of Relevant Skill, and Practical Application of Ideas.
- Prepare students to be life-long learners and to enhance the well-being of the community they dwell in.
- Prepare students to become productive, accountable, ethical, and responsible professionals.
- Prepare students to enter graduate or professional schools.

Expected Student Outcomes

General Requirements:

All departmental Majors are required to:

- Complete an emphasis 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; and
- Earn a cumulative GPA of 2.0 or higher in required English and speech communication courses.

Exercise Science and Health Promotion graduates are expected to:

- Demonstrate understanding of the philosophy and historical basis of the disciplines of exercise science and health promotion;
- Exhibit the ability to read and interpret scientific journal articles in exercise science and health promotion with an understanding of the scientific methods, statistics, and design of the studies;

- Exhibit knowledge of the structure and function of the human organism both at rest and during movement;

- Display knowledge and skill related to first aid and the care/prevention of injuries occurring during physical activity;

- Demonstrate skills and knowledge germane to exercise assessment, programming and leadership;

- Exhibit knowledge in the basic principles of health with emphasis on the application of nutrition and personal fitness concepts in attaining personal wellness; and

- Exhibit knowledge of the underlying kinesiological principles governing human movement.

Upon completion of the EXHP core program requirements, a student will be eligible to sit for a variety of nationally recognized certification exams including those offered by the American College of Sports Medicine ("Health/Fitness Instructor", "Personal Trainer", and Exercise Leader"), the American Council on Exercise ("Personal Trainer", and "Aerobics Instructor"), the Aerobics and Fitness Association of America ("Personal Trainer", and "Aerobics Instructor"), the National Strength and Conditioning Association ("Certified Strength and Conditioning Specialist").

The BS degree in EXHPR prepares program graduates for professional positions in worksite, clinical, school, fitness government and community settings.

- Graduates of the Athletic Training emphasis who also complete appropriate clinical experience can sit for the National Athletic Trainers' Association Board of Certification (NATABOC) exam to become a certified Athletic Trainer. Athletic Trainers are employed in high school, university/ college, clinical, corporate, professional sports, and military settings.

- Graduates of the General Exercise Science coursework are prepared for exercise and fitness related professional positions. This emphasis is an excellent selection for students preparing for advanced study in fields such as exercise physiology, allied health, or sport administration.

- Graduates of the Health Promotion/Wellness emphasis are eligible to sit for the National Commission for Health Education Credentialing exam to become a Certified Health Education Specialist. Health Promotion/Wellness graduates can find employment in employee wellness, community health, government and volunteer health agencies, clinical and managed care settings.

- Graduates of the Physical Education K-12 Teacher Preparation emphasis who also complete the Teacher Education program, and receive a passing score on the Colorado Department of Education P.L.A.C.E. test are eligible to receive Teacher Licensure in the State of Colorado. Licensed graduates can find physical education teaching positions in both the public and private school settings.

Two minors are currently available in Exercise Science and Health Promotion.

- The Exercise Science and Health Promotion minor is available to non-EXHP majors. This minor is ideal for Biology majors in the pre-physical therapy, pre-medicine, or pre-chiropractic emphasis areas of study or any student interested in Exercise Science and Health Promotion.

- The Coaching minor is also available to all students and is a great choice for students aspiring to coach.

Specific Requirements for the Exercise Science, Health Promotion Emphases:

- Athletic Training
- General Exercise Science
- Health Promotion/Wellness
- Physical Education K-12 Teacher Preparation

Core Course Requirements for EXHP Emphasis Areas

Courses		Titles	Credits
EXHP	101	Introduction to EXHPR	3
BIOL	112	Nutrition	3
EXHP	162	Personal Health	3
EXHP	162L	Personal Health Lab	1
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	461	Managing Programs in EXHPR	3

Emphasis Area Course Requirements

Athletic Training Education Program

http://ceeps.colostate-pueblo.edu/exhpr/athletic_training.htm

Courses		Titles	Credits
EXHP	232	First Aid	3
EXHP	260	Care and Prevention of Athletic Injuries	3
EXHP	279	Practicum in Athletic Training I	1
EXHP	289	Practicum in Athletic Training II	1
EXHP	323	Functional Exercise Training	2
EXHP	330	Lower Extremity Evaluation	3
EXHP	331	Upper Extremity Evaluation	3
EXHP	332	Head, Neck and Spine Evaluation	3
EXHP	339	Clinical Pathology & Assessment	3
EXHP	379	Practicum in Athletic Training III	1
EXHP	389	Practicum in Athletic Training IV	1
EXHP	430	Therapeutic Modalities	3
EXHP	431	Therapeutic Exercise	3
EXHP	436	Exercise Assessment & Leadership	3
EXHP	443	Administration in Athletic Training	3
EXHP	479	Practicum in Athletic Training V	1
EXHP	489	Senior Practicum in Athletic Training	1
EXHP	494	NATA Test Preparation	1
EXHP	419	Athletic Training Field Experience	4
BIOL	223	Anatomy and Physiology I	3
BIOL	223L	Anatomy and Physiology I Lab	1
BIOL	224	Anatomy and Physiology II	3
BIOL	224L	Anatomy and Physiology II Lab	1
CIS	100	Intro to Word and Windows	1
CIS	103	Power Point and the Web	1
CIS	104	Excel Spreadsheets	1
MATH	121	College Algebra	4
PSYCH	151	Intro to Human Development	3
SPCOM	103	Speaking and Listening	3

Accreditation

The Colorado State University-Pueblo Athletic Training Education Program is accredited by the Commission on the Accreditation of Allied-Health Education Programs (CAAHEP).

Competitive Admission Policy

The Athletic Training Education Program is highly competitive. Entry into the curriculum is not guaranteed upon completion of the pre-professional phase (the first two years of coursework). The determining factors include the success of the pre-professional experience, meeting all academic prerequisites, and number of students enrolled in the program. The number of students admitted into the program varies from year to year.

Application Criteria/Procedure

The following criteria must be met to be considered for admission into the Colorado State University-Pueblo Athletic Training Education Program (ATEP)

- Completion of the Colorado State University-Pueblo Athletic Training Education Application. The student can obtain the application form from the program director. Completed applications are due to the program director by March 1st;
- Completion of EXHP 279, 232, 260, and BIOL 223, 223L, 224, 224L. (EXHP 232 and 260 with a B or higher, all others with a C or higher grade);
- An overall grade point average of 2.6 or higher;
- A declared Exercise Science, Health Promotion, and Recreation major;
- Proof of current First Aid and CPR for Professional Rescuer Certification;
- Documentation of observation hours and appropriate evaluation forms (from off-campus observation and EXHP 279 and 289);
- Complete interview with ATEP Director and Clinical Instructors; and
- NATA membership is highly recommended but not required.

The Athletic Training Education Program faculty/staff will make the final decisions regarding acceptance into the program based upon the student's total rankings on the admission criteria and available slots in the program. All applying students will receive written notification from the program director indicating their acceptance or denial into the Athletic Training Education Program.

Transfer Students

Students wishing to transfer to the Colorado State University-Pueblo Athletic Training Education Program must satisfy the above criteria. According to accreditation guidelines any courses containing competency or proficiency evaluation can not be accepted as transfer credits, unless an affiliate site agreement exists between the institution and CSU-Pueblo. Transfer students must understand that application to the athletic training education program occurs once a year during the fall semester only. Once accepted in the program students must complete 5 semesters in order to be eligible for graduation.

Requirements Upon Program Acceptance

The following are required:

- Completion of program approved physical exam.
- Completion of the program's Technical Standards Form.
- Completion of a Tuberculosis skin test and Hepatitis B vaccination and documentation or Hepatitis B declination form.
- Purchase of athletic training student liability insurance.
- Proof of medical insurance.
- Completion of "Background Check" will be required prior to going to any affiliated sites for clinical experience.
- The athletic training student will need their own personal transportation for travel to get to off-campus clinical sites.

Retention Criteria

In order to remain in the Athletic Training Education Program the student must:

- Maintain a 2.6 or higher overall GPA;
- Maintain 3.0 GPA in all athletic training courses, including grades of no less than a B in EXHP 379, 389, 479, and 489;
- Maintain athletic training student liability insurance; and
- Maintain Professional Rescuer First Aid and CPR with AED certification.

Outcome Assessment Activities for Athletic Training Emphasis

In addition to assessment, which is inherent in the core/emphasis requirements, prior to receiving clearance for graduation, each General Exercise Science major must complete:

- Departmental exit survey,
- Successful completion of all NATABOC competencies and proficiencies, and
- An exit comprehensive examination.

General Exercise Science

Courses		Titles	Credits
EXHP	201	Drugs and Healthy Lifestyles	3
EXHP	232	First Aid	2
EXHP	260	Care and Prevention of Injuries	3
EXHP	436	Exercise Assessment & Leadership	3
EXHP	494	Field Experience	6
		OR	
EXHP	498	Internship	12
BIOL	223	Anatomy and Physiology I	3
BIOL	223L	Anatomy and Physiology I Lab	1
BIOL	224	Anatomy and Physiology II	3
BIOL	224L	Anatomy and Physiology II Lab	1
CIS	100	Intro to Word and Windows	1
CIS	103	Power Point and the Web	1
CIS	104	Excel Spreadsheets	1
MATH	121	College Algebra	4
PSYCH	151	Intro to Human Development	3
SPCOM	103	Speaking and Listening	3

12-18 credits from the following with a minimum of 4-10 upper division:

REC	102	Mountain Orientation	2
REC	103	Winter Orientation	2
REC	104	Desert Orientation	2
REC	105	Canyon Orientation	2
EXHP	106L	Martial Arts and Self-Defense	1
EXHP	109L	Volleyball	1
EXHP	110L	Weight Training	1
EXHP	111	Commitment to Academic Excellence	1
EXHP	113L	Whiteboard Boating	1
EXHP	115L	Skiing	1
EXHP	116L	Camping	1
EXHP	117L	Backpacking	1
EXHP	120L	Aerobics	1
EXHP	175L	Racquetball	1
EXHP	176L	Lifeguard Training	1
PSYCH	205	Intro to Sports Psychology	3
EXHP	233	History and Principles of PE and Recreation	2
EXHP	243	Methods of Rhythmic Activities	2
EXHP	245	Motor Learning and Development	3
REC	249	Challenge Course Leadership	2
EXHP	288	Health Promotion Practicum	3
EXHP	323	Functional Exercise Training	2
EXHP	345	Methods/Physical Act. & Games I	2
EXHP	346	Methods Physical Act. & Games II	2
EXHP	348	Methods of Individual and Dual Sports	3
REC	350	Leadership and Ethics	3
REC	375	Research & Eval of Recreation	3
EXHP	382	Lifestyle Disease Risk Reduction	3
EXHP	464	Adapted Physical Education	3

EXHP	470	Methods of Coaching and Officiating	3
EXHP	473	Coaching Certification Clinic	1
EXHP	485	Methods in Health Promotion	3
EXHP	494	Field Experience	1-5
EXHP	498	Internship	12

Outcome Assessment Activities for General Exercise Science Emphasis

In addition to assessment, which is inherent in the core/emphasis requirements, prior to receiving clearance for graduation, each General Exercise Science major must complete:

- Comprehensive exit exam,
- Departmental exit survey, and
- Prepare a portfolio which includes:
  1. A current copy of academic transcripts,
  2. Cover letter and resume,
  3. Career vision, mission, goal and/or philosophy statement,
  4. Self-evaluation of proficiency including strengths and weaknesses,
  5. At least 4 samples of classroom and practical work from EXHPR and other relevant courses such as: research papers, statistical analysis, course projects, literature reviews, etc.,
  6. Evidence of participation in on- and/or off-campus interpersonal and leadership skill building co-curricular activities, and
  7. Letters of recommendation from professionals on- and off-campus.

Health Promotion/Wellness

http://ceeps.colostate-pueblo.edu/exhpr/health_promotion.htm

Courses		Titles	Credits
EXHP	201	Drugs and Healthy Lifestyles	3
EXHP	232	First Aid	2
EXHP	288	Health Promotion Practicum	3
EXHP	323	Functional Exercise Training	2
EXHP	336	Community Health	3
EXHP	382	Lifestyle Disease Risk Reduction	3
EXHP	436	Exercise Assessment & Leadership	3
EXHP	485	Methods in Health Promotion	3
EXHP	487	HP Program Planning/Evaluation	4
EXHP	498	Internship	12
BIOL	223	Anatomy and Physiology I	3
BIOL	223L	Anatomy and Physiology I Lab	1
BIOL	224	Anatomy and Physiology II	3
BIOL	224L	Anatomy and Physiology II Lab	1
CIS	100	Intro to Word and Windows	1
CIS	103	Power Point and the Web	1
CIS	104	Excel Spreadsheets	1
MATH	121	College Algebra	4
MCCNM	216	Advertising	3
		OR	
MCCNM	240	Public Relations	3
		OR	
MKTG	340	Principles of Marketing	3
PSYCH	151	Intro to Human Development	3
SPCOM	103	Speaking and Listening	3

Outcomes Assessment Activities for Health Promotion/Wellness Emphasis

In addition to assessment, which is inherent in the core/emphasis requirements, prior to receiving clearance for graduation, each Health Promotion/ Wellness major must complete:

- Comprehensive exit exam
- Departmental exit survey
- Prepare a portfolio which includes:
  1. A current copy of academic transcripts
  2. Cover letter and resume
  3. Career vision, mission, goal and/or philosophy statement
  4. Self-evaluation of proficiency including strengths and weaknesses
  5. At least four samples of classroom and practical work from EXHPR and other relevant courses such as: research papers, statistical analysis, course projects, literature reviews, etc.
  6. Evidence of participation in on- and/or off-campus interpersonal and leadership skill building co-curricular activities
  7. Letters of recommendation from professionals and on-and off-campus

Physical Education K-12 Teacher Preparation
http://ceeps.colostate-pueblo.edu/exhpr/k_12_physical_ed.htm

Courses		Titles	Credits
EXHP	232	First Aid	2
EXHP	233	History and Principles of PE	2
EXHP	243	Methods of Rhythmic Activities	2
EXHP	245	Motor Learning and Development	3
EXHP	260	Care & Prevention of Athletic Injuries	3
EXHP	345	Methods of Physical Activities And Games I	2
EXHP	346	Methods Physical Activities & Games II	2
EXHP	348	Methods of Individual/Dual Activities	3
EXHP	351	Methods of Teaching Elementary Physical Education	3
EXHP	465	Adapted Physical Education	3
EXHP	478	Methods of Teaching Secondary Physical Education	3

Two credits from the following:

EXHP	113L	Whitewater Boating	1
EXHP	114L	Basic Mountaineering Tech	1
EXHP	115L	Skiing	1
EXHP	116L	Camping	1
EXHP	117L	Backpacking	1
REC	102	Mountain Orientation	2
REC	103	Winter Orientation	2
REC	104	Desert Orientation	2
REC	105	Canyon Orientation	2
REC	249	Challenge Course Leadership	2

One credit from the following:

EXHP	106L	Martial Arts and Self-Defense	1
EXHP	109L	Volleyball	1
EXHP	110L	Weight Training	1
EXHP	119L	Walking for Fitness	1
EXHP	120L	Aerobics	1
EXHP	143L	Folk, Square, and Ballroom Dance	1
EXHP	174L	Tennis	1
EXHP	175L	Racquetball	1
EXHP	473	Coaching Certification Clinic	1

One Credit from the following:

EXHP	146L	Beginning Swimming	1
EXHP	176L	Lifeguard Training	1
EXHP	276L	Water Safety Instructor Certification	2

For teaching endorsement requirements, see the *Teacher Education Program* section of this catalog.

Outcome Assessment Activities for Physical Education K-12 Teacher Preparation Emphasis

In addition to assessment, which is inherent in the core/emphasis requirements, prior to receiving clearance for graduation, each K-12 Teacher Preparation major must complete:

- Departmental exit survey
- Proficiency in all Colorado and CSU-Pueblo Teacher Education Standards
- A high quality teacher work sample
- A high quality student teaching portfolio
- A passing grade on the Physical Education P.L.A.C.E. Certification Exam

Exercise Science and Health Promotion Minors

Program Goals

- Provide coursework that complements a major course of study.
- Enhance the student's employment market-ability and acceptance into graduate/professional school.

Expected Student Outcomes

Exercise Science and Health Promotion minors will:

- Complete the credit hour requirement of the minor;
- Complete all required coursework with a cumulative GPA of 2.5 or higher;
- Earn a minimum grade of "C-" in all minor courses; and
- Repeat minor courses with a grade of "D" or lower until a grade of "C-" or higher is achieved.

Specific Requirements for Exercise Science and Health Promotion Minors:

Coaching

Courses		Titles	Credits
BIOL	112	Nutrition	3
EXHP	260	Care and Prevention of Athletic Injuries	3

EXHP	364	Kinesiology	3
EXHP	470	Methods of Coaching &Officiating	3
EXHP	473	Coaching Certification Clinic	1
EXHP		Methods of coaching courses and/or	4
EXHP	494	Field Experience	(1-5 VAR)
PSYCH	205	Intro to Sports Psych	3
		TOTAL	20

Exercise Science and Health Promotion (for Non-EXHPR Majors)

Courses		Titles	Credits
EXHP	101	Introduction to Exercise Science and Health Promotion	3
BIOL	112	Nutrition	3
EXHP	162	Personal Health	3
Two credits from the following list			2
REC	102	Mountain Orientation	2
REC	103	Winter Orientation	2
REC	104	Desert Orientation	2
EXHP	106L	Martial Arts and Self-Defense	1
EXHP	109L	Volleyball	1
EXHP	110L	Weight Training	1
EXHP	113L	Whiteboard Boating	1
EXHP	115L	Skiing	1
EXHP	116L	Camping	1
EXHP	117L	Backpacking	1
EXHP	119L	Walking for Fitness	1
EXHP	120L	Aerobics	1
EXHP	174L	Tennis	1
EXHP	175L	Racquetball	1
EXHP	176L	Lifeguard Training	1
EXHP	300 or higher level student electives		9
		TOTAL	20

RECREATION

The Recreation program consists of two emphases of study:

- Community/Commercial
- Outdoor Adventure Leadership

Completion of both emphases 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. Students completing the Community/Commercial emphasis are eligible to sit for the Certified Park and Recreation Professional (CPRP) and after completing two additional courses, the Certified Therapeutic Recreation Specialist (CTRS) Certification Exams.

- A minor in Recreation is available to all students. The minor is ideal for those majoring in EXHPR, social work, sociology, and biology as well as for students aspiring to teach in public/private schools.

Recreation Emphasis Goals

- Provide students with a broad-based theoretical foundation supported by field experiences that facilitate individual observations, inferences, and hands-on mastery of skills related to the field of recreation.
- Prepare students to be life-long learners.
- Prepare students to become productive, accountable, ethical and responsible professionals.
- Prepare students to enter graduate or professional schools.

Recreation graduates are expected to:

- Demonstrate knowledge of the history and philosophy of leisure, recreation, and parks in western society;
- Exhibit awareness of the scope of the leisure services delivery spectrum, including public, private, and non-profit sector service providers in major specializations of leisure, recreation, and parks;
- Demonstrate an understanding of and ability to conduct various recreation program planning phases including client assessment, goal setting, activity analysis/selection, program management and evaluation;
- Demonstrate knowledge and the skills involved in a recreation leadership function including interpersonal communication, trust building, power and influence, interpersonal conflict and its resolution, teaching and transference, and decision making;
- Exhibit an awareness of the special populations that recreation programs and resources must

accommodate, the implications of programming for each population, and specific agencies/ legislation currently providing services for each population;

- Demonstrate knowledge of the principal federal and state agencies providing parks and resource-based recreation opportunities in the United States including the primary management policies and challenges;
- Demonstrate competencies in applying principles of management to recreation services and resources, including the organization of agencies, personnel, fiscal/risk management, and marketing;
- Exhibit an understanding of philosophies, history, curricular elements, and settings for outdoor education in the United States;
- Exhibit an awareness of key professional organizations and current trends/issues in the field of recreation and how to obtain matching employment;
- Demonstrate the ability to read and interpret professional journal articles relevant to recreation and to carry out and report on new, original research;
- Understand the principles of recreation facility design, construction and management.

Specific Requirements for the Recreation Emphasis:

Core Course Requirements for the Recreation Emphasis

Courses		Titles	Credits
EXHP	101	Introduction to EXHPR	3
REC	240	Recreation Program Design	3
REC	280	Foundations of TR	3
REC	350	Leadership & Ethics	3
REC	360	Teaching Exp Ed in Outdoors	3
REC	375	Research & Eval of REC	3
REC	389	Practicum	3
EXHP	461	Managing Program in EXHPR	3
REC	493	Seminar	2
REC	498	Internship	12

Emphasis Course Requirements

Outdoor Adventure Leadership

http://ceeps.colostate-pueblo.edu/exhpr/outdoor_adventure_education.htm

Courses		Titles	Credits
EXHP	113L-117L	Outdoor Skills (select 4 of 5)	4
REC	102-105	Orientations (select 3 of 4)	6
REC	249	Challenge Course Leadership	2
REC	270	Outdoor Leadership I	2
REC	370	Outdoor Leadership II	2
REC	470	Wilderness First Responder	2
REC	484	Outdoor Resources & Management	3

Community/Commercial Recreation

http://ceeps.colostate-pueblo.edu/exhpr/community_commercial_rec.htm

Courses		Titles	Credits
REC	250	Commercial Recreation and Tourism	3
REC	485	Recreation Facility Design and Management	3
MCCNM	216	Advertising	3
MCCNM	240	Public Relations	3
MGMT	201	Principles of Management	3
MGMT	318	Human Resource Management	3
MKTG	340	Principles of Marketing	3

Outcomes Assessment Activities

In addition to assessment, which is inherent in the core/allied/methods coursework requirements, prior to receiving clearance for graduation, each Recreation major must complete:

- A departmental exit survey
- A comprehensive exit examination
- A portfolio that includes:
  1. A current copy of academic transcripts and resume;
  2. Samples of research/term papers, projects, etc., from Recreation and other relevant courses;
  3. Evidence of participation in on- and/or off-campus interpersonal and leadership skill building co-curricular activities; and

4. Letters of recommendation from professionals on-and-off campus.

Recreation Minor Program Goals

- Provide coursework that complements a major course of study.
- Enhance the student's employment marketability and acceptance into graduate/professional school.

Expected Student Outcomes

Recreation minors will:

- Complete the credit hour requirement of the minor;
- Complete all required coursework with a cumulative GPA of 2.5 or higher;
- Earn a minimum grade of a "C-" in all minor courses;
- Repeat minor courses with a grade of "D" or lower until a grade of "C-" or higher is achieved;

Recreation Minor: Specific Requirements

Courses	Titles	Credits
EXHP 101	Introduction to EXHPR	3
EXHP 461	Managing Programs in EXHPR	3
REC 240	Recreation Program Design	3
REC 280	Foundations of TR	3
REC 360	Teaching Exp Ed in Outdoors	3
REC 375	Research & Eval of REC	3
REC 389	Practicum	3
	TOTAL	21

NURSING DEPARTMENT

Department Chair: Johnston
Undergraduate Coordinator: Glaublinsklee
Faculty: Chrisman, Coram, Cullen, DePalma, Farnworth, Foster, Janos, Martinez, Miller, Rodriguez, Sciotte, Speaks, Stueve, Waggoner

Department Mission

As the Southeastern Colorado Center for Nursing, the Department of Nursing's mission is to prepare today's nursing student to be tomorrow's competent and caring nurse.

Department Goals

The Nursing Department will:

- Provide quality learning experiences for nursing students that prepare graduates for practice as competent, caring, ethical, and accountable nurses.
- Maintain approval of the Colorado Board of Nursing and national accrediting agencies.
- Facilitate achievement of baccalaureate and graduate nursing education.
- Serve as the regional nursing education center for southern Colorado, collaborating with local and regional health care agencies by maintaining a program curriculum congruent with the expectations of the agencies, University, and students.

Our Accreditation

The CSU-Pueblo Department of Nursing baccalaureate 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 Bachelor of Science in Nursing Program

The Colorado State University-Pueblo Department of Nursing offers an undergraduate program that confers a Bachelor of Science in Nursing (BSN). The undergraduate program offers several tracks for the basic nursing student (Basic BSN), the registered nurse (RN-BSN), licensed practical nurse (LPN-BSN), second degree students (BA/BS-BSN), and the paramedic (Paramedic-BSN) to obtain their Baccalaureate of Science in Nursing degree (BSN). The Basic BSN is a track developed for the student who has completed prerequisite courses and has no degree, certificate or license. The RN-BSN track is developed for an associate degree or diploma nurse with a license to complete their BSN. The student with another baccalaureate or masters degree may apply to the BA/BS-BSN track or the Basic BSN. Licensed practical nurses that have a nursing license or completed an accredited program may apply for the LPN-BSN or Basic BSN track. The paramedic may elect to apply for the Paramedic-BSN or Basic BSN track. The BSN program also offers an elective concentrated clinical practicum in nursing. The elective practicum allows the student to explore their passion in clinical practice. Undergraduate nursing students may elect to take nursing graduate courses during their senior year.

Undergraduate Program Goals

The program will:

- Explore the application of human needs providing culturally competent care for clients in a variety of settings.
- Provide multiple opportunities for the student to engage in caring behaviors while applying the nursing process.
- Anticipate changes in health care environment and respond by redefining, changing, and maintaining competencies throughout one's practice life through the role modeling of professional behavior.
- Develop partnerships and collaborations to improve the public health and health care system through evidence based practice.
- Develop a student centered learning environment with the application of effective communication, technology and quality improvement processes that promote safe clinical practice.

Expected Undergraduate Student Outcomes

The Bachelor of Science in Nursing Major is designed to prepare the graduate to:

- 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 evidenced based practice to manage client care.
- Incorporate caring (commitment, compassion, conscience, competence, confidence, comportment) into professional nursing practice.
- Integrate nursing roles for professional nurses.
- 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 a plan to meet the health and safety needs of individuals, families, and communities.
- Demonstrate behaviors and clinical competencies that reflect professional standards and accountability congruent with the national organizations including the American Nurses' Association (ANA) Code of Ethics and the State Nurse Practice Acts in the provision of culturally competent nursing care to clients.

Outcome Assessments

The outcome assessments will be evaluated through or by:

- Assessment of clinical competencies through multiple strategies including simulations.
- Individual and course evaluations including the standardized testing program.
- An end of program evaluation survey and a graduate follow up survey of nursing graduates and their employers one year and five years after graduation.
- National Certification and/or Licensure Examination (NCLEX) required of graduates prior to professional nursing practice as a registered nurse.
- A survey of graduate employment and graduation rates.

Undergraduate Admission Policies and Procedures

Students are responsible for all undergraduate admissions policies and procedures as outlined in the *Academic Policies* section of this catalog.

Undergraduate Admission Requirements

Admission to the University does not imply acceptance to the nursing program. The undergraduate program is very competitive and applicants are ranked based on their GPA for the general education and prerequisites required by the program. Consideration is given to the percentage of prerequisites and general education courses completed and by the deadline (May 25). Students will be notified in writing by September 1st of their admission status to the program.

For the basic nursing student admission, requirements are a minimum GPA of 2.75 for all required general

education and prerequisites. All prerequisites must be passed with a C or better and be completed prior to taking NSG 232/232L. All general education must be completed prior to taking NSG 232/232L.

Students for whom English is a second language must have a TOFEL of 550 or have completed the University requirements of English and Speech skills.

Undergraduate Nursing Program Application Process

Applications to the nursing program may be obtained at www.ceeps.colostate-pueblo.edu/nursing or in the nursing department by calling 549-2401 or email at nursing@colostate-pueblo.edu. The completed applications must be submitted to the nursing department prior to the scheduled deadline. Incomplete applications will not be processed. Please contact the department if you have any questions regarding your application.

For the basic student admission, the student needs to be admitted to CSU-Pueblo first, and then submit a separate application to the nursing program by May 25 the year prior to the spring semester they plan to start the program. During the pre-nursing phase of the application process students will be advised by the pre-nursing advisor who can be contacted at the number above.

After Admission Requirements

Before a student starts their nursing sequence they must:

- Return receipt for program acceptance before November 1st.
- Have by Colorado Law (House bill 97-1084) a drug screen and fingerprint background check by the Pueblo County Sheriff's Office located at CSU-Pueblo prior to beginning the nursing major or during nursing orientation.
- All students must be currently certified in CPR (Health Care Provider-C or equivalent).
- Have a student health physical form filed with the Department and must have all immunizations current, including the Hepatitis B series, Measles, Mumps and Rubella and a 2 step TB test.
- Attend a mandatory nursing orientation.
- Submit current unofficial transcripts showing completion of all prerequisite and general education classes.

Acceptance of Transfer Credit

Transfer credit will be awarded per the published *Academic Policies* section of this catalog. Credit will be awarded for a course in which a grade of C or better was earned. Grades of C- are not accepted for any nursing prerequisite.

Time Limits

Nursing courses completed five (5) or more years before the date of graduation, either at CSU-Pueblo or at some other institution, will not be accepted as satisfying graduation requirements without the approval of the student's undergraduate program coordinator and department chair. Accelerated, full-time degree plans are provided in the following sections. Part-time degree plans are also available. Degree plans are developed with the student and their advisor or undergraduate program coordinator. All degree plans must be approved by the Student Affairs and Faculty Advocacy Committee.

Academic Standards

Students are responsible for all academic standards policies per the published *Academic Policies* section of this catalog. In addition to those policies, the following applies:

- Students must maintain a 2.75 (3.0 accelerated track and paramedic) cumulative nursing GPA for progression in the program. Failure to comply may result in dismissal from the program.
- Students must complete all nursing courses with a grade of C (not a C-) or better. Failure of two nursing courses or the same course twice will result in dismissal from the program and not eligible for readmission.

Graduation Requirement

The BSN degree will be granted to undergraduate nursing degree-seeking students who meet all of the published requirements plus the additional requirements below:

- Have a cumulative nursing GPA of 2.75 (3.0 accelerated track and paramedic) or better at graduation. All nursing courses and required prerequisite courses must be passed with a C or

better. Anything less than a C in required courses will not be applied toward graduation.

- Complete the program's minimum number of hours of approved course work within five years.
- Pass all required standardized exams at the national level.

Licensure Examinations and Certification Examinations

Students completing:

- All junior courses and the national standardized tests qualify to take the national licensure examination for the practical nurse.
- All of the Bachelor of Science in Nursing requirements and the national standardized exams qualify for the registered nurse licensure.
- A designed plan developed in their elective passion track may qualify for certification examinations.

The Basic Bachelor of Science in Nursing Track (Basic BSN)

The Basic BSN program assists the new student who has completed their prerequisite courses to enter a dynamic ever-changing profession of nursing by completing their BSN degree requirements. The program is based on a philosophical approach to nursing that includes the holistic synthesis of person, health and environment. The Colorado State University-Pueblo offers the ideal foundation for the development of the professional nurse.

Program of Study

The student must develop a program of study with the pre-nursing advisor. The pre-nursing advisor is notified once the student has declared their major. The student must contact their pre-nursing advisor to develop their program plan as soon as possible. The plan will include 43 credit hours of required prerequisite courses and 77 credit hours of nursing courses for a total of 120 credit hours. All nursing courses must be passed with a C or better. Basic students enrolled in the program must maintain a 2.75 GPA in order to progress.

Hybrid Courses
(50% online and 50% on campus)

A **hybrid course** is a combination classroom/Internet course. Students meet 50% of the time in a classroom at a regularly-scheduled time and place, the rest of your time is spent online. Both parts of the course, classroom attendance and online work, are mandatory.

Students are expected to subscribe to an email discussion list, communicate on a regular basis with your instructor, and collaborate extensively with others in your class.

In order to take a hybrid course, the student must have access to a computer so you can send and receive email, find information on the Internet, and participate in online discussions. Basic instruction in computers or the Internet will not be provided.

Hybrid courses are offered 50% on campus and 50% off-campus via a web-based format.

General Education and Prerequisites Courses			Credits
ENG	101	Composition I	3
ENG	102	Composition II	3
SPCOM	103	Speaking and Listening	3
BIOL	206/L	Introduction to Microbiology/Lab	4
BIOL	223/L	Anatomy & Physiology I/Lab	4
BIOL	224/L	Anatomy & Physiology II/Lab	4
CHEM	111/L	Principles of Chemistry/Lab	4
MATH	156	Statistics	3
PSYCH	151	Intro to Human Development	3
History		Per Gen. Ed. Requirement	3
Foreign Language			6
Social Science		Per Gen. Ed. Requirement	3
		TOTAL	43

NSG Courses		Titles	Credits
NSG	207	Nursing Pathophysiology	3
NSG	208	Basic Pharmacology	3
NSG	231	Introduction to Professional Nursing	2
NSG	232/L	Fundamentals of Nursing/Lab	7
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	312/L	Nursing Care of Childbearing Families/Lab	6
NSG	322/L	Nursing Care of the Adult I/Lab	7
NSG	332/L	Pediatric Nursing/Lab	6
NSG	351	Research in Nursing (hybrid)	3
NSG	382/L	Psychiatric Nursing/Lab	6

NSG	420/L	Nursing Care of the Adult II/Lab	7
NSG	431	Gerontological Nursing (hybrid)	3
NSG	442/L	Public Health Nursing/Lab	6
NSG	451	Healthcare Management & Issues (hybrid)	3
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics (hybrid)	3
		TOTAL	77

Elective Concentrated Clinical Practicum

The elective concentrated clinical practicum allows the student enrolled in any of the BSN tracks to choose an area of clinical concentration during their progression through the program. The student will meet with their advisor and course coordinator to develop their plan. The plan may include goals to achieve a specific certification. The plan will be approved by the SAFA committee.

Summer - Junior

NSG	372	Clinical Practicum I	3

Spring - Senior

NSG	472	Clinical Practicum II	3

Basic BSN Track Program Plan

Freshman - Fall

Courses		Titles	Credits
ENG	101	Composition I	3
BIOL	223/L	Anatomy & Physiology I/Lab	4
SPCOM	103	Speaking and Listening	3
Foreign Language			3
		TOTAL	13

Freshman - Spring

Courses		Titles	Credits
ENG	102	Composition II	3
BIOL	224/L	Anatomy & Physiology II/Lab	4
CHEM	111/L	Principles of Chemistry/Lab	4
PSYCH	151	Intro to Human Development	3
		TOTAL	14

Sophomore - Fall

Courses		Titles	Credits
BIOL	206/L	Introduction to Microbiology/Lab	4
MATH	156	Statistics	3
Foreign Language			3
SOC		Per Gen. Ed. Requirement	3
History		Per Gen. Ed. Requirement	3
		TOTAL	16

Sophomore - Spring

Courses		Titles	Credits
NSG	231	Introduction to Professional Nursing	2
NSG	207	Nursing Pathophysiology	3
NSG	208	Basic Pharmacology	3
NSG	232/L	Fundamentals of Nursing/Lab	7
		TOTAL	15

Junior - Fall

Courses		Titles	Credits
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	312/L	Nursing Care of Childbearing Families/Lab	6
NSG	322/L	Nursing Care of the Adult I/Lab	7
		TOTAL	17

Junior - Spring

Courses		Titles	Credits
NSG	332/L	Pediatric Nursing/Lab	6
NSG	351	Research in Nursing	3
NSG	382/L	Psychiatric Nursing/Lab	6
		TOTAL	15

Senior - Fall

Courses		Titles	Credits
NSG	420/L	Nursing Care of the Adult II/Lab	7
NSG	431	Gerontological Nursing	3
NSG	442/L	Public Health Nursing/Lab	6
		TOTAL	16

Senior - Spring

Courses		Titles	Credits
NSG	451	Healthcare Management & Issues	3
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics	3
		TOTAL	14

Licensed Practical Nurses Bachelor of Science in Nursing Track (LPN-BSN)

Licensed practical nurses who wish to obtain their Bachelor of Science in Nursing degree may do so through the LPN-BSN track.

LPN-BSN Track Admission Requirements

In addition to the undergraduate program admission requirements, the applicant for this track will:

- Bring the actual license of certificate to the Department of Nursing for faculty visualization and photocopying prior to the start of the first nursing class.
- Receive seven escrow credit for NSG 232/232L, awarded for LPN credits.

Program of Study

The pre-nursing advisor will meet with the student to plan a program of study for the LPN-BSN track. The course sequencing may change based on student's program of study developed prior to admission. The program of study will include 43 credit hours of prerequisite courses (see Basic BSN), and 77 credit hours of nursing courses. The licensed practical nurse may transfer in seven nursing escrow credit hours per the articulation agreement. Students must pass all courses with a C or better and maintain a 2.75 nursing GPA to progress.

LPN-BSN Track Program Plan

Prerequisite Courses
(See Basic BSN)

Spring or Summer

Courses		Titles	Credits
NSG	207	Nursing Pathophysiology	3
NSG	208	Basic Pharmacology	3
NSG	282	LPN Bridge to Professional Nsg	2
		TOTAL	8

Junior - Fall

Courses		Titles	Credits
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	312/L	Nursing Care of Childbearing Families/Lab	6
NSG	322/L	Nursing Care of the Adult I/Lab	7
		TOTAL	17

Junior - Spring

Courses		Titles	Credits
NSG	332/L	Pediatric Nursing/Lab	6
NSG	351	Research in Nursing	3
NSG	382/L	Psychiatric Nursing/Lab	6
		TOTAL	15

Senior - Fall
(Graduation Planning Due)

Courses		Titles	Credits
NSG	420/L	Nursing Care of the Adult II/Lab	7
NSG	431	Gerontological Nursing	3
NSG	442/L	Public Health Nursing/Lab	6
		TOTAL	16

Senior - Spring

Courses		Titles	Credits
NSG	451	Healthcare Management & Issues	3
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics	3
		TOTAL	14

Registered Nurse to Bachelor of Science in Nursing Track (RN-BSN)

RN-BSN Admissions Requirements

Students must meet basic nursing program admission requirements and for the RN-BSN track which is governed by the "Colorado Articulation Model." See Basic BSN for after admission requirements. The RN-BSN student applications are taken year round. The student will have a/an:

- Associate Degree or Diploma.
- Colorado nursing license in good standing.

- Minimum cumulative GPA of 2.750 in nursing prerequisite courses and general education courses.

Program of Study
(one day per week & hybrid)

The student must meet with the RN-BSN advisor to develop a program of study. The program of study is individualized to meet the student's needs. The program of study may include an accelerated, full-time or part-time sequence. The program of study is designed to assist the working RN in returning to school to complete their BSN. The student may choose from several program plans to meet their busy schedules. The courses are offered **one day per week and/or hybrid**. Hybrid courses are delivered 50% on web and 50% on campus. This allows the student to be on campus every other week for specific courses (see below). The RN-BSN track will include 33 credit hours of transfer/escrow credits through the articulation agreement, 43 credit hours of prerequisite or co-requisite courses (see Basic BSN) and 44 credit hours of nursing and upper division credit for a total of 120 credit hours. Students must pass all courses with a C or better and maintain a 2.75 GPA. RN's transferring from community colleges can only transfer in 27 prerequisite credits along with 33 RN credits for a total of 60 credit hours.

Nursing Transfer/Escrow 33

Prerequisite Courses 43
(See Basic BSN or Program Plan)

Traditional Courses

Courses		Titles	Credits
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	307	Health and Disease Systems	3
NSG	442/L	Public Health Nursing/Lab	6
Upper division elective			3

Hybrid Courses
(50% on campus and 50% online)

Courses		Titles	Credits
NSG	309	Professional Nursing Practice	4
NSG	311	Concepts for Professional Nsg	4
NSG	351	Research in Nursing	3
NSG	431	Gerontological Nursing	3
NSG	451	Healthcare Management & Issues	3
NSG	452/L	Nursing Process: Synthesis/Lab (RN Section only)	8
NSG	471	Healthcare Informatics	3

RN-BSN Track Program Plan

Prerequisite Courses
(See Basic BSN)

Fall - Junior

Courses		Titles	Credits
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	309	Professional Nursing Practice	4
		TOTAL	8

Spring - Junior

Courses		Titles	Credits
NSG	307	Health and Disease Systems	3
NSG	311	Concepts for Professional Nsg.	4
NSG	351	Research in Nursing	3
		TOTAL	10

Fall - Senior

Courses		Titles	Credits
NSG	431	Gerontological Nursing	3
NSG	442/L	Public Health Nursing/Lab	6
Upper division elective			3
		TOTAL	12

Spring - Senior

Courses		Titles	Credits
NSG	451	Healthcare Management & Issues	3
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics	3
		TOTAL	14

The Accelerated Option for Registered Nurse to Bachelor of Science in Nursing Track (RN-BSN)

The RN-to-BSN Track Accelerated Option enables registered nurses to make the transition to professional nursing with a baccalaureate degree in three consecutive semesters. The associate degree nurse can complete their bachelor's degree starting in the summer and finishing their nursing courses by the next spring. **Prerequisite courses must be completed prior to admission to this track.** Courses are delivered in a hybrid fashion allowing the student to take part of the course through the web, and part of the course through on-site instruction. Clinical

components of this track allow the student to essentially complete their clinical experiences in their hometown.

Summer

Courses		Titles	Credits
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	307	Health and Disease Systems	3
NSG	309	Professional Nursing Practice	4
NSG	311	Concepts for Professional Nsg.	4
NSG	351	Research in Nursing	3
		TOTAL	18

Fall

Courses		Titles	Credits
NSG	431	Gerontology	3
NSG	442/L	Public Health Nursing/Lab	6
Upper division elective			3
		TOTAL	12

Spring

Courses		Titles	Credits
NSG	451	Healthcare Management & Issues	3
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics	3
		TOTAL	14

Degree Plus to BSN Nursing Accelerated Track

The Nursing Department's belief of creating a generalist able to function as a professional in today's workforce enables the department to individually assess the student with a degree other than nursing in order to grant credit for courses taken.

The Degree-Plus Accelerated Option is for students with a previous non-nursing baccalaureate degree. The applicant must have completed the necessary prerequisites prior to starting the program. The Accelerated Option offers students an intense, challenging approach that enables students to complete the Bachelor of Science in Nursing degree in 14 months.

Previous coursework necessary for admission to the Accelerated Option includes the natural, social, and behavioral sciences. Most students in their previous degree may have completed most of the prerequisites required. During the Accelerated year, students participate in a reality based curriculum that includes classroom, Internet, and real life clinical experiences in state-of-the-art facilities.

The belief is that a student with a previous degree has moved from simple to more complex use of theories/ experiences either in their educational and/or work environments. This and use of multi theoretical frameworks is congruent with the Nursing Department's philosophy.

The degree-plus student is expected to meet with the pre-nursing advisor for advisement and plan development. The student must have a cumulative GPA of 3.0 and follow all admission requirements set forth in the Basic Nursing Track. A minimum of 30 credit hours must be taken at CSU-Pueblo or more based on the students plan. Due to the intensity of the curriculum, it is advised that the student not work and be able to attend to their studies full-time. Students must maintain a cumulative nursing 3.0 GPA to progress.

Prerequisite Courses			Credits
BIOL	206/L	Introduction to Microbiology/Lab	4
BIOL	223/L	Anatomy & Physiology I/Lab	4
BIOL	224/L	Anatomy & Physiology II/Lab	4
CHEM	111/L	Principles of Chemistry/Lab	4
MATH	156	Statistics	3
PSYCH	151	Intro to Human Development	3
Foreign Language			6
		TOTAL	28

Degree Plus to BSN Nursing Accelerated Track Program Plan

Summer

Courses		Titles	Credits
NSG	208	Basic Pharmacology	3
NSG	231	Introduction to Nursing	2
NSG	232/L	Fundamentals of Nursing/Lab	7
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	307	Health & Disease Systems	3
		TOTAL	19

Fall

Courses		Titles	Credits
NSG	322/L	Nursing Care of the Adult I/Lab	7
NSG	332/L	Pediatric Nursing/Lab	6
NSG	420/L	Nursing Care of the Adult II/Lab	7
		TOTAL	20

Spring

Courses		Titles	Credits
NSG	312/L	Nursing Care of Childbearing Families/Lab	6
NSG	351	Research in Nursing	3
NSG	382/L	Psychiatric Nursing/Lab	6
NSG	451	Healthcare Management & Issues	3
		TOTAL	18

Summer

Courses		Titles	Credits
NSG	431	Gerontological Nursing	3
NSG	442/L	Public Health Nursing/Lab	6
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics	3
		TOTAL	20

Paramedic to Bachelor in Nursing (Paramedic-BSN) Track

Then Nursing Department's belief of creating a generalist able to function as a professional nurse in today's workforce enables the department to individually assess the student with another degree other than nursing in order to grant credit for courses taken.

The Paramedic to BSN track allows the paramedic who has graduated from an accredited program to complete their BSN and have the option of completing their MS in a seamless track. The applicant must have completed the necessary prerequisite courses prior to starting the program. The Accelerated Option offers students an intense, challenging approach that enables students to complete the Masters of Science with a Major in Nursing degree and along the way complete their BSN, sit for the NCLEX examination for licensure, and graduate with an Acute Care Nurse Practitioner or MS track of their choice in three years.

Previous coursework necessary for admission to the Paramedic to BSN includes the natural, social, and behavioral sciences. Most students in their previous degree may have completed most of the prerequisites required. The students participate in a reality-based curriculum that includes classroom, internet, and real life clinical experiences in state-of-the-art facilities.

The belief is that a student moves from simple to more complex in their use of theories/experiences either in their education and/or work environments. This belief and use of multi theoretical frameworks is congruent with the Nursing Department's philosophy.

The student is expected to meet with a nursing advisor for advisement and plan development. The student will then be assigned an advisor. The student must have a cumulative GPA of 3.0 and follow all admission requirements set forth in the Basic Nursing Track. A minimum of 30 credit hours must be taken at CSU-Pueblo or more based on the students plan. Due to the intensity of the curriculum, it is advised that the student not work and be able to attend to their studies full-time.

Prerequisite and General Education Courses

(**Depending on the students program they may have completed most of these prerequisites.)

Courses		Titles	Credits
ENG	101	Composition I	3
ENG	102	Composition II	3
SPCOM	103	Speaking and Listening	3
BIOL	206/L	Introduction to Microbiology/Lab	4
BIOL	223/L	Anatomy & Physiology I/Lab	4
BIOL	224/L	Anatomy & Physiology II/Lab	4
CHEM	111/L	Principles of Chemistry/Lab	4
MATH	156	Statistics	3
PSYCH	151	Intro to Human Development	3
History		Per Gen. Ed. Requirement	3
Foreign Language			6
Social Science		Per Gen. Ed. Requirement	3
		TOTAL	43

Course Sequencing

Summer

Courses		Titles	Credits
NSG	208	Basic Pharmacology	3
NSG	231	Introduction to Professional Nsg	2
NSG	232/L	Fundamentals of Nursing/Lab	7
NSG	302/L	Health Promotion & Assessment/Lab	4
NSG	307	Health & Disease Systems	3
		TOTAL	19

Fall

Courses		Titles	Credits
NSG	322/L	Nursing Care of the Adult I/Lab	7
NSG	332/L	Pediatric Nursing/Lab	6
NSG	420/L	Nursing Care of the Adult II/Lab	7
		TOTAL	20

Spring

Courses		Titles	Credits
NSG	312/L	Nursing Care of Childbearing Families/Lab	6

NSG	351	Research in Nursing (hybrid)	3
NSG	382/L	Psychiatric Nursing/Lab	6
NSG	451	Healthcare Management & Issues	3
		TOTAL	18

Summer

Courses		Titles	Credits
NSG	431	Gerontological Nursing	3
NSG	442/L	Public Health Nursing/Lab	6
NSG	452/L	Nursing Process: Synthesis/Lab	8
NSG	471	Healthcare Informatics	3
		TOTAL	20

Masters of Science Courses Taken By Seniors

Undergraduate nursing students may elect to take nursing graduate coursed during their senior year. The policies are outlined in the *Graduate Program* section of this catalog.

TEACHER EDUCATION PROGRAM

Dr. Victoria Marquesen: Associate Dean

Faculty: Piazza, Ramirez, Ryan,

Mission of the Teacher Education

The Teacher Education Program has a primary mission of preparing teachers of quality and distinction. At Colorado State University-Pueblo, preparing teachers is a campus-wide responsibility, with faculty and administrators involved in support of the program's mission. An integral component of the program is its formal partnership with 17 school districts and four community colleges in southern and southeastern Colorado. The joint efforts of students, faculty, and administrators across all partners focus on improving the quality of learning in classrooms in elementary, secondary, and higher education.

Conceptual Framework—Building and Bridging Communities of Learners

A *Conceptual Framework* is a guide for how a teacher education program is planned and organized, summarizing its philosophical views of the roles of teaching and learning and its essential understandings of how students become teachers. The conceptual framework of teacher education at Colorado State University-Pueblo is *Building and Bridging Communities of Learners*. The organizing theme of *learning communities* focuses the attention of faculty and students on the essential nature of teaching and learning: How does community shape learning and achievement? What are the roles of successful learners and teachers? What social interactions are necessary for both learning and community? How is the definition of a learning community changing in an increasingly technological age? What is the relationship between the concept of learning community and the democratic ideal of American education?

For faculty at CSU-Pueblo, the vision of quality education requires a learner-centered environment in which learning (not teaching) is at the core. All learners will achieve in communities in which learning is publicly and constructively discussed, a positive climate surrounds all members, and support exists for all learners' individual growth and development.

Inclusive, equitable communities require constant attention to the nature of relationships among teachers and students. CSU-Pueblo students will be prepared to participate as learners and teachers in overlapping and expanding learning communities–from the University classroom to K-12 settings, the professional education community, distributed communities created by technology, and cultural, economic, and political communities of students and their families.

To become beginning teachers, students must change their perceptions of themselves as learners and as students of teaching. As students progress through the program, they will skillfully assume a variety of roles, including those of master learners, instructors, collaborators, apprentices, models, coaches, colleagues, and mentors. It is the mission of the teacher education program to prepare teachers and learners of quality and distinction by exposing students to quality communities of teaching and learning.

Program Goals

- Prepare teachers of quality and distinction with broad-based liberal arts education, depth of knowledge in the areas in which they teach, and the ability to skillfully translate theory and practice to ensure student learning.
- Create a learner-centered community designed to achieve program goals and expected student results.
- Provide systematic advising and evaluation activities which assure student success and program quality.

- Serve the region and state of Colorado through partnerships with school districts and institutions of higher education.

Student Outcomes

The Teacher Education Program is a standards-based model of education. Student outcomes are the foundation of the program, upon which the curriculum, instruction, and assessment are aligned and implemented. Based on its mission to produce teachers of quality and distinction, the program has adopted goals in eight areas. Each goal has been articulated into a series of performance-based standards or outcomes that all students must achieve before completing the program. Benchmarks, or more specific outcomes, for each standard have been developed as course objectives throughout the program, and faculty across campus have organized course requirements and assignments to assure that students can meet these standards at high levels.

Standards are aligned with the *Performance-based Standards for Colorado Teachers* (2000) and requirements of the Colorado Department of Education and Colorado Commission on Higher Education. Proficiency in all standards is required for successful completion of teacher education and recommendation for state licensure.

Teacher Education Goals

CSU-Pueblo teacher education graduates will:

1. Use democratic principles to create communities of learners that assure positive social interactions, collaboration, and cooperation.

2. Create learning experiences that make content knowledge accessible, exciting, and meaningful for all students.

3. Create a learning community in which individual differences are respected, appreciated, and celebrated.

4. Ensure, through the use of standards and informal and formal assessment activities, the continuous development of all learners.

5. Construct and use pedagogy to maximize the intellectual, social, physical, and moral development of all students.

6. Be reflective decision-makers, incorporating understandings of educational history, philosophy, and inquiry, as will as the values of the democratic ideal.

7. Create communities of learning by working collaboratively with colleagues, families, and other members.

8. Model the professional and ethical responsibilities of the education profession.

Teaching Endorsement Areas

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

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

Selective Entry and Retention in Teacher Education Admission

Many education courses require the prerequisite of admission to education (see description of courses). Students complete the admission to education process during ED 301: Frameworks of Teaching. The entire process for gathering information and submitting it to faculty is completed during the course.

The following are the requirements that must be met to be admitted to teacher education. No exceptions can occur to these requirements:

1. Complete Health Clearance Form

2. Cumulative grade point of 2.600 or greater.

3. Completion of ENG 101 and 102 with grades of C- or better.

4. Completion of MATH 109 or math course required by major field. A grade of B or better is required in MATH 109 or MATH 360; a grade of C or better is required in MATH 121, 124, 126, or 221. Students who complete both MATH 109 and MATH 156 or MATH 360 and MATH 361 prior to admission may be admitted with grades of C or better in both courses.

5. Completion of SPCOM 103 with a grade of B- or better, or, students completing SPCOM 103 with a C- or degree plus students may complete this competency through the Oral Proficiency Exam.

6. Completion of ED 301 with a grade of C- or better.

7. Completion of a formal, standardized test such as the Academic Profile and a writing sample.

8. Completion of satisfactory background check with the Colorado Bureau of Investigation. Background check is sent to the Colorado Department of Education and report must meet the criteria required for obtaining a teaching license in Colorado.

9. Completion of an education portfolio. Six types of materials will be submitted with the portfolio: 1) transcripts and official documents demonstrating students performance in University classes, 2) materials developed in University classes which demonstrate proficiency on specific education standards, 3) recommendations and evaluations from teachers, 4) materials used in field experiences and videos of teaching, 5) personal reflections and summaries about progress, and 6) results of formal tests. Specific portfolio requirements and manner of evaluation are included in the appendices to the *Teacher Education Handbook.* All portfolios will be submitted in electronic format (website).

Retention

Students must maintain a cumulative GPA of 2.600 and must continue to make progress towards proficiency on program standards to remain in the teacher education program. Additional details related to program retention are included in the *Teacher Education Handbook.*

Student Teaching

Student teaching provides opportunities to integrate theory with practice. Prior to being approved for a student teaching assignment, the following requirements must be met:

1. Completion of all course work including courses in the content area and education.

2. Cumulative GPA of 2.600.

3. GPA of 2.500 in the academic major.

4. Grades of C- or higher in all courses required for licensure.

5. Passing score on the content exam in the student's licensure area, required by the State of Colorado.

6. Completion of an education portfolio. Six types of materials will be submitted with the portfolio: 1) transcripts and official documents demonstrating students performance in University classes, 2) materials developed in University classes which demonstrate proficiency on specific education standards. 3) recommendations and evaluations from teachers, 4) materials used in field experience and videos of teaching, and 5) personal reflections and summaries about progress. Specific portfolio requirements and manner of evaluation are included in the appendices to the *Teacher Education Handbook.* All portfolios will be submitted in electronic format (website).

Applications must be submitted a semester in advance: First Friday in October for a spring semester assignment; first Friday in March for a fall semester assignment.

Student teaching requires full time effort, therefore students may not enroll in University courses other than Student Teaching and Capstone Seminar.

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 the Teacher Education Program has conducted a final review.

Specific Requirements for the Elementary Teaching Endorsement

CSU-Pueblo requires the student interested in Elementary Education to complete a Liberal Studies major in addition to the courses in Education listed below.

Courses	Titles	Credits
ED 202	Foundations of Education PREREQUISITES- None	3
ED 280	Educational Media and Technology PREREQUISITES- None	3

ED 301 Frameworks of Teaching 3
PREREQUISITES- Completion of 45 college hours and a cumulative GPA of 2.6 (Admission to Education is completed in this course)

ED 380 Integrated Methods in Elem. School 3
PREREQUISITES- Admission to Education; GPA of 2.6

RDG 410 Teaching Elementary Language Arts 4
PREREQUISITES- Admission to Education; GPA of 2.6

ED 412 Teaching Diverse Learners 3
PREREQUISITES- Admission to Education; GPA of 2.6

ED 413 Teaching Social Studies.....3
PREREQUISITES-Admission to Education; GPA of 2.6

ED 414 Teaching Elementary Science & Health 2
PREREQUISITES-Admission to Education; GPA of 2.6

ED 417 Teaching Mathematics in the Elementary School 2
PREREQUISITES- Admission to Education: GPA of 2.6; Completion of Liberal Studies Math Block.

ED 485 Capstone Seminar 2
PREREQUISITES-Admission to Student Teaching. Must be taken with student teaching

ED 487 Student Teaching in the Elementary School 12
PREREQUISITES- Admission to Student Teaching

Specific Requirements for the Secondary and K-12 Teaching Endorsements

The student must complete an appropriate major and the following Education courses:

Courses	Titles	Credits
PSYCH 151	Human Development	3
	PREREQUISITES-None	
ED 202	Foundations of Education	3
	PREREQUISITES-None	
ED 280	Educational Media and Technology	3
	PREREQUISITES-None	
ED 301	Frameworks of Teaching	3
	(Admission to Education is completed in this course PREREQUISITES-Completion of 45 college hours and a cumulative GPA of 2.6	
PSYCH 342	Educational Psychology	3
	PREREQUISITES-PSYCH 151	
RDG 435	Content Area Literacy	4
	PREREQUISITES-Admission to Education; GPA of 2.6	
	Special Methods in Endorsement Areas 4-9 PREREQUISITES-Admission to Education; GPA of 2.6	
ED 412	Teaching Diverse Learners*	3
	PREREQUISITES-Admission to Education: GPA of 2.6	
ED 485	Capstone Seminar	2
	PREREQUISITES-Admission to Student Teaching. Must be taken with student teaching.	
ED 488/489	Secondary Student Teaching/Student Teaching K-12	12
	PREREQUISITES-Admission to Student Teaching	
	TOTAL	37-42

*Physical Education students complete EXHP 465, Adaptive Physical Education.

Performance Assessment Activities

In the Teacher Education Program, performance assessment is a process that documents the relationship between the stated mission, goals, program standards, and actual student outcomes. Assessment is multidimensional and comprehensive, utilizing a variety of quantitative and qualitative measures.

- Assessment of student progress is frequent and ongoing throughout the program. At three points in the student's program, faculty completes a multidimensional assessment of progress on teacher education program standards: at

admission to education, admission to student teaching, and during student teaching. These assessments include a review of progress in all courses, evaluation of student performance through a student-constructed portfolio, and review of K-12 teachers' evaluation of student performance in field experiences.

- Evaluation of progress occurs at the end of each semester after admission to education through a review of student performance in University classes and field experiences.

- Student records are maintained in the Teacher Education Office.

READING PROGRAM

Reading Minor

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

- Describe the role and importance of the child's self-concept, experience and culture, home language and dialect, stages of growth and development, and success and familiarity with literature as factors in motivating growth in reading and the language arts;

- Plan lessons and teach effectively using a variety of grouping techniques, including whole class, individual, ability, and cooperative;

- Locate and use a variety of materials to teach reading and the other language arts. The materials include textbooks, basal readers, trade and library books, teacher-made materials, computer programs, student-generated texts, centers, newspapers, and children's literature;

- Diagnose student reading levels and specific strengths and weaknesses, organize instruction to provide for the needs of the class and individual special students, adapt instruction in content areas to promote content learning, and develop reading and writing growth for all students;

- Recognize common causes of reading and writing difficulties and administer and interpret the scores of a variety of informal assessment techniques such as reading miscue inventories and norm-referenced standardized tests;

- Assess writing samples for diagnosis and prescription in expression, organization, fluency, sentence and paragraph development, theme, spelling, penmanship and fluency in work processing; and

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

Specific Requirements

Students must complete the reading core with a GPA of 3.00 or better and complete the reading electives with a cumulative GPA of 2.60 or better. RDG 301 or 425 are prerequisites for other reading courses. The minor requires completion of a minimum of 22 hours, 14 from core courses and 8 hours chosen from available electives with consultation with an education advisor. Many electives are available only in summer sessions.

Core Course Requirements

Courses	Titles	Credits
ENG 351/ 412	Children's Literature/Adolescent Literature	2
RDG 301*	Teaching Reading and Language Arts in the Elementary School	3
RDG 310	Current Approaches to Reading and Writing Instruction	3
RDG 425**	Teaching Reading in the Content Areas	3
RDG 450	Diagnosis and Remediation of Reading Problems	3
	CORE TOTAL	14

Eight credits of Electives from the following list: 8

Courses	Titles	Credits
RDG 360	Practicum	1-3
RDG 431	Developing Creative Centers	1
RDG 436	New Directions in Reading Comprehension	2
RDG 437	Teaching with Newspapers as a Resource	1
RDG 442	Reading Across Cultures	2
RDG 491	Topics in Reading	1-2
ED 412/461	Teaching Diverse Learners/Atypical Students in the Secondary School	3

Core Total	14
Electives Required	8
Total Required	22

* RDG 410 Teaching Reading and Language Arts (4 hours) may replace RDG 301

**RDG 435 Area Content Literacy (4 hours) may replace RDG 425

Higher Education Act (HEA) Reporting Requirements

In October 1998, Congress enacted Title II of the Higher Education Act (HEA), requiring new reporting requirements for institutions and states on teacher preparation and licensing. Section 207 of Title II requires the annual preparation and submission of a report by each university that prepares teachers on how well individuals who complete its teacher preparation program perform on initial state licensing and certification assessments in their areas of specialization. Universities are also required to publish information on basic aspects of their programs, such as number of students, amount of required supervised practice teaching, and the student-faculty ratio in supervised practice teaching. On the next page is information on students who completed CSU-Pueblo's teacher education program during 2004-2005.

Required Program/Supplementary Material

S.1 Total number of students admitted into teacher preparation, all specializations, in Academic year 2004-2005	340	S.6A The average number of student teaching hours per week required	40
S.2 Number of students in supervised student teaching in academic year 2004-2005	81	S.6B The total number of weeks of supervised student teaching required	15
Number of faculty members who supervised student teachers:		S.7 Average total number of hours required	600
➢ S.3A Full-time faculty in professional education	3	S.8. Is your teacher preparation program currently approved or accredited by the state? _X_ Yes _____ No	
➢ S.3B Part-time faculty in professional education but full-time in the institution	2		
➢ S.3C Part-time faculty in professional education, not otherwise employed by the institution	13	S.9. Is your teacher preparation program currently under a designation as "low-performing" by the state)? _____ Yes _X_ No	
S.4 Total faculty student teaching supervisors	18		
S.5 Student teacher/faculty ratio	4.5		

Colorado State University-Pueblo

One hundred percent of all CSU-Pueblo students passed the required licensure exam prior to their student teaching in 2004-2005. Statistics below only consider program completers who took and passed the PLACE exams. In Colorado, students in Elementary Education, English, Math, Science, and Social Studies may complete either the PLACE or PRAXIS exams, and many CSU-Pueblo students do complete the PRAXIS. Students listed as not passing in the table or whose scores are not reflected in the table took the PRAXIS and passed.

Academic Year: *2004-2005* Testing Period: *9/04-8/05*

Test Field/Category		Institution Number Tested	Institution Number Passed	Institution Pass Rate	Statewide Pass Rate
028	Art	3	--	--	99%
001	Elementary Education	39	32	82%	87%
007	English	4	--	--	95%
004	Mathematics	5	--	--	98%
029	Music	4	--	--	96%
032	Physical Education	12	12	100%	98%
006	Social Studies	5	--	--	84%
009	Spanish	2	--	--	98%
Aggregate		**74**	**65**	**88%**	**92%**
Summary Totals and Pass Rate		**74**	**65**	**88%**	**93%**

Note: Pass rates for content areas with fewer than 10 students taking the test are not included per the "Rule of 10" described in the *Reference and Reporting Guide*, page II.

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Dr. Russell Meyer, Dean

Academic Departments	Majors	Minors
Art	Art (BA, BFA)	Art
		Chicano Studies
English/ Foreign Languages	English (BA) Foreign Language- Spanish (BA)	Creative Writing English French Italian Spanish Professional Writing
History/ Political Science/ Philosophy/ Geography	History (BA, BS) Political Science (BA, BS)	History Political Science Philosophy
	Liberal Studies (BS)	
Mass Communications And Center For New Media	Mass Communications (BA, BS)	Mass Communications
Military Science (US Army)		Military Science ROTC Program
Music	Music (BA)	Music
		Non-Profit Administration
Psychology	Psychology (BA, BS)	Psychology
Sociology/ Anthropology/ Social Science	Sociology (BA, BS) Social Science* (BA, BS) *(Continuing Education only)	Sociology Anthropology Social Science*
Social Work	Social Work (BSW)	
		Women's Studies

Mission

The mission of the College of Humanities and Social Sciences is to help students 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 high quality teaching, theoretical and applied research, scholarship, creativity, 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 increasingly technological and interdependent world.

Graduation Requirements

In addition to other graduation requirements listed in the catalog, students in the College of Humanities and Social Sciences must complete 18 hours of course-work not counted toward the major field of study or general education.

ART DEPARTMENT

Department Chair: Sonnema
Faculty: Aviña, Dalton, R. Hansen, V. Hansen, Jensen, Johnson

The art curriculum is designed to increase the student's understanding of art and its relationship to society. The art major prepares the student to be a practicing artist, to enter graduate school for further professional education or to enter the job market in art-related careers. Students also may select art courses as a means of achieving a greater sense of personal creativity and accomplishment. Students, faculty, and invited professional artists display works in the CSU-Pueblo 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 Fine Arts (BFA). A minor in art is also available.

Students will need to contact the Art Department for specific major requirements for the Bachelor of Fine Arts (BFA) degree.

Department Goals

The art major prepares students to be visually creative individuals with skills in studio processes, knowledgeable in art history, and with experience to enter art-related careers in the job market.

Expected Student Outcomes

General Requirements

- The art faculty firmly believes that a quality undergraduate art program must be built from the strong foundation of basic concepts and techniques provided by the required ART CORE courses. Art history, drawing and design combined with an introduction to the basic art processes, provide the necessary background of information and skills for individual artistic growth and maturity. A strong grounding in the fundamentals of art, as provided in the ART CORE, indicates the department's insistence upon respect for and commitment to the academic discipline of art as a professional career.

- Art majors must complete the required courses known as the ART CORE, except Art 410, before proceeding into the beginning courses.

- No grade lower than a C will count toward either an art major or minor.

- Students are required to take 30 hours of major courses in residency

Specific Requirements for the Art Major

ART CORE

ART Courses	Titles	Credits
ART 110	Art Career Orientation (First Semester)	1
ART 115 and 116	2D and 3D Design	6
ART 141 and 242	Drawing I & II	6
ART 211 and 212	History of Art I and II	6
ART 234	Painting I	
	OR	
ART 270	Printmaking I	3
ART 247	Ceramics I	
	OR	
ART 233	Sculpture I	3
ART 281	Intro to Graphic Design I	
	OR	
ART 274	Computer Imaging I	3
ART 411	Twentieth Century Art	3
ART 410	Senior Career Orientation (Last Semester)	2
	TOTAL	33

PLUS

Emphasis area 11
Art electives selected with an art advisor 6

TOTAL 50

Specific Requirements for K-12 Art Education

ART Courses	Titles	Credits
ART 110	Career Orientation (1st semester)	1
ART 115	2D Design	3
ART 116	3D Design	3
ART 141	Drawing I	3
ART 211	History of Art I (fall)	3
ART 212	History of Art II (spring)	3
ART 234	Painting I	3
ART 242	Drawing II	3
ART 247	Ceramics I	3
ART 250	Fibers & Jewelry for Educators	3
ART 270	Printmaking I	3
ART 276	Photography	3
ART 281	Intro to Graphic Design I	3
ART XXX	Upper Division Art History Course	3
ART 410	Senior Career Orientation (last semester)	3
Art upper division electives (selected with art adv)		8-11
	TOTAL	50-53

Specific Requirements for the BFA Degree

Students will need to contact the Art Department for specific major requirements for the Bachelor of Fine Arts (BFA) degree.

Specific Requirements for the Art Minor

ART Courses	Titles	Credits
ART 141 or 242	Drawing I or II	3
ART 115 or 116	2D or 3D Design	3
ART 211 or 212	History of Art I or II	3
Art electives approved by minor advisor		12
	TOTAL	21

Co-curricular requirements

The faculty supports and encourages the involvement of art majors and minors in the Art Club and related activities specific to each studio and actively encourages student participation in such organizations.

Outcomes Assessment Activities

- Art majors will successfully demonstrate competencies required by the department. Competencies will be evaluated through a portfolio review.
- Each art major is required to produce and maintain a portfolio of work done at CSU-Pueblo as a record of achievement. The contents and objectives of the portfolio will be described, discussed and planned in the career orientation class (Art 110). Final evaluation of the progressive portfolio will take place during the student's last semester as part of the senior orientation class (Art 410).
- The format of the portfolio may vary according to subject matter and content but in general the presentation materials will consist of 35mm color slides, prints, graphic design samples, electronic files, and/or videotapes, as appropriate.
- As a competency indicator of achievements in the area of art history, part of the portfolio should contain samples of a student's written material as related to art history, analysis and criticism.
- The intent of the portfolio is to faithfully reflect the ability and competency level of the art student as he or she progresses in the program. The makeup of the portfolio will reflect the personal accomplishments of each individual.
- A complete set of course outlines and examination examples for each course will be maintained and updated by faculty members and made available to the student upon request. Class objectives and skills attained during the class will be denoted clearly in these materials.

CHICANO/A STUDIES PROGRAM

The Chicano/a studies minor complements majors and careers in law, sociology, social work, languages, education, government, business and other disciplines. Courses offer unique undergraduate preparation for those who seek entrance to graduate studies in law, humanities or the social sciences.

Students who plan to live and work in the American Southwest or aspire to careers that involve relations in the American continents are likely to be well served by Chicano/a Studies courses. The interdisciplinary approach emphasizes history and cultural studies, and selected courses provide the student with in-depth knowledge of specific aspects of the Chicano/a community.

Program Goals

- To provide individual courses as well as a minor to fulfill the unique role and mission of Colorado State University-Pueblo.
- To offer an individually designed minor in support of students' majors.

Expected Student Outcomes

General Requirements

- Students in Chicano/a studies courses will display an adequate and measurable knowledge of the subject matter within the course.
- Students in Chicano/a studies courses will develop an understanding of the relationships of ethnic groups within American society by viewing the academic study of Chicanos/as as a paradigm for the study of other ethnic groups.
- Students must earn a C- or better in all courses applicable to the minor.

Specific Requirements for the Chicano/a Studies Minor

Twenty-four hours: 15 required, 9 elective. The following five courses are required.

CS Courses		Titles	Credits
CS	101	Introduction to Chicano/a Studies	3
CS	136	The Southwest United States	3
CS	246	History of Mexico	3
CS	306	La Chicana	3
CS	493	Senior Seminar in Chicano/a Studies	3
Electives			9
		TOTAL	24

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

Chicano Studies is also available as an emphasis area within the Spanish major. Please refer to the *Spanish Major with Emphasis in Chicano Studies* section listed under the Foreign Language section in this Catalog.

CS Courses		Titles	Credit
CS/ENG	220	Survey of Chicano/a Literature	3
CS/SW	230	Chicano/a: Social and Psych Study	3
CS/WS	240	Chicana Writers	3
CS	291	Special Topics	1-3
CS	303	Chicano/a Labor History in the U.S.	3
CS/SW	325	Health in the Chicano/a Community	3
CS/WS	401	Third World Feminism	3
CS/HIST	489	Borderlands	3
CS	495	Independent Study	1-3

Outcomes Assessment Activities

- Upon identification of a Chicano/a studies minor, the Chicano/a studies coordinator will initiate a "Chicano/a studies program" file on the student, with the student's permission. The file will contain the program of design, the student's orientation (research interest, general interest, personal interest, employment interest, etc.), a history of the student's academic progress, the substantive research paper completed in CS 493, a record of meetings with the coordinator, and other examples of the student's academic performance.

- At three- seven- and 10-year intervals, the graduate will be contacted and asked to evaluate the program's influence.

- In addition to course syllabi, the Chicano/a studies coordinator will retain a copy of examinations administered in Chicano/a studies courses for a 10-year period. At five-year intervals, the coordinator and the faculty will determine if consistency and academic integrity are being maintained by reviewing instruments of cognitive measurement, student perception forms and trends, alumni comments, and comparative analysis of grade distribution patterns.

ENGLISH/FOREIGN LANGUAGES DEPARTMENT

Department Chair: Sheidley
Faculty: Barber, Cobián, Covi, Frank, Griffin, Kartchner, Keplinger, Rodríguez-Arenas, 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 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 minors.

Requirements for the English Major

- Specific requirements for the English major are listed below. Students should consult with an advisor in English before registration.

- Students must fulfill the University language requirements for the BA degree, first year foreign language (6-10 credit hours) OR English 106 (3 credit hours) and Foreign Language 100 (3 credit hours). For International students, English 101 and 102 fulfill the Foreign Language Requirement.

Requirements for the English Minor

Minor requirements are 20 or more semester credit hours of course work in English numbered 106 or above, of which 12 must be upper division. Courses must be chosen in consultation with an advisor in English.

For teaching endorsement requirements, see the Teacher Education Program section.

Co-curricular Requirements

The English faculty supports and encourages English majors' involvement in student organizations and participation in tutoring activities in the community and on campus.

Outcomes Assessment Activities

Assessment of the English program is the responsibility of the English Program Assessment Committee, consisting of the chair of English and Foreign Languages and three other faculty members. The committee's annual reports evaluating the program and proposing any needed changes are compiled from the following information:

- A central file of course syllabi with representative assignments is maintained by the department for inspection by the committee and other qualified persons.
- Faculty advisors monitor each student's progress toward completing major requirements and meeting the Program Goals listed in the catalog. Advisors 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 advisors meet individually with each of their students on a regular basis to help plan schedules and discuss educational and career goals. Advisors maintain an accurate and up-to-date record of each student's 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

A total of 45 credits in English beyond 101 and 102 (FL 100 and ENG 106 may be counted, but not double counted for Foreign Language), distributed as follows:

ENG Courses		**Titles**	**Credits**
ENG	201	Intro. to Literary Study	3
(To be taken at or near the start of the program.)			
ENG	493	Senior Seminar	3
(To be taken at or near the end of the program)			

One of the following courses in Genres: 3

ENG	307	Poetry
ENG	308	Fiction
ENG	309	Drama

At least **three** courses in Literature in Historical Perspective, chosen with the approval of the major advisor, two of which must comprise a sequence of American or British literature at the 200 level (i.e., ENG 210 and ENG 212 or ENG 231 and ENG 232), while the third must be at the 300 level or above. 9

At least **two** courses in Major Writers, at least one of which must be in Shakespeare 6

At least **one** course in Literary Theory 3

At least **one** course in Writing, beyond ENG 101 and 102 3

At least **one** course in The English Language and Linguistics (FL 100 and ENG 106 may be counted, but not double counted for Foreign Language). 3

At least 12 credits of English electives, chosen with the approval of the major advisor (General Education and Foreign Language requirements may not be double counted) 12

TOTAL 45

Specific Requirements for the Bachelor of Arts in English with Creative Writing Emphasis

A total of 45 credits in English beyond 101 and 102 (FL 100 and ENG 106 may be counted, but not double counted for Foreign Language), distributed as follows:

ENG Courses		Titles	Credits
ENG	201	Intro. to Literary Study	3
ENG	114	Intro. to Creative Writing	3
(To be taken at or near the start of the program)			
ENG	493	Senior Seminar	3
(To be taken at or near the end of the program)			

One of the following courses in Genres: 3

ENG	307	Poetry
ENG	308	Fiction
ENG	309	Drama

At least **three** courses in Literature in Historical Perspective, chosen with the approval of the major advisor, two of which must comprise a sequence of American or British literature at the 200 level (i.e., ENG 210 and ENG 212 or ENG 231 and ENG 232), while the third must be at the 300 level or above 9

At least **two** courses in Major Writers, at least one of which must be in Shakespeare 6

At least **one** course in Literary Theory 3

At least **one** course in The English Language and Linguistics (FL 100 and ENG 106 may be counted, but not double counted for Foreign Language) 3

Courses in Writing as follows:

Three of the following courses 9

ENG	315	Creative Writing: Poetry
ENG	316	Creative Writing: Fiction
ENG	317	Creative Nonfiction
ENG	318	Creating Writing: Drama

One of the following courses 3

ENG	325	Nature Writing in the West
ENG	414	Advanced Writing Workshop

TOTAL 45

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

A total of 41 credits in English beyond 101 and 102 (FL 100 and ENG 106 may be counted, but not double counted for Foreign Language), distributed as follows:

ENG Courses		Titles	Credits
ENG	201	Intro. to Literary Study	3
(To be taken at or near the start of the program)			
ENG	493	Senior Seminar	3
(To be taken at or near the end of the program)			

One of the following courses in Genres: 3

ENG	307	Poetry
ENG	308	Fiction
ENG	309	Drama

At least **three** courses in Literature in Historical Perspective, chosen with the approval of the major advisor, two of which must be the American literature sequence at the 200 level (i.e., ENG 210 and ENG 212), while the third must be outside of American Literature at the 300 level or above 9

At least **one** course in Major Writers, at least one of which must be in Shakespeare 3

At least **one** course in Literary Theory 3

At least **two** courses in Writing, beyond ENG 101 and 102, one of which must be ENG 303 6

All of the following courses

ENG	352	English Syntax and Usage 3
ENG	412	Literature for Adolescents 2
ENG	452	History of the English Language 3

At least **3 credits** of English electives, chosen with the approval of the major advisor (General Education and Foreign Language requirements may not be double counted 3

TOTAL 41

CREATIVE WRITING MINOR

The English department coordinates a minor in creative writing, designed for students who are considering pursuing an MFA in creative writing upon graduation. Since, at the graduate level, the MFA degree specializes in either poetry, playwriting, creative non-fiction, or fiction, students are encouraged to focus on one of the genres. The Creative Writing Minor is also useful for students who intend to continue their creative activity after graduation.

Specific Requirements for the Creative Writing Minor

Courses		Titles	Credits
ENG	114	Introduction to Creative Writing	3
One of the following courses			3
ENG	315	Creative Writing: Poetry	
ENG	316	Creative Writing: Fiction	
ENG	317	Creative Nonfiction	
ENG	318	Creative Writing: Drama	
One of the following pairs, by genre			6
Poetry			
PHIL	102	Philosophical Literature	
ENG	414	Advanced Writing Workshop	
Fiction			
PHIL	102	Philosophical Literature	
ENG	414	Advanced Writing Workshop	
Creative Nonfiction			
ENG	414	Advanced Writing Workshop	
ENG	440	Magazine Writing	
Playwriting			
TH	111	Theater Appreciation	
ENG	414	Advanced Writing Workshop	
At least three of the following courses not used above:			9
ENG	303	Adv. Comp., Rhet., & Gr.	
ENG	315	Creative Writing: Poetry	
ENG	316	Creative Writing: Fiction	
ENG	317	Creative Nonfiction	
ENG	318	Creative Writing: Drama	
ENG	325	Nature Writing in the West	
ENG	352	English Syntax and Usage	
ENG	412	Literature for Adolescents	
ENG	440	Magazine Writing	
FL	100	Introduction to Comparative Linguistics	
Honors Seminars: as approved by advisor			
MCCNM	233	Script Writing	
MCCNM	422	Photojournalism	
PHIL	102	Philosophical Literature	
PHIL	401	History of Epistemology Seminar	
PSYCH	334	Perception	
TH	111	Theatre Appreciation	
		TOTAL	21

PROFESSIONAL WRITING MINOR

The English department coordinates a minor in professional writing, designed to prepare students for work in freelance writing and in editing and publishing, including Web-based publications. The interdisciplinary minor acquaints students with commercial writing markets, desktop publishing, corporate and technical communications, photojournalism, and Web-site design.

Specific Requirements for the Professional Writing Minor

Courses		Titles	Credits
ENG	303	Adv. Comp., Rhet., & Gr.	3
ENG/MCCNM	440	Magazine Writing	3
MCCNM	132	Website Design & Development	3
MCCNM	211	Desktop Publishing	3
Select **nine** credits of electives from the following list of courses:			9
ART	117	Digital Media Basics	
ART	276	Photography	
ART	281	Introduction to Graphic Design I	
ART	381	Introduction to Graphic Design II	
BUSAD	270	Business Communications	
ENG	305	Tech & Scientific Report Writing	
ENG	317	Creative Nonfiction	
ENG	452	History of the English Language	
MCCNM	240	Public Relations	
MCCNM	310	Advanced Desktop Publishing	
MCCNM	401	Digital Photographic Procedures	
MCCNM	402	Photojournalism	
MCCNM	422	Writing for Public Relations	
		TOTAL	21

FOREIGN LANGUAGES PROGRAM

The Foreign Languages Program offers a Bachelor of Arts in Spanish (BA) intended to prepare students for public school teaching and certification, for admission to graduate school, and for careers in international organizations, government, and business.

Minors in French, Italian, and Spanish complement a wide variety of majors in other disciplines to enhance the students' ability to compete for jobs where knowledge of a foreign language is desirable.

Courses in German, Russian, and Comparative Linguistics (listed under FL) are offered as permitted by enrollment. Student exchanges with foreign universities are encouraged.

Program Goals for Spanish Majors

Spanish Majors will achieve a level of proficiency in Spanish communication skills (listening, speaking, reading, writing) and in the understanding of Hispanic cultures sufficient to allow them to function effectively in careers in teaching, business, the media, government, the arts, etc.

These goals will be achieved by showing proficiency in the 5 C's:

1) **Communication:** The communication standard stresses the use of Spanish for communication in "real life" situations. It emphasizes "what students can do with language" rather than "what they know about language." Students are asked to communicate in oral and written form, to interpret oral and written messages, to show cultural understanding when they communicate, and to present oral and written information to various audiences for a variety of purposes.

2) **Cultures:** Cultural understanding is an important part of Spanish language education. Experiencing other cultures develops a better understanding and appreciation of the relationship between languages and other cultures, as well as the student's native culture. Students become better able to understand other people's points of view, ways of life, and contributions to the world.

3) **Connections:** Spanish-language instruction must be connected with other subject areas. Content from other subject areas is integrated with Spanish-language instruction through lessons or courses that are developed around themes common to other subject areas.

4) **Comparisons:** Students are encouraged to compare and contrast Spanish language and cultures with their own. They discover patterns, make predictions, and analyze similarities and differences across languages and cultures. Students often come to understand their native language and culture better through such comparisons.

5) **Communities:** Extending learning experiences from the Spanish-language classroom to the home and multilingual and multicultural community emphasizes living in a global society. Activities may include: field trips; use of e-mail and the Internet; participation in clubs, exchange or study-abroad programs, and cultural activities; school-to-work opportunities; and opportunities to hear speakers of Spanish at the University and in the classroom.

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.

NOTE:

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.

Placement in the Spanish course sequence:

1. Students who have taken no Spanish in high school or at another institution of higher learning begin with SPN 101.

2. Students who have taken Spanish in high school, but not at another institution of higher learning, must take a placement exam to determine their proper placement.

3. Heritage Spanish speakers (that is, students who speak Spanish at home to a greater or lesser extent), students with significant Spanish immersion experience, and students who have taken Spanish courses at other institutions of higher learning must meet with a Spanish advisor in order to determine correct placement. The advisor will place the student based on any of the

following or a combination thereof: an oral interview, the placement exam, a written composition.

Specific Requirements for the Spanish Major

In addition to the courses listed below, Spanish majors must also meet the following requirements:

1. A senior project in conjunction with a 400-level SPN course.
2. A second major, minor, or teacher education program.
3. Successful completion of the proficiency exams.
4. At least one upper-division SPN course must emphasize Latin America, one Spain.

Study abroad is strongly encouraged, especially for students planning to teach.

SPN Courses		Titles	Credits
SPN	101	Beginning Spanish I	3
SPN	102	Beginning Spanish II	3
SPN	201	Intermediate Spanish I	3
SPN	202	Intermediate Spanish II	3
SPN	203	Intermediate Proficiency Building	3
SPN	300	Spanish Phonetics and Phonology	3
SPN	301	Advanced Spanish Grammar	3
Two of the following courses			6
SPN	302	Conv & Comp: Mexico & Central America	
SPN	303	Conv & Comp: South America	
SPN	304	Conv & Comp: Caribbean	
SPN	305	Conv & Comp: Spain	
SPN	306	Conv & Comp: United States	
And **all** of the following:			
SPN	310	Introduction to Hispanic Literature	3
Three upper-level electives, of which at least two must be 400-level			9
		TOTAL	39

General Education	35
Spanish Major	39
Minor or Teacher Ed	20-37
Electives	9-26
Total	**120**

Specific Requirements for the Spanish Minor

SPN Courses		Titles	Credits
SPN	101	Beginning Spanish I	3
SPN	102	Beginning Spanish II	3
SPN	201	Intermediate Spanish I	3
SPN	202	Intermediate Spanish II	3
SPN	203	Intermediate Proficiency Building	3
SPN	300	Spanish Phonetics and Phonology	3
SPN	301	Advanced Spanish Grammar	3
One other 300- or 400-level SPN course			3
		TOTAL	24

Specific Requirements for the French Minor

FRN Courses		Titles	Credits
FRN	101	Beginning Spoken French I	4
FRN	102	Beginning Spoken French II	4
FRN	201	Intermediate French I	4
FRN	202	Intermediate French II	4
French Electives above 300*			7
		TOTAL	23

* (Preferably through foreign exchange program)

Specific Requirements for the Italian Minor

ITL Courses		Titles	Credits
ITL	101	Introduction to Italian I	4
ITL	102	Beginning Spoken Italian II	4
ITL	201	Intermediate Italian I	4
ITL	202	Intermediate Italian II	4
Italian Electives above 300*			7
		TOTAL	23

* (Preferably through foreign exchange program)

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 advisors monitor each student's progress towards completing major requirements and meeting the program goals listed in the catalog. Advisors report any problems or deficiencies in the program encountered by the students to the program assessment committee through the department chair.

- All Spanish majors complete a senior project emphasizing professional standards and sharpening the writing and speaking skills students have acquired in other Spanish courses. All students will be required to submit a copy of their project to the Program Assessment Committee for review.

- An exit exam evaluates proficiency in listening, speaking, reading, and writing as well as their understanding of Hispanic cultures.

- The Program Assessment Committee reviews the senior projects and the results of the exit exam on an annual basis and prepares an analysis of what is revealed about the program's success.

- The Program Assessment Committee administers a student-satisfaction questionnaire to all senior foreign languages majors and minors each year. A similar questionnaire is sent to recent graduates on a periodic basis.

- The Program Assessment Committee monitors the foreign languages curricula at leading comparable institutions and apprises the department of innovations worthy of consideration.

HISTORY/ POLITICAL SCIENCE/ PHILOSOPHY/GEOGRAPHY DEPARTMENT

Department Chair: B. Spade
Faculty: Berardi, Carter, Harris, Gose, Loats, Matusiak, Rees, Sandoval, Spade,

The programs in history, political science, philosophy, and geography are intended to provide domains of study both for students who desire knowledge for personal enrichment and for students who desire to apply knowledge toward career objectives. Students who major or minor in the fields of the department should expect to develop and refine knowledge of other cultures and the historical and political development of the modern world. Students should also expect to engage in methodical research. Other expectations of students include the ability to prepare rationally cogent papers and the ability to understand political theories, historical movements, and the connections between each.

Departmental programs not only prepare students for occupations in government, business, education, and industry, but also are central to the University's traditional function of transmitting culture from generation to generation.

HISTORY PROGRAM

The major in history leads to the degree of Bachelor of Arts (BA) or Bachelor of Science (BS) and prepares students for careers in teaching, law, government, and private enterprise, as well as entry into graduate programs.

Program Goals

- To provide students with a general knowledge of history and historical methodology;

- To prepare students, through training in communication skills and in research methods, to gain knowledge of a given area of history;

- To prepare students to continue personal study and learning about specific subject areas in the discipline on an independent basis;

- To prepare students to engage in critical thinking; and

- To introduce students to the theoretical frameworks that serve as the foundation of historical scholarship.

Expected Student Outcomes

General Requirements

No grade below C- is acceptable in the major or minor.

Core 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
		TOTAL	21

Requirements for the Bachelor of Arts Degree in History

Students must complete the "Core Requirements for the History Major" as outlined above, plus 15 hours of history electives. A minimum of two semesters of college level foreign language is required for the BA degree in History; more is recommended. The BA degree in History is appropriate for students planning to attend graduate or law school.

Requirements for the Bachelor of Science Degree in History: General Emphasis

Students must complete the "Core Requirement for the History Major" outlined above, plus 21 hours of history electives (at least fifteen hours to be upper level). This emphasis is designed for those students who intend to enter business or government directly after graduation.

Requirements for the Bachelor of Science Degree in History: Secondary Education Emphasis

The Secondary Education emphasis for the History Major leads to the degree of Bachelor of Science (BS) and prepares students for teaching at the middle and high school level. Students must complete the "Core Requirements for the History Major" listed above, 15 hours of history electives, the "Social Science Courses Required for Certification" listed below, and all requirements of the Teacher Education Program.

Other Social Science Courses Required for Certification

Courses		Titles	Credits
ECON	201	Principles of Macroeconomics	3
GEOG	101	Physical Geography	3
GEOG	103	World Regional Geography	3
POLSC	101	American National Politics	3
POLSC	102	State and Local Governments	3
		TOTAL	15

Specific Requirements for the History Minor

HIST Courses		Titles	Credits
Nine hours selected from the following courses:			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 advisor			9
		TOTAL	21

Outcomes Assessment Activities

- Demonstrated proficiency in writing coherent and accurate essays on specific topics within the discipline, as determined by the history faculty.
- Portfolios will be maintained for each student who has declared history as a major or minor. Portfolios will include academic transcripts, major papers written for courses in the discipline, and other pertinent information. The portfolios will be on file in the department office. Updated copies of all course syllabi will be kept in a central file in the department office to enable qualified students to discover how courses are adapted towards program goals.

PRE-LAW

Advisors: Dr. Gayle Berardi and Dr. Beatrice Spade

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

POLITICAL SCIENCE PROGRAM

The major in political science leads to the degrees of Bachelor of Arts (BA) and Bachelor of Science (BS), and prepares undergraduates for careers in law, government and politics. Courses in political science also serve to complement the liberal arts core at CSU-Pueblo and to prepare students for acceptance into graduate programs leading to professional degrees in law, public administration, or to specialized academic degrees.

Four areas of emphasis are offered in the political science major: public administration and public policy, global studies, American political institutions and politics, and secondary education.

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, global studies, 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 global studies.

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 political science courses.
- Students in the minor must complete a minimum of 21 semester credit hours in political science, including 9 semester credit hours in the political science core. Students are required to earn a grade of C- or better in all political science courses.
- 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 three credit hours towards the 21 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.

Required Core Requirements for the Political Science Major

POLSC Courses		Titles	Credits
POLSC	101	American National Politics	3
POLSC	202	World Politics	3
POLSC	240	Political Analysis	3
POLSC	370	Political Thought	3
POLSC	493	Seminar	3
		TOTAL	15

EMPHASIS AREAS IN POLITICAL SCIENCE

The political science program offers four areas of emphasis: Public Administration and Public Policy; Global Studies; and American Political Institutions and Politics, and Secondary Education The suggested courses for each area are as follows:

Emphasis in Public Administration and Public Policy

Especially appropriate areas for criminal justice, environmental studies, not-for-profit administration and management, and urban and state politics. See a political science advisor for further information.

POLSC Courses		Titles	Credits
POLSC		Required Core Courses	15
POLSC	102	State and Local Government and Politics	3
POLSC	250	Research Methods in Political Science	3
POLSC	330	Introduction to Public Admin.	3
POLSC	340	Public Policy	3
POLSC	480	Practicum in Politics and Public Service	6
Political Science Elective			3
		TOTAL	36

Emphasis in Global Studies

The Global Studies emphasis helps prepare students for a variety of careers, including jobs in the foreign service, national security, the military, international

business, international law, and various global health and humanitarian organizations (to mention just a few). In addition, focusing on Global Studies provides an excellent background for graduate study in many disciplines such as international relations, comparative politics, law, business, and national security studies.

POLSC Courses		Titles	Credits
POLSC		Required Core Courses	15
POLSC	201	Comparative Politics	3
Two of the following Area Studies:			6
POLSC	440	Europe	
POLSC	445	Latin America	
POLSC	450	Asia and the Pacific	
POLSC	455	Africa and the Middle East	
PLUS			
POLSC	480	Practicum in Politics and Public Service	3
Select **three** courses from the following:			9
POLSC	200	Understanding Human Conflict	
POLSC	250	Research Methods in Political Science	
POLSC	305	International Relations	
POLSC		Area Studies Courses (not taken above)	
		TOTAL	36

Emphasis in American Political Institutions and Politics

Pursuing the emphasis area in American Political Institutions and Politics will prepare students for careers in political campaigning, legislative or administrative service, the law, and public policy development. In addition, the emphasis area will provide the necessary writing and critical thinking skills for graduate and law school.

POLSC Courses		Titles	Credits
POLSC		Required Core Courses	15
POLSC	102	State and Local Government and Politics	3
POLSC	480	Practicum in Politics and Public Service	3
Political Science Electives from the following:			15
POLSC	250	Research Methods in Political Science	
POLSC	300	Political Parties and Elections	
POLSC	320	Legal Research Methods	
POLSC	321	American Constitutional Development	
POLSC	323	Criminal Law & Procedure	
POLSC	324	Family Law	
POLSC	340	Public Policy	
POLSC	405	The American Presidency	
POLSC	411	Legislatures & Legislation	
POLSC	473	American Political Thought	
		TOTAL	36

Emphasis in Secondary Education

The Secondary Education emphasis prepares students for teaching at the middle and high school level. Students must complete the "Core Requirements for the Political Science Major" listed above, 15 hours of political science electives, the "Social Science Courses required for Certification" listed below, and all requirements of the Teacher Education Program.

Other Social Science courses Required for Certification

Courses		Titles	Credits
ECON	201	Principles of Macroeconomics	3
GEOG	101	Physical Geography	3
GEOG	103	World Regional Geography	3
HIST	101	World Civilization to 1100	3
HIST	102	World Civilization from 1100-1800	
		OR	
HIST	103	World Civilization Since 1800	3
HIST	201	U.S. History I	3
HIST	202	U.S. History II	3
		TOTAL	21

Specific Requirements for the Political Science Minor

POLSC Courses		Titles	Credits
POLSC	101	American National Politics	3
POLSC	201	Comparative Politics	
		OR	
POLSC	202	World Politics	3
POLSC	240	Political Analysis	3
Political Science Electives			12
		TOTAL	21

Outcomes Assessment Activities

- Demonstrated proficiency in writing coherent and accurate essays on specific topics within the discipline, as determined by the political science faculty.

- Portfolios will be prepared for incoming freshmen and/or transfer students with two or more years before graduation. Portfolios will include academic transcripts, major papers written for courses in the discipline, co-curricular data, and other pertinent information. The portfolios will be on file.

PHILOSOPHY PROGRAM

The minor in philosophy complements majors and careers in politics, law, literature, health care, business, technologies, and the liberal arts.

Program Goals

- To provide individual courses as well as an academic minor in general philosophy;

- To help students understand and appreciate the great ideas from philosophy, to see such ideas in relation to the cultural settings, to develop the abilities to think, speak, and write in a clear, analytical manner, and to allow students to develop a viable philosophy of life.

Expected Student Outcomes

General Requirements

Students who wish to minor in philosophy must complete a minimum of 18 credit hours of approved philosophy courses with grades of C or better.

Specific Requirements for the Philosophy Minor

PHIL	Courses	Titles	Credits
PHIL	102	Philosophical Literature	3
PHIL	201	Classics in Ethics	3
PHIL	204	Critical Reasoning	
		OR	
PHIL	205	Deductive Logic	3
PHIL	293	History of Philosophy Seminar I	3
PHIL	393	History of Philosophy Seminar II	3
PHIL	493	History of Philosophy Seminar III	3
		TOTAL	18

Outcomes Assessment Activities

- Students must demonstrate proficiency in writing defenses of theses on philosophical topics as determined by the philosophy faculty. A file of representative samples of philosophical writing by students will be retained to document to qualified persons that students are accomplishing the goal of developing the ability to think and write in a clear analytical manner.

GEOGRAPHY

The department extends classes in Geography primarily for students who wish to gain Colorado teacher licensure. There is no major or minor in Geography, but students majoring in a variety of areas would benefit from the Geography classes; e.g., History and Political Science.

LIBERAL STUDIES PROGRAM

Dr. Victoria Marquesen, Coordinator

The Liberal Studies major, which leads to a B.S. degree, is intended to provide a strong liberal arts education for future elementary education teachers. Core requirements build upon students' experiences in General Education to provide both breadth and depth in the arts and humanities, English, math, sciences, and social sciences. Required courses provide support in each area of the Colorado *K-6 Model Content Standards.* Students are required to select an area of concentration or emphasis for an additional 12 hours of study. Areas of concentration may be chosen from Art, English, Health, History, Language and Linguistics, Leadership, Math, Modern Foreign Languages, Music, Political Science, Psychology, Science, and Sociology.

This degree is approved for students in Elementary Education. Students completing the Liberal Studies major are **required** to minor in Education.

Program Goals

At CSU-Pueblo, teacher education is a campus wide responsibility, and overall program goals reflect components of both the Liberal Studies major and Education minor. It is the purpose of the Liberal Studies major to assure that students will develop breadth and depth of knowledge of the liberal arts, and it is the responsibility of the Education minor to assure students become proficient at transforming this knowledge into curriculum and instruction for young children.

It is the joint responsibility of both the major and minor to prepare future teachers to evaluate information critically, to study and research independently, and to

communicate knowledge effectively. The following four program goals have been established for the Liberal Studies Degree. Goal 1 is largely the responsibility of the Liberal Studies major and Goal 4 the responsibility of the Elementary Education minor; benchmarks for Goals 2 and 3 have been designed across the entire degree program.

1. Acquisition of Knowledge. Graduates are broadly educated in the liberal arts and sciences:

   - Understanding the significant ideas, concepts, structures and values within disciplines, including theoretical, ethical, and practical implications.
   - Mastering content knowledge in all areas taught in elementary schools: the arts, math literature and language, social sciences, sciences, and human development and learning.
   - Balancing a breadth of knowledge in the liberal arts and sciences with depth of knowledge within a discipline.

2. Construction of Knowledge. Graduates demonstrate habits of thinking, including analytical skills, independent thinking, reasoned judgment, mature values, and imagination:

   - Utilizing the tools of inquiry of the humanities, arts, mathematics, and behavioral, social, and natural sciences to understand and evaluate ideas.
   - Developing habits of critical intellectual inquiry, including self-direction and self-reflection.
   - Making connections from different intellectual perspectives and multiple viewpoints to form cross-disciplinary connections.
   - Utilizing research skills of the liberal arts and sciences, including library and data retrieval skills, to study and evaluate information.

3. Communication of Knowledge. Graduates communicate effectively:

   - Writing clearly in a variety of academic and practical formats.
   - Speaking effectively in a variety of settings.
   - Utilizing technology as a tool to inform and communicate.

4. Application of Knowledge. Graduates create standards-based learning experiences that make knowledge accessible, exciting, and meaningful for all students:

   - Using multiple representations and explanations of disciplinary concepts that capture key ideas and link them to students' prior understandings.
   - Using different viewpoints, theories, "ways of knowing,' and methods of inquiry in teaching of subject matter content.
   - Evaluating curriculum for their comprehensiveness, accuracy, and usefulness for representing particular ideas and concepts.
   - Engaging students in generating knowledge and testing hypotheses according to the methods of inquiry and standards of evidence used in the discipline
   - Developing and using curricula that encourage students to see and interpret ideas from diverse perspectives.
   - Creating interdisciplinary learning experiences that allow inquiry from several subject areas.

Program Design

The program is planned as a coherent whole, with four components:

1. **General Education**

   Specific **General Education** courses form the foundation of knowledge for all students with this major. These courses fulfill CSU-Pueblo graduation requirements and are essential to meet many of the content standards for elementary teachers. Courses in the arts and humanities, English, math, history, sciences, and social sciences contribute to the General Education core.

2. **Liberal Studies Core**

   Liberal Studies Core requirements build upon students' experiences in General Education to provide both breadth and depth to the program to meet program goals. Emphasis is placed on each

area relative to K-6 content standards to assure depth of knowledge in the humanities, social sciences, math, and sciences.

3. **Liberal Studies Area of Emphasis in a Specific Discipline**

   Students are required to select an area of concentration or emphasis and, in consultation with an advisor, develop a plan for study for an additional 12 hours in Liberal Studies. The plan should include goals to be achieved by the concentration and the sequence of courses to achieve the goals. Areas of concentration may be chosen from art, English, health, history, language and linguistics, math, modern foreign languages, music, political science, psychology, science, and sociology. Elementary Education has special requirements for admission and retention. Please refer to the section in the catalog for this information.

4. **Education Minor**

   All students must complete a minor in Education. The Education minor, which has been developed to coordinate with the major, requires completion of 37 credit hours. Education has special requirements for admission and retention. Please refer to the section in the catalog for this information.

Program Assessment

Assessment will be ongoing, with evaluations at three check points (admission to education, admission to student teaching, and program completion), as well as follow-up assessments at the end of one year after program completion. Student outcomes will be evaluated through, a) formal assessments at the sophomore (*e.g., Academic Profile*) and senior level (PRAXIS Elementary Education Content Exam), b) faculty recommendations of student progress, c) portfolio assessment, and d) assessment of the application of knowledge in students' field experiences and student teaching. The contents of the electronic portfolio required of all students will include representative work from courses, as well as student-directed evaluations of progress.

The Teacher Education Board, consisting of faculty from each Liberal Studies discipline, will have primary responsibility for evaluation of the program; and the Associate Dean for Education will assume responsibility for gathering program evaluation information and reporting to the Board.

Requirements For The Liberal Studies Major

Requirements for admission and retention in teacher education are included in the description of the *Teacher Education Program* in this catalog and in the Teacher Education Handbook.

Students must receive a grade of C- or greater in all courses listed as requirements; a minimum cumulative GPA of 2.500 in the major is required for admission to student teaching.

GENERAL EDUCATION REQUIREMENTS

General Education Skill Requirements

Courses		Titles	Credits
ENG	101	English Composition I	3
ENG	102	English Composition II	3
MATH	156	Introduction to Statistics	3

General Education Knowledge Requirements

Courses		Titles	Credits
BIOL	100	Principles of Biology	3
BIOL	100L	Principles of Biology Lab	1
ENG	130	Introduction to Literature	3
GEOG	103	World Regional Geography	3
GEOL	101	Earth Science	3
GEOL	101L	Earth Science Lab	1
PSYCH	151	Human Development	3
SPCOM	103	Speaking and Listening	3

One of the following: 3

ART	100	Visual Dynamics	3
MUS	118	Music Appreciation	3
TH	111	Theatre Appreciation	3

One of the following: 3

HIST	101	World Civilization to 1100	3
HIST	102	World Civilization from 1100 to 1800	3
HIST	103	World Civilization since 1800	3

Students are not allowed to count the same courses completed for general education requirements as course requirements in the Liberal Studies major, including those in concentrations.

Total General Education Required **35**

LIBERAL STUDIES CORE REQUIREMENTS

Courses	Titles	Credits

ENGLISH (8 hours)

ENG	351	Children's Literature	2
ENG	303	Advanced Composition, Rhetoric and Grammar	3
One Upper Division Literature Course			3

FINE ARTS (3 hours)

One of the following (not completed for General Education):			3
ART	100	Visual Dynamics	3
MUS	118	Music Appreciation	3
TH	111	Theatre Appreciation	3

MATH (9 hours)

MATH	360	Elem. Concepts of Mathematics I	3
MATH	361	Elem. Concepts of Mathematics II	3
MATH	362	Problem Solving for Elementary Teachers	3

SCIENCE (4 hours)

PHYS	150/		
CHEM	150	Elementary Concepts in Physics and Chemistry	4

SOCIAL SCIENCE (9 hours)

POLSC	101	American National Politics	3
PSYCH	342	Educational Psychology	3
One of the following:			3
HIST	201	U.S. History I	3
HIST	202	U.S. History II	3

Total Core Requirements 33

REQUIRED CONCENTRATION IN DISCIPLINE AREA (12 HOURS)

Students are required to select <u>one</u> of the following concentration areas of 12 hours. All students should meet with an advisor in the area of concentration and develop the goals to be achieved by completion of the concentration and the sequence of courses to achieve the goals.

ART

ART	211/or		
	212	History of Art I/II	3
Studio Art Course			3
Art courses numbered 300 or above			6

ENGLISH

ENG	201	Introduction to Literary Study	3
9 hours, 3 hours of which must be in courses Numbered 300 or above			9

HEALTH

EXHP	162/L	Personal Health/Lab	4
EXHP	201	Drugs & Healthy Lifestyles	3
EXHP	232	First Aid	2
EXHP	382	Lifestyle Disease Risk Reduction	3

HISTORY

HIST	201/or		
	202	U.S. History I/II (whichever class not completed in core	3
HIST	300	Historiography	3
History courses numbered 300 or above			6

LANGUAGE AND LINGUISTICS

ANTHR	106	Language Thought & Culture	3
ENG	352	English Syntax and Usage	3
FL	100	Intro to Comparative Linguistics	3
SPCOM	260	Language Acquisition and Linguistics	3

LEADERSHIP

US	160	Introduction to Leadership	3
US	260	Leadership in Service Organizations	3
US	360	Applied Leadership	3
US	460	Working with Experienced Leaders	3

(Prerequisite: Acceptance into President's Leadership Program)

MATH

MATH	126	Calculus and Analytic Geometry I	5
MATH	207	Matrix and Vector Algebra	2
MATH	224	Calculus and Analytic Geometry II	5

MODERN FOREIGN LANGUAGE

All students will be required to complete a Placement Test to determine the level at which they will begin a language. Twelve hours in the language will be planned with a language faculty advisor. For students placed in the first level of the language, 12-hour concentrations are listed below.

<u>FRENCH</u>

FRN	101	Beginning Spoken French I	4
FRN	102	Beginning Spoken French II	4
FRN	201	Intermediate French I	4

<u>ITALIAN</u>

ITL	101	Introduction to Italian I	4
ITL	102	Introduction to Italian II	4
ITL	201	Intermediate Italian I	4

SPANISH

SPN	101	Beginning Spanish I	3
SPN	102	Beginning Spanish II	3
SPN	201	Intermediate Spanish I	3
SPN	202	Intermediate Spanish II	3

MUSIC

MUS	100	Music Fundamentals I: Notation	2
MUS	105	Music Fundamentals II: Foundations	2
MUS	118	Music Appreciation (if taken as core course, 3 elective hours may be taken	3
MUS	127	Functional Piano Class	1
MUS	160-179	Applied Lesson	2
VARIES		Music Ensemble	2
MUS	101	Music Performance Symposium I	0

POLITICAL SCIENCE

POLSC	240	Political Analysis	3
POLSC courses numbered 300 or above			9

PSYCHOLOGY

PSYCH	251	Infancy, Childhood, and Preadolescence	3
9 hours from the following			9
PSYCH	220	Drugs & Behavior	3
PSYCH	231	Marriage & Family Relationships	3
PSYCH	311	Theories of Personality	3
PSYCH	336	Learning	3
PSYCH	337	Memory & Cognition	3
PSYCH	352	Social Psychology	3
PSYCH	353	Advanced Developmental Psychology	3
PSYCH	362	Abnormal Psychology	3
PSYCH	463	Psychopathology of Childhood	3
PSYCH	465	Behavior Modification	3

SCIENCE

One Biology, One Chemistry, and One Physics Course and Labs; examples include:

BIOL	121/L	Environmental Conservation/Lab	4
BIOL	191/L	College Biology I/Botany/Lab	5
BIOL	206/L	Intro to Microbiology /Lab	4
CHEM	101/L	Chemistry and Society/Lab	4
CHEM	111/L	Principles of Chemistry/Lab	4
CHEM	121L	General Chemistry/Lab	5
PHYS	110/L	Astronomy/Lab	4
PHYS	140/L	Light, Energy, and the Atom	4
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	221/L	General Physics I/Lab	5

SOCIOLOGY

SOC	101	Introduction to Sociology	3
9 hours from the following; 6 must be upper division			9
SOC	105	Understanding Human Diversity	3
SOC	155	Minority and Ethnic Relations	3
SOC	201	Social Problems	3
SOC	206	Gender and Society	3
SOC	231	Marriage and Family Relationships	3
SOC	306	Delinquency and Juvenile Justice	3
SOC	308	Popular Culture	3
SOC	354	Urban Sociology	3
SOC	355	Political Sociology	3
SOC	356	Social Stratification	3
SOC	403	Human Sexuality and Social Behavior	3
SOC	404	Poverty	3
SOC	407	Family Violence	3

Required Concentration in Discipline Area 12
(See concentrations listed above)

Elementary Education Requirements 40

PROGRAM REQUIREMENT TOTAL 120

MASS COMMUNICATIONS DEPARTMENT AND CENTER FOR NEW MEDIA

Department Chair: Jennifer Mullen
Faculty: Ebersole, Joyce, Lovato, Mullen, Orman, Steffen

KTSC-FM Manager: Matt Garbiso

The Mass Communications Department and Center for New Media supports the mission of the University by offering an applied major in which technological innovation is grounded in a traditional humanities and social sciences curriculum. Students are prepared for careers in the media and related disciplines while also being given the 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 journalism reporting and editing for news, features and sports; advertising copywriting,

design and sales; digital video and audio production for radio, television, and the Internet; interactive multimedia application for the Internet; and strategic public relations for government, nonprofits, and business.

Emphasis areas require 21 additional credit hours of course work beyond the mandatory 21-credit hour core for completion of the major. Selected professional courses may have course specific fees. Please consult your advisor.

The TODAY, the University's newspaper, is published as a laboratory tool of the Mass Communications department. The newspaper serves the students, faculty and staff of CSU-Pueblo 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 advisor is a member of the Mass Communications faculty. Prerequisites: MCCNM 201 and declared major or minor.

KTSC-FM is licensed to CSU-Pueblo as an educational radio station by the Federal Communications Commission. Operated by the Mass Communications department, the 10,000-watt station serves a 50-mile radius of the campus. Advanced Mass Communications students are involved in daily programming, production, and news. Prerequisites: Declared major or minor in Mass Communications, MCCNM 141 and 150.

KTSC-TV, a Public Broadcasting full-power station affiliated with Rocky Mountain Public Broadcasting and CPB, provides laboratory training and on-campus labs for television students in the KTSC Studio. Prerequisites: Declared major or minor in Mass Communications, MCCNM 142.

The Center for New Media is a cooperative effort between CSU-Pueblo and Pueblo Community College. As such, the Center provides additional resources and experiences for students, including opportunities to work in field production with a digital, six-camera production truck and advanced computer laboratories.

Department Goal

The primary goal of the Mass Communications Department/Center for New Media is to offer a pragmatic and professionally oriented program aimed at preparing majors for successful careers in the media and related areas and to prepare students for graduate study.

Expected Student Outcomes

General Requirements

- Majors are required to specialize in one of five emphasis areas offered by the department:

  - Advertising
  - Broadcasting (TV and Radio Production)
  - New Media Studies
  - News Editorial-Journalism
  - Public Relations

- Successful Mass Communications majors will demonstrate sufficient knowledge, comprehension and analytical skills by the ability to evaluate specific communication events in the proper context of their emphasis area.

- Each faculty member will keep, in the department's central file, a set of course outlines or syllabi that list the objectives and skills achieved during the semester. This central pool of materials describes the detailed expectations and accountability elements for the Mass Communications/ Center for New Media major on a course-by-course basis.

- Writing skills are foundational for the entire program of Mass Communications/Center for New Media at CSU-Pueblo. Students are required to maintain a minimum grade-point average of 2.500. Basic core courses must be satisfactorily completed before advanced work in an emphasis area will be encouraged.

- Consistent with general CSU-Pueblo policy, no student enrolled in Mass Communications/Center for New Media courses may accumulate unexcused absences, or arrive late for scheduled classes without faculty consultation.

- The Mass Communications department believes that grades are valid quantitative indicators of student performance. Students' GPAs in the major or minor will be used by emphasis area advisers for both formative and summary evaluations of majors and minors.

- Students graduating with either a BA or BS degree must achieve a total grade-point average of 2.500 within the major. The GPA will be calculated on all courses with the MCCNM prefix appearing on the student's transcript.

- Students graduating from the University and majoring in Mass Communications/Center for New Media should pass all MCCNM courses with a grade of C or better, but students will not be required to repeat D grades as long as the 2.500 MCCNM grade point average is achieved.

- While it is necessary for Mass Communications/ Center for New Media majors and minors to meet the minimum GPA standards set by the department and the University, it is expected that graduates will exceed these standards.

The Mass Communications/Center for New Media Major:

Specific Requirements for the Mass Communications/Center for New Media Major Core

MCCNM Courses		Titles	Credits
MCCNM	101	Media and Society	3
MCCNM	102	Introduction to Electronic Media.	3
MCCNM	201	News Writing	3
MCCNM	216	Advertising	3
MCCNM	240	Public Relations	3
MCCNM	411	Media Law	3
MCCNM	493	Mass Media Seminar	3
		TOTAL	21

Specific Requirements for the Emphasis in Advertising: Patricia Bowie Orman, adviser

MCCNM Courses		Titles	Credits
MCCNM	302	Advertising Writing	3
MCCNM	350	Media Lab	1-3
MCCNM	425	Audience Research Methods	3
MCCNM	430	Integrated Comm. Campaigns	3
MKTG	340	Principles of Marketing	3
MCCNM Electives			6-8
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in Broadcasting: Sam Lovato, adviser

MCCNM Courses		Titles	Credits
MCCNM	141	Digital Audio Production	3
MCCNM	142	Digital Video Production and Operation.	3
MCCNM	150	Regulation of Telecomm	3
MCCNM	233	Script Writing	3
MCCNM	320	Broadcast Station Programming	3
MCCNM	350	Advanced Media Lab	3
MCCNM Elective		(Radio or TV)	3
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in Public Relations: Jennifer Mullen, adviser

MCCNM Courses		Titles	Credits
MCCNM	202	Feature Writing	3
MCCNM	311	Copy Editing	3
MCCNM	321	PR Case Problems	3
MCCNM	422	Writing for Public Relations	3
MCCNM	430	Integrated Comm. Campaigns	3
MCCNM	425	Audience Research Methods	3
MCCNM Electives			3
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in New Media Studies: Sam Ebersole, adviser

MCCNM Courses		Titles	Credits
MCCNM	132	Web Site Design and Dev	3
MCCNM	141	Digital Audio Production	3
MCCNM	142	Digital Video Production and Operations	3
MCCNM	238	Multimedia Applications	3
MCCNM	336	Interactive Media and Interface	3
MCCNM	382	Digital Media Post Production	3
MCCNM Elective			3
		TOTAL	21 + 21 Core = 42

Specific Requirements for the Emphasis in News-Editorial Journalism: Richard Joyce, Leticia Steffen, advisers

MCCNM Courses		Titles	Credits
MCCNM	202	Feature Writing	3
MCCNM	211	Desktop Publishing	3
MCCNM	305	News Reporting	3
MCCNM	311	Copy Editing	3
MCCNM	350	Media Lab	1-3
MCCNM	445	Reporting Public Affairs	3
MCCNM Electives			3-5
		TOTAL	21 + 21 Core = 42

Co-curricular Requirements

1) The thrust of the Mass Communications Department/Center for New Media is pragmatic, therefore, all students are encouraged to be involved in opportunities provided by participation in the following media labs:

   - Desktop Publishing and design
   - *TODAY* newspaper: News Editorial and Advertising
   - KTSC-FM (on-campus radio station) KTSC-TV (on campus PBS affiliated station)
   - CNM Productions (remote production truck)

   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. Internships are awarded at the discretion of the adviser.

2) In addition, Mass Communications/Center for New Media majors and minors are encouraged to join and participate in additional co-curricular activities on campus and through community and University projects.

Specific Requirements for the Mass Communications/Center for New Media Minor

Students desiring a minor in Mass Communications/ Center for New Media must complete 21-credit hours approved by their minor area advisor and MUST include MCCNM 101 and 201. The minor may not include more than 3 credits of laboratory work and must include at least 6 hours of upper division course work.

Outcomes Assessment Activities

Student success is measured through a variety of methods that include classroom writing samples, portfolios of student work, professional internship evaluations, exit interviews, student employment upon graduation, and alumni feedback.

Each major or minor is encouraged to maintain an academic portfolio of all salient work or projects completed while in the department. Department faculty will review and evaluate a selection of portfolios in the spring of each year to track student progress. Each emphasis area adviser also maintains a file.

The Mass Communications Department/Center for New Media insists that the academic portfolio demonstrate a pattern of sustained academic growth and development of the major and minor, appropriate to the student's emphasis area.

The academic portfolio should reflect the quality and level of intellectual and scholarly work undertaken by the student while in the department, relative to the qualitative, quantitative, ethical, legal and aesthetic dimensions of the field. The appropriateness of the content is dictated by the student's emphasis area and is prescribed by the individual's advisor.

A student may be required to participate in an exit interview during his or her final semester. Students are selected on a random basis from enrollments in the department's capstone course, Mass Media Seminar.

MILITARY SCIENCE (US ARMY)

(Reserve Officers' Training Corps Program)

Professor of Military Science: Lieutenant Colonel Kathy Ensworth; **Assistant Professors of Military Science**: Major Greg Cyr, **Senior Military Science Instructors**: Sergeant First Class Gener Molina, Sergeant First Class Steven Ruterbories

The Army ROTC Program

The focus of this program is to recruit, develop, and commission college-educated men and women to serve in the United States Army. Participants in the program are commissioned as a Second Lieutenant in the Army upon graduation with a bachelor's degree. They will be expected to serve in either the active Army or in the Reserve Components (Army Reserves or Army National Guard) after commissioning.

The program is centered on teaching the principles of leadership. These principles can be applied to positions in the military or in civilian careers. All courses of instruction are designed to develop leadership and management skills as well as enhance the self-confidence and initiative of each student.

Military Science is taken in addition to the required courses for each student's major.

ROTC is a four-year program that is divided into two phases: the Basic Course and the Advanced Course.

A minor in Military Science is available for qualified students.

The Basic Course

The focus for these lower division courses (MSL 100/200 courses) is to lay a foundation for more advanced instruction in the skills needed to be a successful leader. Students may participate even if they do not plan on receiving a commission in order to gain experience in leadership and management.

This phase is open to all qualified students (generally freshmen and sophomores). Students should be aware that there are some physical requirements for successful course completion.

There is no military obligation for participation in the Basic Course unless a student is receiving an Army ROTC Scholarship.

Sophomores wanting to complete the Basic Course requirements so that they may enter the Advanced Course can compress the Basic Course and/or attend the Leader's Training Course during the summer between their sophomore and junior years. For further information please see below and contact the Department of Military Science.

The Advanced Course

The Advanced Course (MSL 300/400 level courses) is oriented to preparing students (juniors and seniors) who have successfully completed the basic course requirements with the skills and knowledge necessary to be commissioned as a Second Lieutenant in the Army. The focus of the Advanced Course continues on building leadership skills and abilities.

Students participating in the Advanced Course have a contractual obligation to complete the program and enter the Army upon graduation.

Students must have a minimum of four semesters remaining in their course work before graduation to participate in the Advanced Course and they must be in a full-time status (12 credit hours per semester) during each of those semesters.

Credit for the Basic Course for entry into the Advanced Course may be achieved in a number of ways. The normal progression is to successfully complete all four Basic Course Military Science classes (MSL 101, 102, 201 and 202) with a grade of "C" or better. Students can also enter the course laterally by receiving credit for one of the following:

- Prior enlisted service in the Army, Air Force, Navy or Marines
- Participation of a minimum of three years in a JROTC program
- At least one year as a service academy cadet
- Successful completion of the Army ROTC Leaders Training Course (LTC). This training is available to students who did not have the opportunity to participate in any of the above programs. The five-week camp is conducted every summer at Fort Knox, KY. Participants receive pay while attending. The Army pays travel and some other expenses. Students who participate will be required to contract before attending. For more information contact the Department of Military Science.

Students participating in the Advance Course will be required to attend the Leadership Development and Assessment Course (Advanced Camp) which is conducted annually at Fort Lewis, Washington. This course is normally attended during the summer between a student's junior and senior year. It is a 32-day event that provides the best professional training and evaluation for all students participating in ROTC before commissioning. The course mission includes continued military training and leadership development, but the primary focus is to evaluate each student's officer potential. This course represents the only opportunity in ROTC to gather all qualified students from across the nation on one "level playing field" for the purpose of making those assessments. Successful completion of the course is mandatory for commissioning

Course Offerings

Basic Course

Courses	Titles	Credits
MSL 101	Leadership & Personal Development (F)	1
MSL 102	Introduction to Tactical Leadership (S)	1
MSL 201	Innovative Team Leadership (F)	2
MSL 202	Foundations of Tactical Leadership (S)	2

Advanced Course

Courses	Titles	Credits
MSL 301	Adaptive Tactical Leadership (F)	3
MSL 302	Leadership in Changing Environments (S)	3
MSL 303	Advanced Camp (SS)	6
MSL 401	Developing Adaptive Leaders (F)	3
MSL 402	Leadership in a Complex World (S)	3
MSL 485	Special Studies in Leadership (F,S)	3

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The Military Science Minor

A minor in Military Science is available for students participating in the Army ROTC Program. Participants must achieve a minimum of 21 credit hours by graduation, which includes credit for all Advanced Course classes (to include graduation from Advanced Camp) and the Professional Military Education (PME) requirement. More information about the minor is available through the Department of Military Science.

Professional Military Education (PME) Requirements

To receive a commission as a Second Lieutenant in the U.S. Army and to graduate with a Minor in Military Science students must also complete a course in the following area to receive credit for their Professional Military Education (PME) requirements. Further information on this requirement will be provided to the students during contracting into the Army ROTC program.

- Military History

Scholarship Information

The Army ROTC Scholarship Program provides financial assistance for the education and training of highly motivated men and women who desire to pursue careers as commissioned officers in the U.S. Army after graduation with a bachelor's degree. Four, three- and two-year scholarships are available to qualified candidates. The scholarship pays for school tuition, books, certain fees, and provides the student with a monthly, tax-free stipend of between $250 and $400 per month for up to 10 months per year. (depending on academic status). For more information pertaining to scholarships and enrollment eligibility please contact the Department of Military Science at 549-2141.

MUSIC DEPARTMENT

Department Chair: Hudson
Faculty: Barto, B. Beck, Cantu, Chi, Crafts, Creager, Duncan, Eastin, Eberhardt, Hollingsworth, Ihm, Markowski, Neihof, Peters, Rann, Reid, Soper, A. Turner, J. Turner, Veronika String Quartet (Afanassieva, Dobrotvorskaia, Garibova, Guideri)

The Music Department of Colorado State University-Pueblo seeks to promote excellence in musicianship and to equip students for a career in music. The major in music leads to a degree of Bachelor of Arts (BA).

Mission, Goals and Objectives

The **mission** of the Department of Music at Colorado State University-Pueblo is to prepare undergraduate students to function professionally in their chosen field of music within the larger context of a liberal education, to provide artistic enrichment for the community, and to serve as an artistic resource.

The **goals** of the Department of Music are:

- To prepare students to function professionally in their field of music,
- To provide appropriate musical experiences for students in the liberal arts program,
- To prepare students to pursue advanced study in their respective areas,
- To encourage in all students the development of musical sensitivity and an understanding of the aesthetic process,
- To provide for the University and community the enrichment afforded by a variety of musical experiences.

The **objectives** of the Department of Music used to accomplish the goals outlined above include:

- To offer courses and related experiences of an appropriate nature and quality and of sufficient breadth to allow the student adequate opportunity to acquire the necessary knowledge and skills.
- To offer and encourage student participation in a variety of ensembles and other instructional opportunities, allowing for varying musical tastes, experiences, and abilities,
- To sufficiently challenge each music student to progress beyond the minimum requirements of a degree program, and to provide opportunities for growth beyond classroom instruction,
- To present music in a manner that promotes it as an art form,
- To offer and promote quality performance and instruction, and to serve as an artistic resource.

Requirements

GPA

Students are required to complete all major and minor courses with a grade of C or better and to maintain a cumulative GPA of 2.5 or better.

Minor Area

The ability to think across disciplines contributes significantly to the educational experience. Music majors must successfully complete an approved minor or a minimum of 18 hours in subject areas other than music with a cumulative GPA of 2.5 or better. For the music education degree, education is the appropriate minor.

Performance Skills

The attainment of an appropriate level of performance skills is required in order to function successfully as a musician. The minimum *Performance Standards*, which appear on the music department's web site and in the music department student handbook, provide representative examples of music literature and repertoire and must be successfully completed for each of the musical areas of performance concentration.

Admission to Upper Division

All music majors must qualify for admission to Upper Division (junior-level) study leading to the specific degree by successfully completing the Junior Qualifying Exam at the end of their sophomore year. In addition, all music majors will be required to complete successfully the piano proficiency requirement. See the *Department of Music Student Handbook* for specific information regarding these evaluations.

Standards

Knowledge of specific subject areas, as 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.

Degree in Music

The Bachelor of Arts in Music provides a broad base for a number of careers in music such as private studio teachers, and is intended as preparation for advanced graduate study.

The Bachelor of Arts in Music: Music Performance emphasis is appropriate for those students who plan to perform, teach privately, or pursue further study at the graduate level.

The Bachelor of Arts in Music: Music Education emphasis is a professional degree and provides the essential training, knowledge and skills necessary for a teaching career in choral, instrumental, or general music. The degree leads to K-12 music teacher licensure.

The University also offers a Minor in Music which allows the student to further their knowledge of music as an art while enjoying participation in music performance.

Specific Requirements for the Bachelor of Arts in Music

General Education.....35

NOTE: must include MUS 118, Music Appreciation. In addition, all students must participate in appropriate Primary and Secondary ensembles as assigned each semester, excepting when Student Teaching.

Bachelor of Arts in Music Core Courses

MUS	Courses	Titles	Credits
MUS	150	Music Theory I	3
MUS	151	Aural Skills I	1
MUS	210	Music Theory II	3
MUS	211	Aural Skills II	1
MUS	250	Music Theory III	3
MUS	251	Aural Skills III	1
MUS	310	Music Theory IV	3
MUS	311	Aural Skills IV	1
MUS	305	Music History I	
		OR	
MUS	355	Music History II	3
MUS	x01	Music Performance Symposium (6 semesters, grading is S/U)	0
MUS	xxx*	Primary Ensemble (6 semesters, 2 upper division)	6
MUS	xxx**	Secondary Ensemble (2 semesters, 1 upper division) (Note: Music Ed emphasis exempt from this credit requirement)	2
MUS	xxx	Major Applied Lesson (6 semesters, 2 upper division)	12
MUS	127	Functional Piano I: Beginning (may be repeated)	1
MUS	227	Functional Piano II: Int./Proficiency (may be repeated)	1
MUS	103	Music & Computer Technology I	1

MUS	303	Music & Computer Technology II	1
MUS	357	Orchestration and Arranging	3
MUS	358	Basic Conducting	2
		TOTAL	48 (Music Ed 46)

Note: Piano student complete either of the following in lieu of Functional Piano courses:

MUS	346	Piano Literature	
		OR	
MUS	347	Piano Pedagogy	2
		TOTAL	2

Free Electives 35-37

Degree Total 120

***Primary** ensembles: (All courses MUS)

	Fr	Soph	Jr	Sr
Concert Choir	102	202	302	402
Wind Ensemble	112	212	312	412
Guitar Ensemble, Classical	132	232	332	432
Guitar Ensemble, Jazz	136	236	336	436
Piano Ensemble	142	242	342	442
Orchestra	144	244	344	444

****Secondary** Ensembles: (All courses MUS)

	Fr	Soph	Jr	Sr
Brass Ensemble	114	214	314	414
Chamber Ensemble	121	221	321	421
Percussion Ensemble	124	224	324	424
Woodwind Ensemble	134	234	334	434

NOTE: Ensembles are determined by the student's declared performance area. See advisor if further information is required.

Specific Requirements Bachelor of Arts in Music: Music Performance Emphasis

Music Core 48

General Education 35

NOTE: must also complete two semesters of a Foreign Language.

Music Performance Emphasis Requirements

MUS Courses		Titles	Credits
MUS	305	Music History I	
		OR	
MUS	355	Music History II (other than core)	3
MUS	350	Composition and Analysis	3
MUS	x01	Music Performance Symposium (2 semesters, grading is S/U)	0
MUS	380-399	Junior Recital	2
MUS	470-489	Senior Recital	2
MUS	xxx	Primary Ensemble (2 semester, upper division)	2
MUS	359	Advanced Conducting	2
		TOTAL	14

Note: Vocal students must also complete the following:

MUS	323	Diction for Singers	3
		TOTAL	3

Note: Piano students must also complete the following:

MUS	346	Piano Pedagogy (substitute for 2 credits of Functional Piano, MUS 127 and 227)	2
MUS	347	Piano Literature	2
		TOTAL	4

Music Electives 20-23

Degree Total 120

Specific Requirements Bachelor of Arts in Music: Music Education Emphasis

Music Core ..... (Music Ed) 46

General Education 35

NOTE: Social Science requirements must include PSYCH 151 (Human Development)

Music Education Emphasis Requirements

MUS Courses		Titles	Credits
MUS	305	Music History I	
		OR	
MUS	355	Music History II (other than core)	3

MUS	x01	Music Performance Symposium (1 semester, grading is S/U)	0
MUS	470-489	Senior Recital	2
MUS	359	Advanced Conducting	2
MUS	113	Vocal Techniques and Diction	1
MUS	223	Percussion Techniques	1
MUS	233	Woodwind Techniques	1
MUS	243	String Techniques	1
MUS	253	Brass Techniques	1
MUS	340	Elementary Music Methods	3
MUS	440	Secondary Music Methods	3
		TOTAL	18

Education Requirements

Courses		Titles	Credits
ED	202	Foundations of Education	3
ED	301	Frameworks of Teaching	3
RDG	435	Content Area Literacy	4
ED	412	Teaching Diverse Learners	3
ED	485	Capstone Seminar	2
ED	489	Student Teaching K-12	12
		TOTAL	27

Degree Total 126

There are also licensure requirements in educational technology and educational psychology; consult the Teacher Education Program for details.

Specific Requirements for the Music Minor

MUS Courses		Titles	Credits
MUS	118	Music Appreciation	3
MUS	127	Functional Piano I: Beginning	1
MUS	xxx	Ensemble (4 semesters)	4
MUS	x01	Music Performance Symposium (4 semesters)	0
MUS	150	Music Theory I	3
MUS	151	Aural Skills I	1
MUS	210	Music Theory II	3
MUS	211	Aural Skills II	1
MUS	xxx	Applied, non major (4 semesters)	4
		TOTAL	20

Additional Information

The Department of Music Student Handbook is intended as a supplement to the University Catalog and is binding in all matters relating to the Department of Music at Colorado State University-Pueblo. A copy of the handbook may be found on the University Department of Music website, and printed copies are located in the Music office (A/M 175) and in all music faculty offices.

The Colorado State University-Pueblo Department of Music is an accredited member of the National Association of Schools of Music.

NON-PROFIT ADMINISTRATION MINOR

The Minor in Non-Profit Administration is a multi-disciplinary program designed for students who wish to pursue careers in non-profit organizations in the arts, health care, social services, professional societies, non-governmental organizations, and so forth. A broad variety of electives in both the College of Humanities and Social Sciences and the Hasan School of Business allows students to gain skills that will help them in the various activities often demanded of non-profit administrators.

Specific Requirements for the Non-Profit Administration Minor

Core Courses: ..... 9 credits

Courses		Titles	Credits
MCCNM	370	Nonprofit Organizations and Communication	3
POLSC	330	Introduction to Public Administration	
		OR	
ACCTG	201	Principles of Financial Accounting	3
PSYCH	315	Industrial/Organizational Psych	
		OR	
MGMT	201	Principles of Management	
		OR	
MCCNM	240	Public Relations	3

Elective Courses: ..... 12 credits

The following courses are suggested electives. Students are encouraged to identify courses that will assist in their specific nonprofit career goals. Students are required to earn 12 credits, but can choose additional electives. The required 12 credits can fall within the same content area or across disciplines. Some courses may require prerequisites.

Courses		Titles	Credits
ART	281	Graphic Design	3
BUSAD	270	Business Communication	3
ECON	202	Microeconomics	3
ECON	330	Public Finance	3
ENG	303	Adv. Comp., Rhet. & Grammar	3
ENG	305	Technical & Scientific Report Writing	3
ENG	326	Writing for the Web	3

ENG	440	Magazine Writing	3
FIN	330	Principles of Finance	3
MCCNM	211	Desktop Publishing	3
MCCNM	216	Advertising	3
MCCNM	240	Public Relations	3
MCCNM	321	Public Relations Case Problems	3
MCCNM	422	Public Relations Writing	3
MCCNM	430	Integrated Comm. Campaigns	3
MGMT	301	Organizational Behavior	3
MGMT	318	Human Resource Management	3
MKTG	340	Principles of Marketing	3
POLSC	340	Public Policy	3
POLSC	411	Legislatures and Legislation	3
POLSC	480	Practicum in Politics and Public Service	3
SPN	130	Cultures of the Spanish-Spkg World	3
SW	350	Social Welfare Policy	3
SW	324	Social Work Intervention III	3

Internship: ..... 3 credits

Students are required to earn a 3-credit internship in a nonprofit organization to be approved by the nonprofit advisor.

PSYCHOLOGY DEPARTMENT

Department Chair: L. Madrid
Faculty: Binggeli, Frankmann, Kulkosky, Levy, Madrid, Pratarelli, Yescavage

Psychology is a field of inquiry which is called the science of behavior and answers questions about how and why organisms behave as they do. The field of psychology is enormous with many sub fields. Some areas pertain to animals, while others are focused on the behavior of humans. Still other areas focus on, abnormal behavior or complex social and emotional behavior while the cognitive area focuses on 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. These skills are useful for problem solving in many applied settings.

The bachelor's degree program in psychology at CSU-Pueblo offers a curriculum which provides the student with an overview of the major areas within psychology, along with the opportunity to select courses which fit their personal interests. Through psychology courses at CSU-Pueblo, a student can enhance their career opportunities and/or gain an academic grounding for professional and graduate training. Students who seek careers as professional psychologists should consider studies at the graduate level. Students are encouraged to take advantage of many opportunities in the psychology department including 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, and identifying valid and invalid conclusions based on empirical evidence.

- Graduates should be able to read and write complex prose, to comprehend journal articles, and to present a coherent and persuasive argument on a psychological topic.

- Graduates should have skills of information gathering and synthesis including appropriate use of library and internet materials and the ability to derive conclusions after surveying a variety of sources.

- Psychology graduates should be able to demonstrate an understanding of theoretical biases, especially as they relate to minority groups and sexist thinking.

- Students should gain practical experience in the form of relevant volunteer activities, field experience, work experience, or research assistantships.

Bachelor of Science Degree in Psychology

Students must complete all of the major degree requirements. In addition, students must complete 8 credits in the natural sciences or math beyond their general education courses. EXHP 162 and EXHP 162L cannot be used to satisfy the additional science requirement.

Bachelor of Arts Degree in Psychology

Students must complete all of the major degree requirements. In addition, students must complete the language requirement as stated in the University catalog. This requirement includes completion of the second semester of a foreign language with a grade of C or better and includes American Sign Language. FL 100 and ANTHR/ENG 106 are appropriate substitutes.

Major Requirements

A total of 42 hours in psychology is required for the major. Psychology majors should consult a faculty advisor who will assist in selecting psychology courses to complete the major.

Basic Core Requirements

PSYCH Courses		Titles	Credits
PSYCH	100	General Psychology	3
PSYCH	103	Introductory Psychology for Majors	2
PSYCH	207/L	Quantitative Research Methods I/Lab	4
PSYCH	209/L	Quantitative Research Methods II/Lab	4
PSYCH	401	History & Systems of Psychology	3

Two of the following courses 6

PSYCH	311	Theories of Personality
PSYCH	352	Social Psychology
PSYCH	353	Advanced Developmental Psych
PSYCH	362	Abnormal Psychology

One of the following courses 3

PSYCH	336	Learning and Motivation
PSYCH	337	Memory and Cognition

One of the following courses with lab 4

PSYCH	331/L	Physiological Psychology/Lab
PSYCH	334/L	Perception/Lab

One of the following courses 3

PSYCH	314	Environmental Psychology
PSYCH	315	Industrial/Organizational Psych
PSYCH	342	Educational Psychology
PSYCH	471	Clinical Psychology

TOTAL 42

PSYCH ELECTIVES:

PSYCH Courses		Titles	Credits
PSYCH	110	Improving Memory	2
PSYCH	151	Intro to Human Development	3
PSYCH	205	Intro to Sport Psychology	3
PSYCH	211	Women and Society	3
PSYCH	212	Sexism and Racism in America	3
PSYCH	220	Drugs and Behavior	3
PSYCH	222	Understanding Animal Behavior	3
PSYCH	231	Marriage and Family Relationships	3
PSYCH	241	Human Sexuality	2
PSYCH	251	Infancy, Childhood and Preadolescence	3
PSYCH	351	Psych of Exceptional Individual	3
PSYCH	381	Principles of Psychological Testing I	4
PSYCH	410	Advanced Data Analysis	3
PSYCH	420	Human Evolutionary Psych	3
PSYCH	463	Psychopathology of Childhood	3
PSYCH	464/L	Systems of Counseling and Psychotherapy/Lab	4
PSYCH	465	Behavior Modification	3
PSYCH	475	Group Process	3
PSYCH	494	Field Experience	4-12
PSYCH	495	Independent Study	1-3

All students are required to declare a minor or earn 18 credits in the Humanities and/or the Social Sciences beyond their major requirements and the general education requirements.

Prerequisites

Students should be aware that there are prerequisites to some courses. For instance, it is important to note that 2 years of high-school algebra (or equivalent) is the prerequisite for Psychology 207 & 209. Successful completion of Psychology 207 is the prerequisite for Psychology 209. Psychology 401 should not be taken until the senior year, preferably in the last semester before graduation.

Note:

A maximum of 6 credit hours of field experience and/or individual projects may be applied towards the required 42 total hours in psychology.

General Education

General Education requirements are to be taken outside of the major. Therefore, students who major in psychology may not use psychology courses for general education.

Upper Division Requirement

Psychology majors must take a minimum of 24 credits of upper-division coursework in psychology.

GPA

A minimum grade of C is required in all psychology courses counting toward the psychology major.

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 495 do not count toward the minor. A maximum of three credits of PSYCH 495 may count towards the minor if the project undertaken is research based.
- A minimum grade of C in all psychology courses counting toward the minor.

Psychology Concentration under the Liberal Studies Major

In addition to Psychology 151 and 342, which are required of all Teacher Education majors, the following courses will fulfill the requirements for the concentration in Psychology under the Liberal Studies Major.

Course		Title	Credits
PSYCH	251	Child Psychology	3

This course is required of all Liberal Studies majors who choose Psychology as a concentration area.

Select **nine** credit hours from the following list 9

Courses		Titles	Credits
PSYCH	220	Drugs and Behavior	3
PSYCH	231	Marriage and Family Relationships	3
PSYCH	311	Theories of Personality	3
PSYCH	336	Learning	3
PSYCH	337	Memory & Cognition	3
PSYCH	352	Social Psychology	3
PSYCH	353	Advanced Developmental Psychology	3
PSYCH	362	Abnormal Psychology	3
PSYCH	463	Psychopathology of Childhood	3
PSYCH	465	Behavior Modification	3

Career/Employment for Psychology Majors

Psychology is a diverse field with hundreds of career paths. Some specialties, like caring for mentally ill people, are familiar to most of us. Others, like studying how we know and remember things, are less well known.

Across the nation, psychology is the second most popular undergraduate major, even though many of those who choose psychology as a major may not be interested in psychology as a career. About 10 percent of psychology majors pursue graduate training and at CSU-Pueblo there is excellent preparation available for students wishing to apply to graduate programs in psychology.

For those students who do not wish to become professional psychologists, many jobs are available. Psychology is a valuable major for a Liberal Arts degree. Jobs are found in various sectors of society and psychology graduates are most often employed as interviewers, counselors, mental health workers, human service practitioners, personnel analysts, probation officers, and writers. Employers find that psychology graduates possess strong people skills and psychology majors also value these skills themselves

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.

SOCIAL WORK DEPARTMENT

Department Chair: Noel
Faculty: Baca, Gonzales, Kidd, Reilly-Sandoval

The profession of social work is dedicated to helping individuals, families, groups, neighborhoods and communities meet basic human needs within the context of culture and society. Fundamental to social work practice is the enhancement of social functioning from a person-in-environment perspective. Particular attention is given to populations at risk, the services that have been developed to meet their needs, and societal change to achieve a more humane and just society.

The Department of Social Work has been continuously accredited by the Council on Social work Education (CSWE) since 1982. Students who earn a BSW degree from Colorado State University-Pueblo may be

eligible for advanced standing in a social work graduate program. However, requirements for advanced standing varies with each graduate social work program.

Social Work Program Mission

The Social Work Program's mission is to prepare students for beginning generalist social work practice across client systems. The program is committed to promoting social and economic justice through excellence, creativity, and innovation. The curriculum incorporates a strong knowledge, value, and skill base. As a Hispanic Serving Institution, there is an emphasis on understanding, appreciating, and developing competent practice with the Chicano/Chicana community and other regional populations of the southwestern United States.

Social Work Program Goals

The goals of the Social Work Program are to:

- Prepare students for beginning generalist practice with individuals, families, groups, organizations, and communities;
- Prepare students for lifelong learning, communication, and critical thinking skills through an educational process which integrates a liberal arts foundation with professional social work education;
- Prepare students to understand the forms and dynamics of power, oppression, and discrimination and to develop skills to effectively advocate for social and economic justice with individuals, families, groups, organizations, and communities;
- Prepare students for professional practice based on the values and ethics of the social work profession;
- Prepare students for generalist practice with rural, immigrant, and migrant client populations;
- Prepare students for generalist practice with populations-at-risk; and
- Prepare students with knowledge, values, and skills necessary to successfully complete graduate education.

Program Objectives

Upon successful completion of the program, students will be able to:

- Apply critical thinking skills based on theoretical knowledge;
- Apply the values and ethics of the social work profession with various client systems;
- Apply generalist practice skills from a person-in-environment strengths perspective in work with diverse populations of various sizes with emphasis on Chicanos/Chicanas, First Nations and indigenous people, and rural, immigrant, and migrant populations representative of the southwestern United States;
- Understand and integrate the history of the social work profession and the social welfare system into practice;
- Apply theoretical knowledge of the biological, psychological, social, cultural, and spiritual factors that impact the development, behavior, beliefs and values of client systems of various sizes across the life span;
- Understand and analyze the impact of social policies on diverse client systems of various sizes;
- Differentially and effectively use communication skills with a variety of client populations, colleagues, and members of the community;
- Understand the forms of oppression and discrimination;
- Apply strategies to eliminate or alleviate discrimination and oppression;
- Apply knowledge and strategies to effect change in the larger society;
- Evaluate research and incorporate results into practice;
- Demonstrate an understanding and appreciation of cultural diversity;
- Apply strategies which enhance the well-being and social functioning of individuals, families, groups, communities, organizations, and the larger society;

- Apply knowledge and skills in utilizing community and agency resources to meet basic needs of client systems and/or develop needed resources;
- Apply generalist practice skills from a strengths perspective in work with populations-at-risk; and
- Demonstrate an appropriate use of professional knowledge, values, and skills to effect change with individuals, families, groups, communities, organizations, and the larger society.

Coursework leading to the Bachelor of Social Work (BSW) degree involves the development of knowledge, values, and skills inherent in the social work profession from a person-in-environment strengths perspective. Courses required for the major incorporate a broad liberal arts base to promote critical thinking and an appreciation and understanding of diversity.

Requirements for the Social Work Major

General Education Foundation Courses

General Education ..... 35 credit hours

As a base for professional intervention, social work practice requires mastery of knowledge and skills commonly taught in the liberal arts. Students planning to major in social work should select general education courses that develop proficiency in verbal and written communication, competency in problem solving, and promote critical and analytical thinking. Courses that incorporate human growth and behavior, diversity, and the interaction of individuals, groups, neighborhoods, communities and society, within the context of social, economic, political, and governmental systems, provide a substantive base for majors. Students must complete the University's general education requirements prior to enrollment in upper division social work courses.

Professional Foundation Courses ... 36 credit hours

Specified social science courses 21
Basic social work courses 15

Social Work Foundation Courses

A grade of C or above must be earned in all courses required by the major. The following specific courses are required as foundation for enrollment in upper division social work classes.

Courses		Titles	Credits
BIOL	100	Principles of Biology	3
CS	101	Intro to Chicano Studies	3
PSYCH	100	General Psychology	3
SOC	101	Intro to Sociology	3
A course covering women's studies			3
A course in basic statistics or SW 210			3
A course in economics or political science			3
		TOTAL	21

Courses in the social work curriculum are provided in the areas of human behavior and the social environment, social welfare policy and services, social research, social work practice and field practicum. Learning takes place in the classroom and in approved agency settings under supervision. Early in the curriculum students learn about social agencies and the roles of social service providers through a volunteer placement for 45 clock hours in an approved agency required for a social work class, Introduction to Social Work Practice (SW 222). Courses in the major must be taken in sequence because knowledge in higher level courses is built on the mastery of information in previous courses.

SW Courses		Titles	Credits
SW	100	Intro 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 US	3
SW	222	Intro to Social Work Practice	3
		TOTAL	15

Admission into the Social Work Program

The social work major is a professional program and as such requires two additional admission processes following admission into the University: the first is admission into the social work program and the second is admission into the field practicum. **Social work majors must be accepted into the program prior to enrolling in 300 and 400 level social work courses.**

Application forms for admission into the program may be obtained from the department secretaries. Completed application forms are to be submitted to the department secretaries no later than October 31st for the upcoming spring semester and no later than March 15th for the upcoming fall semester. Exceptions must be approved by the Social Work Department Chair and the request must be in writing. Forms will then be

distributed by the Social Work Department Chair to faculty for review and a decision will be made regarding admission into the program. The Department Chair will notify each student in writing of his/her status (admission into the program, conditional admission into the program or denial of admission into the program).

Reasons for conditional admission into the program will be identified in the letter, as well as corrective actions that need to be taken. When the requirements for admission into the program have been satisfied, the student's status will be revised from conditional acceptance to admission into the program. If for some reason a student is not admitted to the program, the reasons for this decision will be identified in the letter to the student, along with necessary corrective actions. Reapplication may be made once corrective action has been taken.

Social Work Professional Practice Courses

Students must earn a grade of C or above in all social work professional practice courses. The following upper division social work courses are mandatory for completion of the BSW degree and require approval for acceptance into the major prior to enrollment.

SW Courses		Titles	Credits
SW	310	Social Work Theory	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	350	Social Welfare Policy	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
SW	492	Research	3
		TOTAL	37

Admission into the Social Work Field Practicum

The Field Practicum

Social work majors also are required to apply for admission into the field practicum. An orientation meeting is scheduled by the Field Coordinator each November for all students planning to enroll in the field practicum during the following summer session or fall semester. Application forms for admission into the practicum are distributed at this meeting and information on the admission process and placement is provided. Students unable to attend are required to meet with the Field Coordinator to obtain the forms and receive pertinent information to proceed with the practicum placement process. Applications for field placement are accepted only once a year with exceptions approved by the Field Coordinator.

Completed applications must be returned to the Field Coordinator for review and approval no later than the third week of January. Upon receipt, the application will be reviewed and the student will be notified of acceptance into the field practicum by the Field Coordinator. Late submission of the application may delay both placement into the practicum and graduation since most field practicum agencies require background checks and/or drug and alcohol testing. **Students need to be aware that a criminal history may affect eligibility for placement based on agency policy, not University policy or the Department of Social Work polices.**

The practicum is offered through concurrent and block placements and requires simultaneous enrollment in the field seminar. Field Seminar (SW 481) and Field Placement I (SW 488) are offered only during the fall semester. Field Seminar II (SW 482) and Field Placement II (SW 489) are offered only during the spring semester. To be eligible for the concurrent practicum, students must have completed all 100 and 200 level courses.

All courses required for the major and degree must be completed to be eligible to enroll in the block placement, which is offered only during the summer session. Block placements begin on the Monday after graduation and continue until the week before classes resume for the fall semester. Students are enrolled in Field Placement I (SW 488) and Field Seminar I (SW 481) during the first half of the summer semester and Field Seminar II (SW 482) and Field Placement II (SW 489) during the second half of the summer term.

The Field Coordinator is required to make a reasonable effort to assist a student in securing a placement. The social work student, however, not the University, is ultimately responsible for being eligible and retaining a placement under the direction of the Field Coordinator. Students unable to obtain acceptance into an approved placement after three attempts, or successfully complete a practicum, will not be awarded the BSW degree and are advised to change to a major in which they can meet degree requirements.

Students are required to complete a minimum of 448 clock hours of professionally supervised field work in an approved community social service agency. **No academic credit is awarded for life experiences in this program.**

RETENTION IN THE SOCIAL WORK MAJOR

In accordance with professional standards, students may be denied acceptance or withdrawn from the major or field placement for either academic or behavioral reasons.

Academic Requirements

Students must attain specific academic standards for admission into the major, continuation in the program, and field practicum for graduation. By University policy, students are required to maintain a minimum cumulative grade point average of 2.0 for graduation. In the social work major, a minimum GPA of 2.5 is required (professional foundation and professional practice courses). All courses designated with a SW prefix and the non-social work foundation courses must be completed with grades no lower than a 2.0.

Behavioral Requirements

Behaviors which may result in non-acceptance into the major, field practicum, or withdrawal from the social work major may include, but are not limited to, the following:

1. Serious or repeated violation of the *NASW Code of Ethics and Standards of Practice;*
2. Violation of CSU-Pueblo's academic dishonesty policy or Student Code of Conduct;
3. Unprofessional social work conduct;
4. Demonstrated unwillingness or inability to use supervision;
5. Personal problems that seriously and consistently interfere with the conscious and professional use of self in a helping relationship;
6. Inability to accept appropriate evaluation from superiors or to modify one's professional behaviors as requested;
7. Inappropriate or disruptive behavior toward colleagues, faculty, staff or peers; and/or
8. Consistent failure to demonstrate interpersonal skills necessary to form effective professional relationships.

Inappropriate behaviors will be discussed with the student and corrective actions identified. Also, students have the opportunity to appeal decisions through the due process procedures available through the University.

Electives

A minimum of 120 semester credit hours are required for the BSW degree. At least 40 hours must be taken in upper division (300-400 level) courses. Students may use social work elective courses or courses from other departments to achieve the total credit hours required. The following elective courses are offered in social work:

SW	230	Chicano: Social & Psychological Study 3
SW	290	Special Projects 1-5
SW	325	Health in the Chicano Community 3
SW	326	Social Work Practice with Older Adults 3
SW	327	Practice with Abused and Neglected Children 3
SW	370	Non-Profit Organizations & Communication 3
SW	490	Special Projects 1-5
SW	491	Special Topics 3
SW	495	Independent Study 3

SOCIOLOGY/ANTHROPOLOGY/ SOCIAL SCIENCE DEPARTMENT

(Including Criminology)

Department Chair: W. Wright

Faculty: Calhoun-Stuber, Forsyth, Gomme, Green, McGettigan, Wolf

The programs in sociology, anthropology and social science are intended to increase the student's knowledge of social organization and social relationships, knowledge that can be applied to many career objectives in government and business.

SOCIOLOGY

Sociology is the study of human social behavior and is concerned with conditions such as crime and delinquency, family problems, social inequality, and organizations in contemporary industrial society. Sociologists are interested not only in understanding social issues and institutions, but also in resolving social problems.

As an applied program, the major prepares students to work in a wide variety of occupations, including education, government, business, industry and private human service agencies. They are employed in such areas as health care, youth services, drug rehabilitation, law enforcement, corrections, probation, and counseling. Students may receive a general sociology degree, or they may specialize within the criminology emphasis area and receive a sociology/criminology degree.

The major in sociology leads to the Bachelor of Arts (BA) and the Bachelor of Science (BS). The BS is designed for those pursuing an applied, career-oriented program, while the BA requires a foreign language. Both degrees prepare students for graduate studies and applied careers.

Sociology Program Goals

- Graduates will be able to compare and contrast the major theoretical perspectives that inform modern sociological analysis.
- Graduates will be able to apply a range of research methods in conjunction with sociological theory in order to explain and analyze complex social relations and organizations.
- Graduates will be able to apply social analysis to the substantive social area of their emphasis: criminology or general sociology, and will be able to present findings in a clear, understandable and concise manner.
- Graduates will be able to engage in critical thinking about the relationship between social and personal experiences.
- Minors will have an understanding of the significant theories, issues and methodologies of the discipline.
- Minors will have an understanding of the impact of social processes and institution on personal experiences.

Expected Student Outcomes

General Requirements

- Successful completion of the sociology core;
- Successful completion of the general or the criminology emphasis areas;
- No grade below a C in sociology courses is acceptable for the major or the minor; and
- Completion of at least 36 credit hours in approved sociology courses.

Specific Requirements for the Sociology Major

CORE

SOC Courses		Titles	Credits
SOC	101	Introduction to Sociology	3
SOC	301	Sociological Methods	3
SOC	310	Social & Cultural Theory	3
		TOTAL	9

SOC/ANTH 310

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 advisor. At least 12 hours must be upper-division courses (300- 400 level).

Criminology Emphasis

Students will complete the three (above) core sociology courses plus four (below) criminology core courses. Further, they will complete 15 hours (five courses) of criminology electives.

Criminology electives are indicated by * in the list of all sociology courses below:

Criminology Core Courses: (12 hours)

SOC Courses		Titles	Credits
SOC	203	Criminal Justice System	3
SOC	303	Crime and Deviance	3
SOC	306	Delinquency & Juvenile Justice	3
SOC	420	Explaining Crime	3

Sociology Courses (*indicates criminology elective)

SOC Courses		Titles
SOC	101	Introduction to Sociology
SOC	105	Understanding Human Diversity
SOC	155	Minority and Ethnic Relations*
SOC	201	Social Problems*
SOC	203	Criminal Justice System
SOC	206	Gender & Society
SOC	231	Marriage & Family Relations
SOC	250	The Sacred in Culture
SOC	302	Collective Behavior and Social Movements

SOC	303	Crime and Deviance
SOC	305	Crime and Women*
SOC	306	Delinquency & Juvenile Justice
SOC	308	Popular Culture*
SOC	320	Modern Social Perspectives*
SOC	352	Social Psychology
SOC	353	Penology*
SOC	354	Urban Sociology*
SOC	355	Political Sociology*
SOC	356	Social Stratification*
SOC	358	Film & Society*
SOC	359	Community Corrections*
SOC	401	Health, Culture, & Society
SOC	402	Aging, Culture, & Society
SOC	403	Human Sexuality and Social Behavior
SOC	404	Poverty*
SOC	405	Law and Society*
SOC	406	Sociology of Small Groups
SOC	407	Family Violence*
SOC	408	Science, Technology, & the Future
SOC	409	Victimology*
SOC	410	Structural & Elite Crime*
SOC	411	Police and Society*
SOC	412	Occupations & Professions
SOC	413	Patterns of Homicide*
SOC	414	Serial Murder *
SOC	415	Forensic Criminology*
SOC	416	Crime & the Mind*
SOC	417	Forensics & Homicide Investigations*
SOC	418	Crime, Drugs and Social Policy*
SOC	419	Vice Crime*
SOC	420	Explaining Crime*
SOC	421	Homicide, Courts & Corrections*
SOC	422	Terrorism and Mass Murder*
SOC	428	Women and Work
SOC	430	Industrial Organization*
SOC	431	Work in Modern America*
SOC	432	Organization Theory*
SOC	440	Correctional Administration*
SOC	448	Emotions in American Culture
SOC	451	Culture, Deviance, & Psychopathology*
SOC	452	Self and Society
SOC	453	Sociology of the Body
SOC	455	Hate Crimes*
SOC	491	Special Topics* (see advisor)
SOC	492	Research Methods*
SOC	494	Field Experience* (see advisor)
SOC	495	Independent Study

Specific Requirements for the Sociology Minor

Minors in sociology require a minimum of 20 semester hours, of which six hours must be upper division. SOC 101 is required. No grades below C are accepted toward the minor.

Co-Curricular Requirements

Generally there are no co-curricular requirements, although students with an emphasis in criminology are encouraged to complete an internship in a community corrections type agency or program.

Outcome Assessment Activities

- Completion of all required courses.
- The department believes that grades are one valid indicator of the quality of student work. No grade below C will, therefore, be accepted toward the major or minor.
- Student achievement will be assessed in the outcome areas on the basis of a standardized national achievement test.
- For the sociology minor, grades will provide a valid measure of student performance. The department will examine and maintain records of grades of students minoring in sociology as one means of assessment.

ANTHROPOLOGY

The anthropology minor provides students with an informed understanding of the cultural diversity evident in human societies and the concepts by which anthropologists explain cultural dynamics. The program emphasizes a holistic awareness of the relationships of all the parts of social and cultural systems. The program prepares students to understand anthropological methods and theories and to apply them to academic as well as to life experiences.

Anthropology Program Goals

- Students will be able to deal with intellectual problems and engage in critical thinking in a lucid fashion, reflecting logical inquiry and knowledge of pertinent information.
- Students will possess knowledge and experience of cultural and sub-cultural groups other than their own.
- Students will achieve an understanding of a spectrum of anthropological sub-divisions and will be knowledgeable in at least two areas.

Specific Requirements for the Anthropology Minor

The minor consists of 21 semester hours of anthropology courses; ANTHR 100 is required, and six hours must be upper division. The rest of the courses may be based upon the student's interest. No grades below C are accepted toward the minor.

Outcome Assessment Activities

- The assessment of anthropology students' progress is a continuing process from matriculation to graduation.

SOCIAL SCIENCE PROGRAM
(Offered through Continuing Education only)

The interdisciplinary major in social science (offered only through Continuing Education) 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.

Specific Requirements for the Social Science Major

General Track Credits

Social Science Core

Courses	Titles	Credits
ANTHR 100	Cultural Anthropology	3
ECON 201	Principles of Macroeconomics	3
GEOG 103	World Regional Geography	3
HIST 103	World Civilization since 1800	3
HIST 202	US History II	3
POLSC 101	American National Politics	3
SOC 101	Introduction to Sociology	3
	SUB-TOTAL	21
Social Science Electives (Upper Division)		15
	TOTAL	36

Specific Requirements for the Social Science Minor

- Completion of 21 semester hours of credit in Social Science courses: Anthropology Economics, Geography, History, Political Science, Psychology, Sociology. Six hours must be upper division.

SPEECH COMMUNICATION

The major and minor programs in Speech Communication have been discontinued at CSU-Pueblo.

Speech Communication courses are now housed in the Department of English and Foreign Languages. For information contact the Speech Communication Program Coordinator, Lisa Nelson, at 549-2623.

WOMEN'S STUDIES

A women's studies minor offers you a different perspective on things you think you know. Analysis of gender issues for men and women helps you understand your major discipline in different ways. This analysis inherently incorporates issues of race, ethnicity, class, and other variables as well.

The women's studies minor is designed to acquaint students with current scholarship on women, scholarship that crosses many disciplines. The minor is interdisciplinary and multicultural, and courses incorporate classroom and experiential learning. Students are asked to examine relevant questions and issues from a range of perspectives, enhancing their analytical and critical thinking skills in the process.

Specific Requirements for the Women's Studies Minor

Courses	Titles		Credits
WS	100	Introduction to Women's Studies	3
WS/CS	306	La Chicana OR	
WS/CS	401	Third World Feminisms	3
WS	301	Theories of Gender and Culture	3
WS	493	Senior Seminar	3
Women's Studies Electives			9

WS Electives:

Courses		Titles	Credits
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	231	Marriage, Family, and Relationships	3
WS/MCCNM	235	Women and Media	3
WS/CS	240	Chicana Writers	3
WS/SOC	305	Crime and Women	3
WS/CS	306	La Chicana	3
WS/MCCNM	330	Gender and Film	3
WS	335	Gender and Communication	3
WS/ENG	340	Women in Literature	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 & Gender in European History	3
WS/HIST/SOC	428	Women & Work	3
WS/SOC	453	The Sociology of the Body	3
WS/SOC	455	Hate Crimes	3
WS	490	Special Projects	3
WS	291/491	Special Topics (topics vary)	3

Most Women's Studies courses are cross-listed, meaning that the courses can be found in the course listings of both the Women's Studies program and one or more other departments. This is indicated above, for example, as "WS/PSYCH 212, Sexism and Racism in America," indicating that the course is listed as both a Women's Studies course and a Psychology course. The courses can be taken by enrolling in either a Women's Studies call number or in another department's call number. To encourage breadth, students are required to choose electives in different cross-listed disciplines, with no more than two of their electives being cross-listed in the same department (for example, Psychology). Grades below a C- will not be accepted in classes counting toward the minor. For advising, students should contact any Women's Studies instructor, or the Women's Studies Coordinator, or any member of the Women's Studies Coordinating Committee, by calling 549-2143.

COLLEGE OF SCIENCE AND MATHEMATICS

Dr. Kristina Proctor, Dean

Academic Department	Majors	Minors
Biology	Biology (BS)	• General Biology • Professional Biology
	Applied Natural Science (MS) • Biology (emphasis) • Biochemistry (emphasis)	
Chemistry	Chemistry (BS)	• Chemistry • Forensic Science
	Applied Natural Science (MS) • Biochemistry (emphasis) • Chemistry (emphasis)	
Mathematics/ Physics	Mathematics (BA, BS)	• Mathematics
	Physics (BS)	• Physics • Physical Science

Mission

The College of Science and Mathematics delivers high quality BS and MS degree programs to prepare graduates for success in professional and graduate programs, and careers in the biological and physical sciences, and mathematics. Programs in the CSM provide a modern core curriculum in biology, chemistry, physics and mathematics with specialization delivered through emphasis areas. The CSM also supports a strong and modern general education program, as well as core curricula in science and mathematics to prepare students in the health sciences, engineering, technology, and teacher education. The CSM engages in the discovery of new information and the application of new knowledge, and provides advanced learning opportunities for students via faculty mentored research projects and internships.

The College offers BS degree programs in biology, chemistry, mathematics, and physics, and a BA in mathematics. The BS in chemistry is certified by the American Chemical Society (ACS). The College also offers a master of science in applied natural sciences (MSANS) with emphasis areas in biochemistry, biology, and chemistry that can be obtained separately or along with the bachelors' degree in a combined five-year, 3+2 program.

Departments of biology, chemistry, and mathematics/ physics provide versatile major programs with select emphasis areas and minors characterized by appropriate solid fundamental science and mathematics curriculum, coupled with specialized and often interdisciplinary courses. Emphasis areas within major programs and minors, provide preparation for future careers in areas as diverse as medicine, pharmacy, teaching (certification for elementary and secondary), forensic science, environmental health and technology, computational mathematics, biophysics, bioinformatics, and many others.

In addition to offering a modern and career-oriented curriculum, academic programs provide opportunities for faculty-directed undergraduate and master-level research, and internship with local companies, government laboratories and agencies. These experiences are critical to applied student learning and significantly enhance the success of graduates in gaining employment and acceptance into graduate and professional programs at the regional, state and national levels.

Academic programs in the College are housed in three newly renovated buildings, totaling over 149,000 gross square feet and $18 million in improvements including a technology enhanced infrastructure to deliver state-of-the-art instruction in both lecture and laboratory environments. Programs incorporate use of an impressive collection of advanced instrumentation and equipment in the curriculum, providing graduates advanced skills and a competitive edge within respective professions in our modern and technologically advanced society.

MASTERS DEGREE IN APPLIED NATURAL SCIENCE 3+2 PLAN (BS/MS)

A unique and distinct feature in the MSANS program is the 3+2 plan. The 3+2 plan gives qualified advanced-level undergraduate students the opportunity to simultaneously pursue both the baccalaureate (BS) and master of science (MS) degrees. With this plan students are moved quickly 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 the requirements for both the BS and MS degrees by the end of their fifth year in college. Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. They must apply and be admitted into the MSANS program by the Spring semester of their junior year (preferred) or the start of 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, or chemistry - see below).

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

1. A completed MSANS application form;
2. A CSU-Pueblo transcript;
3. Two letters of recommendation from CSU-Pueblo 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 in the 3+2 MSANS program plan to remain in the program).

Before being admitted to the 3+2 plan, students are expected to have completed the following course work depending on the respective emphasis areas in which they have interest.

Biology Emphasis:

Courses		Titles
BIOL	301/L	General Microbiology + Lab
BIOL	350	Mendelian and Population Genetics
BIOL	351	Molecular Biology and Genetics
CHEM	302/L	Organic Chemistry II + Lab
PHYS	202/L	Principles of Physics II + Lab
MATH	221	Applied Calculus
		OR
MATH	156	Statistics

Biochemistry or Chemistry Emphasis:

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/	Advanced Inorganic Chemistry
PHYS	221/L	General Physics I + Lab
PHYS	222/L	General Physics II + Lab
MATH	224	Calculus & Analytical Geometry II

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 and the MSANS Program Director. Like students in the regular MSANS program plan, students admitted under the 3+2 plan may chose either the thesis or non-thesis (internship) program option.

BIOLOGY DEPARTMENT

Department Chair: McLean
Faculty: D. Caprioglio, H. Caprioglio, Diawara, Gabaldón, Herrmann, Martínez, Seilheimer, Smith, Vanden Heuvel

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. Carefully supervised career planning is a fundamental strength of the program.

The student majoring in biology may plan to enter the workplace upon graduation or continue study in graduate or professional school. Biomedical Sciences emphasis encompasses prep for pre-professional programs including: 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, pre-professional study involves a combination of majors or a major and minor. For example, many pre-medical students choose a double major in biology and chemistry.

Each of the pre-professional programs has an advisor who can provide detailed and current information about the undergraduate work, which the student should pursue to provide the foundation necessary for later entry into a professional school. The student should contact the specialized advisor as early as possible. A list of advisors is available in the departmental office (LS 210).

Biology majors also may seek teacher certification at the secondary level. Each student should obtain a written description of specific degree requirements from the appropriate education and biology advisors. 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 offers several emphasis areas:

- Basic Biology
- Biomedical Science
  - Pre-Chiropractic
  - Pre-Dental
  - Pre-Medical
  - Pre-Occupational Therapy
  - Pre-Optometric
  - Pre-Pharmacy
  - Pre-Physical Therapy
  - Pre-Physician Assistant
  - Pre-Podiatric Medicine
  - Pre-Veterinary Medicine
- Environmental Biosciences
  - Environmental Health
  - Environmental Technology
  - Pre-Ecology
  - Pre-Forestry/Wildlife
- Cellular and Molecular Biosciences
  - Bioinformatics
  - Cellular
  - Forensics
  - Medical Technology
- Biology/Chemistry Double Major
- Biology Secondary Certification
- Pre-Nutrition/Dietetics
  (Cooperative program with CSU-Fort Collins)

Department Goals

- To prepare students to become productive, accountable and responsible employees upon entering the work force;
- To prepare students to enter and succeed in graduate or professional schools;
- To develop in students a broad-based theoretical foundation supplemented by laboratory and field experience that allow individual observations, interpretations and applications; and
- To allow those students seeking a minor in biology to supplement and strengthen the major field of study.

Expected Student Outcomes

General Requirements

- Students majoring in biology must receive a grade of C or better (2.000) in all core biology courses.
- 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 2.600 in the major area is required for admission to the teacher education program.
- Students majoring in biology must demonstrate computer literacy. This can be met by CIS 100, CIS 103 and CIS 104 courses.
- Graduates are required to demonstrate intellectual skills and knowledge in math and supporting sciences.
- Graduates are encouraged to complete a minor outside the biology department.
- Biology majors are expected to demonstrate a knowledge of basic laboratory tools used in biology for observation and analysis, phylogenetic relationships, relationships between form and function, and population/ecological dynamics.

Biology graduates are expected to:

1) Read critically, think reflectively, and review historical and current literature in the biological sciences;
2) Apply basic knowledge of the related fields of chemistry, mathematics and physics to problem-solving in biology;
3) Formulate logical hypotheses;
4) Design and carry out well-designed, well-controlled tests of scientific hypotheses;
5) Have a knowledge of basic biology terminology;
6) Have a broad-based background in molecular, cellular, organismic and ecological biology; and
7) Gather information and present it accurately in oral and written reports.

Core Requirements for the Biology Major

BIOL Courses		Titles	Credits
BIOL	171	Career Planning I	1
BIOL	191/L	College Biology I/Botany/Lab	5
BIOL	192/L	College Biology II/Zoology/Lab	5
BIOL	212/L	Intro to Cellular Biology/Lab	3
BIOL	301/L	General Microbiology/Lab	5
BIOL	350	Mendelian & Population Genetics	2
BIOL	351	Molecular Biology and Genetics	2
BIOL	352	Evolutionary Biology and Ecology	3
BIOL	412/L	Cellular Biology/Lab	4
		OR	
BIOL	413/L	Plant Physiology/Lab	4
		OR	
BIOL	414/L	Vertebrate Physiology/Lab	4
BIOL	493	Seminar	1
		TOTAL	31

- ***Basic Biology Emphasis***

Required Biology Core Courses 31
Advisor-Approved Upper Division Biology Electives 14

TOTAL 45

Required Support Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
CHEM	301/L	Organic Chemistry I/Lab I	5
CHEM	302/L	Organic Chemistry II/Lab II	5
MATH	156	Introduction to Statistics	3
MATH	221	Applied Calculus	4
PHYS	201/L	Principles of Physics I/Lab I	4
PHYS	202/L	Principles of Physics II/Lab II	4
SPCOM	103	Speaking and Listening (H)	3
		TOTAL	38

Institutional and General Education 21
General Electives 16

Total credit hours 120

- ***Biomedical Sciences Emphasis***

Includes Pre-professional programs: Chiropractic, Dental, Medical, Occupational Therapy, Optometric, Pharmacy, Physical Therapy, Physician Assistant, Podiatric Medicine, and Veterinary Medicine.

See Basic Biology Emphasis above and consult with academic advisor for other requirements. Electives vary with professional area.

- ***Environmental Biosciences Emphasis***

Includes Pre-Ecology, Pre-Forestry and Wildlife, Environmental Health and Environmental Technology.

Basic Biology Emphasis above with these required electives:

BIOL Courses		Titles	Credits
BIOL	443/L	Limnology/Lab	4
BIOL	453/L	Ecology/Lab	4

Consult with academic advisor for other requirements, which vary with emphasis.

- ***Cellular and Molecular Biosciences Emphasis***

Includes Basic Cell & Molecular, Bioinformatics, Forensics, and Medical Technology. Consult with academic advisor for specific requirements.

Basic Cellular and Molecular Biosciences

Basic Biology Emphasis with the following required courses:

Courses		Titles	Credits
Biology required core with BIOL 412/L			31
BIOL	351L	Adv. Genetics & Molecular Biology Lab	2
CHEM	311	Survey of Biochemistry	
		OR	
CHEM	411	Biochemistry I	3
Advisor approved Upper Division Biology Electives			9
		TOTAL	45

Molecular Biology and Bioinformatics

Courses		Titles	Credits
Biology required core with BIOL 412/L			31
BIOL	351L	Adv. Genetics & Molecular Biology Lab	2
CHEM	411	Biochemistry I	3
BIOL	450	Survey of Genomics and Bioinformatics	3
Advisor approved Upper Division Biology Electives			4
		TOTAL	43

Required Support Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab	5
CHEM	122/L	General Chemistry II/Lab	5
CHEM	301/L	Organic Chemistry I/Lab	5
CHEM	302/L	Organic Chemistry II/Lab	5
CHEM	412/L	Biochemistry II/Lab	5
CIS	171	Intro to Java Programming	4
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
MATH	256	Probability for Engineers & Scientists	3
MATH	356	Statistics for Engineers & Scientists	3
PHYS	201/L	Principles of Physics I/Lab AND	
PHYS	202/L	Principles of Physics II/Lab	8
		OR	
PHYS	221/L	General Physics I/Lab AND	
PHYS	222/L	General Physics II/Lab	10
SPCOM	103	Speaking and Listening (H)	3
		TOTAL	56-58

Institutional and General Education 21

Total credit hours 120-122

Forensics

Courses		Titles	Credits
Biology required core with BIOL 412/L			31
BIOL	351L	Adv. Genetics & Molecular Biology Lab	2
CHEM	411	Biochemistry I	3
Advisor approved Upper Division Biology Electives			9
		TOTAL	45

Required Support Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab	5
CHEM	122/L	General Chemistry II/Lab	5
CHEM	301/L	Organic Chemistry I/Lab	5
CHEM	302/L	Organic Chemistry II/Lab	5
CHEM	160/L	Intro to Forensic Science/Lab	4
CHEM	260/L	Forensic Chemistry I/Lab	4
CHEM	460/L	Forensic Chemistry II/Lab	4
MATH	156	Introduction to Statistics	3
MATH	221	Applied Calculus: An Intuitive Approach	4
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	202/L	Principles of Physics II/Lab	4
SPCOM	103	Speaking and Listening (H)	3
		TOTAL	50

Institutional and General Education 21
General Electives 4

Total credit hours 120

- ***Biology/Chemistry Double Major Emphasis***

Required Biology core with BIOL 493 or CHEM 493, Seminar 31
Advisor Approved Biology electives 9

TOTAL 40

Required Support Courses

Courses		Titles	Credits
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
PHYS	201/L	Principles of Physics I/Lab AND	
PHYS	202L	Principles of Physics II/Lab	8
		OR	
PHYS	221/L	General Physics I/Lab AND	
PHYS	222/L	General Physics II/Lab	10
SPCOM	103	Speaking and Listening (H)	3
		TOTAL	21-23

Chemistry Core

Courses		Titles	Credits
CHEM	121/L	General Chemistry/Lab I	5
CHEM	122/L	General Chemistry/Lab II	5
CHEM	221/L	Inorganic Chemistry/Lab	3
CHEM	301/L	Organic Chemistry/Lab I	5
CHEM	302/L	Organic Chemistry/Lab II	5
CHEM	317/L	Quantitative Analysis/Lab	5
CHEM	321	Physical Chemistry I	3
CHEM	322	Physical Chemistry II	3
CHEM	419/L	Instrumental Analysis/Lab	5
		TOTAL	39

Institutional and General Education 21

Total credit hours 121-123

- ***Biology Secondary Certification Emphasis***

Courses		Titles	Credits
BIOL	191/L	College Biology I/Botany/Lab	5
BIOL	192/L	College Biology II/Zoology/Lab	5
BIOL	212L	Intro to Cell Biology/Lab	3
BIOL	350	Mendelian & Population Genetics	2
BIOL	351	Molecular Biology and Genetics	2
BIOL	206/L	Intro to Microbiology/Lab	
		OR	
BIOL	301/L	General Microbiology/Lab	4-5
BIOL	223/L	Human Physiology & Anatomy I/Lab	
		OR	
BIOL	224/L	Human Physiology & Anatomy II/Lab	
		OR	
BIOL	414/L	Vertebrate Physiology/Lab	4
BIOL	352	Evolutionary Biology and Ecology	3
Biology		Upper Division Field Elective/Lab	3
BIOL	493	Seminar	1
CHEM	121/L	General Chemistry I/Lab	5
CHEM	122/L	General Chemistry II/Lab	5
CHEM	211/L	Intro to Organic Chemistry/Lab	
		OR	
CHEM	301/L	Organic Chemistry I/Lab	4-5
GEOL	101/L	Earth Science/Lab	4
MATH	221	Applied Calculus: An Intuitive Approach	4
PHYS	201/L	Principles of Physics I/Lab	4
PHYS	202/L	Principles of Physics II/Lab	4
		TOTAL	62-64

Education Minor 37

Institutional and General Education to include the following courses: 24

PSYCH 151	Intro to Human Development
SPCOM 103	Speaking and Listening (grade of B or better required)

Total credit hours 123-125

- ***Elementary Teaching***

See Liberal Studies with Science Emphasis

- ***Pre-Nutrition/Dietetics Emphasis***

This emphasis is designed to prepare students for a dietetic internship and a professional career in medical nutrition therapy or nutrition counseling. The degree (B.S.) is awarded from CSU-Fort Collins; however the entire 4-year program is designed for completion in Pueblo. Students attend 5 semesters of CSU-Pueblo courses, then apply for admission/transfer to 3 semesters of distance learning courses from the CSU-Fort Collins Nutrition and Food Science program (dietetics concentration). Please see www.cahs.colostate.edu/fshn/programs1.asp for more information on the CSU-Fort Collins program.

Required Biology Courses

Courses		Titles	Credits
BIOL	112	Nutrition	3
BIOL	191/L	College Biology I/Botany/Lab	5
BIOL	192/L	College Biology II/Zoology/Lab	5
BIOL	206/L	Intro to Microbiology/Lab	4
BIOL	220	Medical Terminology	2
BIOL	223/L	Human Physiology & Anatomy I/Lab	4
BIOL	224/L	Human Physiology & Anatomy II/Lab	4
		TOTAL	27

Required Support Courses

Courses		Titles	Credits
CHEM	111/L	Principles of Chemistry/Lab	4
CHEM	211/L	Intro Organic Chemistry/Lab	4
CHEM	311	Survey of Biochemistry	3
CIS	100	Word and Windows	1
CIS	103	Power Point and Web Publishing	1
CIS	104	Excel Spreadsheets	1
ECON	201	Macroeconomics (SS)	3
ENG	101	Composition I	3
ENG	102	Composition II	3
MATH	121	College Algebra	4
MATH	156	Introduction to Statistics	3
MGMT	201	Principles of Management	3
PSYCH	100	General Psychology (SS)	3
SOC	101	Intro to Sociology (SS)	3
SPCOM	103	Speaking and Listening (H)	3
		TOTAL	42

General Education (1 each advisor approved Humanities, History, & Cross Cultural courses) 9

TOTAL CSU-Pueblo credit hours before Transfer to CSU-Fort Collins 78

Institutional and General Education

Please refer to the General Education Requirements in the *Academic Policies* section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Professional Biology Minor

Courses	Titles	Credits
BIOL 191/L	College Biology I/Botany/Lab	5
BIOL 192/L	College Biology II/Zoology/Lab	5
Approved Upper-division Electives		10
	TOTAL	20

Specific Requirements for the General Biology Minor

Approved Lower-division Electives	12
Approved Upper-division Electives	8
TOTAL	20

Experiential Opportunities

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 Colorado State University-Pueblo students against national norms.

CHEMISTRY DEPARTMENT

Department Chair: Lehmpuhl
Faculty: Bonetti, Collins, Dillon, Druelinger, Farrer, Proctor, Saul, Wilkes

The major in chemistry leads to a Bachelor of Science (BS) Degree and the chemistry curriculum is certified by the American Chemical Society.

The chemistry department strives to provide intellectual and professional training for students in the field of chemistry and in support of the American Chemical Society charter "to encourage in the broadest and most liberal manner the advancement of chemistry in all its branches; the promotion of research in chemical science and industry, the improvement of the qualifications and usefulness of chemists through high standards of education to promote scientific interests and inquiry."

Chemistry is a foundation science for many professions. Graduates with degrees in chemistry find employment in such diverse areas as biotechnology, health sciences, forensic science, agricultural and environmental fields, transportation industries, the semi-conductor industry, teaching and research.

Consequently, the chemistry department provides students with a number of diverse programs to assure each student versatility and a sound education in the fundamental areas of modern chemistry.

In addition to curricula for students who wish to pursue chemistry as a profession, programs can be designed for pre-professional areas including pre-pharmacy, pre-medicine, pre-dentistry and pre-veterinary medicine.

A core curriculum for the major exists and many emphasis areas 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 emphasis.

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 advisor, as well as the chemistry advisor, to assure that specific course requirements are completed.

Program Goals

- To prepare graduates in the discipline of chemistry to become productive members of the profession whether they go on to industry, post-graduate education or other areas.
- To prepare students in the verbal, written and quantitative skills that are prerequisite to advanced study or careers in chemistry.

- To prepare students in the theoretical principals of chemistry as well as in the laboratory approach to problem solving.

- To maintain approval of the chemistry curriculum as defined by the American Chemical Society, Committee on Professional Training.

- To provide the opportunity for a variety of educational programs through the following:

  1) Basic Chemistry
  2) ACS Certified Curriculum
  3) Biochemistry
  4) Forensic Science
  5) Chemistry/Teacher Certification
  6) Double Major
  7) Chemistry Minor
  8) Forensic Science Minor

Expected Student Outcomes

General Requirements

- Students majoring or minoring in chemistry are required to have a cumulative GPA of 2.000 or better in their chemistry courses. In addition, students majoring or minoring in chemistry must receive a grade of "C-" or better in all core chemistry courses.

- Proficiency in physics, math and computer science is essential for understanding and applying chemical principles; therefore, graduates must complete approved math and physics 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 CSU-Pueblo 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 CSU-Pueblo.

- 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. An exit interview is also required.

Chemistry graduates are expected to:

- Understand the concept of and be able to apply the scientific method to problem solution;

- Understand classifications of chemical compounds, general reaction types and quantitative aspects of stoichiometry as applied to chemical reactions;

- 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;

- Demonstrate a knowledge of basic laboratory skills, methods and equipment used in chemistry for observation and analysis of chemical systems;

- Read, think and write critically and review current literature in the chemical sciences; and

- 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 emphasis areas for the Bachelor of Science Degree:

CHEM Courses	Titles	Credits
CHEM 121/L	General Chemistry/Lab I	5
CHEM 122/L	General Chemistry /Lab II	5
CHEM 221/L	Inorganic Chemistry /Lab	3
CHEM 301/L	Organic Chemistry /Lab I	5
CHEM 302/L	Organic Chemistry /Lab II	5
CHEM 317/L	Quantitative Analysis/Lab	5
CHEM 321*	Physical Chemistry I	3
CHEM 322*	Physical Chemistry II	3
CHEM 419/L	Instrumental Analysis/Lab	5
CHEM 493	Seminar	1
	TOTAL	40

* CHEM 322 is not a continuation of CHEM 321 and can be taken before CHEM 321.

All emphasis areas 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 *Academic Policies* section of this catalog or refer to your individual department's curriculum sheet.

Requirements for the Specific Emphasis Areas

- ***Basic Chemistry Emphasis***

Courses		Titles	Credits
Required Chemistry Core			40
CHEM	323	Experimental Physical Chemistry	2
Approved Elective (CHEM or MATH 156)			3
		TOTAL	45

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geom	5
MATH	224	Calculus and Analytic Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	20

Institutional and General Education Courses	24
Approved Minor	20
Free Electives	11
TOTAL	55
Total credit hours	**120**

- ***ACS Certified Emphasis***

Courses		Titles	Credits
Required Chemistry Core			40
CHEM	323	Experimental Physical Chemistry	2
CHEM	411	Biochemistry I	3
CHEM	421	Advanced Inorganic Chemistry	3
CHEM	492	Research	1
Approved Chemistry Electives			6
		TOTAL	55

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geom I	5
MATH	224	Calculus and Analytic Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	20

Institutional and General Education	24
Free Electives	1
Approved Minor	20
TOTAL	45
Total credit hours	**120**

- ***Biochemistry Emphasis***

Courses		Titles	Credits
Required Chemistry Core			40
CHEM	411	Biochemistry I	3
CHEM	412/L	Biochemistry II/Lab II	5
Approved CHEM Elective (CHEM 492 or 495 strongly suggested)			3
		TOTAL	51

Other Required Courses

Courses		Titles	Credits
BIOL	191/L	College Biology I/Botany/Lab	5
BIOL	192/L	College Biology II/Zoology/Lab	5
BIOL	301/L	General Microbiology/Lab	5
BIOL	350	Mendelian and Population Genetics	2
BIOL	351/L	Molecular Biology and Genetics/L	4
BIOL	412/L	Cellular Biology	4
MATH	126	Calculus and Analytic Geom I	5
MATH	224	Calculus and Analytic Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
		TOTAL	45

Institutional and General Education	24
Total credit hours	**120**

- ***Double Major Emphasis***

Required Chemistry Core 40
(Including *either* major seminar course)

TOTAL 40

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus and Analytic Geometry I	5
MATH	224	Calculus and Analytic Geometry II	5
PHYS	201/L	Principles of Physics I/Lab I	4
		OR	
PHYS	221/L	General Physics I/Lab I	5
PHYS	202/L	Principles of Physics II/Lab II	4
		OR	
PHYS	222/L	General Physics II/Lab II	5

TOTAL 18-20

Institutional and General Education 24
Approved Second Major Minimum 39

TOTAL 63

Total credit hours 121-123

Secondary Teaching Certification Emphasis

Required Chemistry Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry/Lab I	5
CHEM	122/L	General Chemistry/Lab II	5
CHEM	211/L	Intro to Organic Chemistry/Lab I	4
		OR	
CHEM	301/L	Organic Chemistry/Lab I	5
CHEM	311	Survey of Biochemistry	3
CHEM	317/L	Quantitative Analysis/Lab	5
CHEM	321	Physical Chemistry I	3
CHEM	419/L	Instrumental Analysis/Lab	5
		OR	
CHEM	221/L	Inorganic Chemistry/Lab	3
CHEM	493	Seminar	1

TOTAL 29-32

Other Required Courses

Courses		Titles	Credits
BIOL	100/L	Principles of Biology /Lab	4
BIOL	121/L	Environmental Conservation	4
GEOL	101/L	Earth Science/Lab	4
MATH	126	Calculus & Anal Geom I	5
MATH	224	Calculus & Anal. Geom II	5
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PSYCH	151	Intro to Human Development	3
PSYCH	342	Educational Psychology	3
ED	202	Foundation of Education	3
ED	280	Educational Media & Technology	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learn	3
ED	444	Teaching Secondary Science	4
RDG	435	Content Area Literacy	4
ED	485	Capstone Seminar	2
ED	488	Student Teaching Secondary	
		OR	
ED	489	Student Teaching K-12	12

TOTAL 72

General Education 21

Total credit hours 122-125

- ***Forensic Science Emphasis***

Required Chemistry Core 40

Other Required Courses

Courses		Titles	Credits
MATH	126	Calculus & Analytical Geom I	5
MATH	224	Calculus & Analytical Geom II	5
PHYS	221/L	General Physics/Lab I	5
PHYS	222/L	General Physics/Lab II	5
Institutional and General Education			24

TOTAL 44

Forensic Science Emphasis Area Courses:

Courses		Titles	Credits
CHEM	160/L	Intro to Forensic Science/Lab	4
CHEM	260/L	Forensic Chemistry/Lab I	4
CHEM	460/L	Forensic Chemistry/Lab II	4
MATH	156	Intro to Statistics	3
Electives*			21

TOTAL 36

Total credit hours 120

*Approved elective courses, at least 9 credits of which must be upper division

Courses	Titles	Credits
ANTHR 416	Crime and the Mind	3
ANTHR/SOC 451	Culture/Deviance/Psychopathology	3
BIOL 191/L	College Biology I/Botany/Lab	5
BIOL 192/L	College Biology II/Zoology/Lab	5
BIOL 212/L	Intro to Cell Biology/Lab	3
BIOL 223/L	Human Physiology & Anatomy I/Lab	4
BIOL 301/L	General Microbiology/Lab	5
BIOL 351	Molecular Biology & Genetics	2
BIOL 351L	Adv. Genetics & Molecular Biol Lab	2
BIOL 440/L	Molecular Genetics/Lab	3
BIOL 481/L	Entomology/Lab	3
CHEM 411	Biochemistry I	3
CHEM 412/L	Biochemistry II/Lab	5
CHEM 492	Research OR	
CHEM 498	Internship	1-3 Var
ENG 305	Technical & Scientific Report Writing	3
MATH 356	Statistics for Engineers & Scientists	3
PSYCH 220	Drugs and Behavior	3
PSYCH 362	Abnormal Psychology	3
PSYCH 491	Forensic Psychology (taught under Special Topics)	3
SOC 415	Forensic Criminology	3

- ***Pre-Professional***

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 Emphasis* 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

Courses	Titles	Credits
CHEM 121/L	General Chemistry I/Lab I	5
CHEM 122/L	General Chemistry II/Lab II	5
Upper-division Electives		10
	TOTAL	20

Forensic Science Minor

Courses	Titles	Credits
CHEM 111/L	Principles of Chemistry/Lab OR	
CHEM 121/L*	General Chemistry I/Lab	4-5
CHEM 211/L	Intro to Organic Chemistry/Lab OR	
CHEM 301/L*	Organic Chemistry I/Lab	4-5
CHEM 160/L	Intro to Forensic Science/Lab	4
CHEM 260/L	Forensic Chemistry /Lab I	4
Electives	See elective list below	3
	TOTAL	19-21

POSSIBLE ELECTIVES

Electives chosen from the following (or as approved by the Minor Advisor):

Courses	Titles	Credits
CHEM 311	Survey of Biochemistry	3
CHEM 460/L*	Forensic Chemistry/Lab II	4
PSYCH 220	Drugs and Behavior	3
PSYCH 491*	Forensic Psychology (taught under Special Topics)	3
PSYCH 362*	Abnormal Psychology	3
ANTHR/SOC 416	Crime and the Mind	3
ANTHR/SOC 451	Culture/Deviance/Psychopathology	3
SOC 415	Forensic Criminology	3
BIOL 223/L	Human Physiology & Anatomy I/Lab	4
BIOL 301*	General Microbiology	3
BIOL 351*	Molecular Biology & Genetics	2
BIOL 351L*	Adv Genetics & Molecular Biology Lab	2
ENG 305	Technical & Scientific Report Writing	3
MATH 156	Intro to Statistics	3

*NOTE PREREQUISITES IN CATALOG

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.
4) Internships

Outcomes Assessment Methods

- Assessment of chemistry majors occurs through examination of GPA in required courses. Majors are required to maintain a 2.000 GPA in major and minor courses as well as in other required courses.
- Students are required to complete American Chemical Society national standard exams in general chemistry, organic chemistry, analytical chemistry and physical chemistry during the course of the chemistry degree curriculum. Scores are compared to national averages to determine if students exhibit a comprehensive knowledge of the fundamental theories and concepts necessary in the chemical sciences disciplinary areas.
- Students are required to take an exit examination during the senior year. The ETS Major Field Examination, covers the undergraduate chemistry curriculum. Scores are compared to national averages to determine if students exhibit a comprehensive knowledge of the fundamental theories and concepts necessary in the chemical sciences overall.

MATHEMATICS AND PHYSICS DEPARTMENT

Department Chair: Chacon

MATHEMATICS PROGRAM

Faculty: Barnett, Derr, Louisell, Lundberg, Melnykov, Nichols,

The major in mathematics leads to the degree of Bachelor of Arts (BA) or Bachelor of Science (BS). A flexible curriculum allows students to prepare for graduate school, for teaching careers, or for employment in areas that require mathematics (such as actuarial science, computer science, engineering, or statistics). Faculty advisors work individually with mathematics majors and minors to design programs of study. A list of advisors is available in the departmental office.

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

Program Goals

- To promote the development of attitude of mind and problem-solving skills required for efficient use, appreciation and understanding of mathematics.
- To provide students with mathematical proficiency necessary to be successful in the study of science, business, economics, engineering, technology, or education.
- To provide majors with a quality background in: differential and integral calculus for functions of one and several variables; linear and abstract algebra; probability; and applications of mathematics.
- To prepare mathematics majors for a successful transition to business, government, industry, teaching, and/or graduate school.
- To sustain, promote, and support the learning of mathematics in our service area.

Expected Student Outcomes

General Requirements

- All mathematics majors must complete the mathematics core curriculum: MATH 126, 207, 224, 307, 325, 327, 350 and 421. Majors are expected to complete core courses numbered above MATH 325 at CSU-Pueblo.
- 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 "an approved" computer language. It is strongly recommended that students complete this requirement within the first 60 credit hours.

Institutional and General Education

Please refer to the General Education Requirements in the *Academic Policies* section of this catalog or refer to the individual department's curriculum sheet.

Specific Requirements for the Mathematics Major

MATH Courses		Titles	Credits
MATH	126	Calculus and Analytic Geo I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geo II	5
MATH	307	Intro to Linear Algebra	4
MATH	325	Intermediate Calculus	3
MATH	327	Abstract Algebra	4
MATH	337	Differential Equations I	3
MATH	350	Probability	3
MATH	421	Advanced Calculus I	4
Upper-division MATH Electives (Excluding MATH 360, 361, 477)			6
		TOTAL	39

Other Requirements

Laboratory Science Sequence	10
Computer Programming	4
TOTAL	14

General Education credits	24
Electives	43
Total credit hours	**120**

Specific Requirements for the Mathematics Major/Secondary Certification

MATH Courses		Titles	Credits
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	307	Intro to Linear Algebra	4
MATH	325	Intermediate Calculus	3
MATH	327	Abstract Algebra	4
MATH	330	Intro to Higher Geometry	3
MATH	350	Probability	3
MATH	356	Stats for Engineers & Scientists	3
MATH	419	Number Theory	3
MATH	421	Advanced Calculus I	4
MATH	463	History of Mathematics	3
MATH	477	Materials & Tech of Teaching Secondary School Math	4
		TOTAL	46

Other Requirements

Courses		Titles	Credits
ED	202	Foundations of Education	3
ED	280	Educational Media and Technology	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learners	3
ED	485	Capstone Seminar	2
ED	488	Secondary Student Teaching	12
PSYCH	151	Human Development	3
PSYCH	342	Educational Psychology	3
RDG	435	Content Area Literacy	4
		TOTAL	36

Laboratory Science Sequence	10
Computer Programming	4
TOTAL	14

General Education	24
Total credit hours	**120**

Specific Requirements for the Minor in Mathematics

Courses		Titles	Credits
MATH	126	Calculus & Analytic Geometry I	5
MATH	224	Calculus & Analytic Geometry II	5
Electives including three upper-division courses* (Excluding MATH 360, 361, 362 & 477)			10
		TOTAL	20

* Two of these must be taken at CSU-Pueblo.

Specific Requirements for the Minor in Computational Mathematics

Courses		Titles	Credits
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	307	Linear Algebra	4
		OR	

MATH	342	Numerical Analysis	3
MATH	320	Introductory Discrete Mathematics	3
MATH	345	Algorithms & Data Structures	4
		TOTAL	22-23

Requirements for the Computational Mathematics Minor specific to Math Majors

Math majors, in lieu of the first 12 hours above are required to take:

Courses		Titles	Credits
An approved programming elective			3
CIS	171	Intro to Java Programming	4
MATH	242	Intro to Computation with MATLAB	4
		TOTAL	11

Specific Requirements for the Math/Physics Double Major

MATH Courses		Titles	Credits
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Alg with Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	307	Intro to Linear Algebra	4
MATH	325	Intermediate Calculus	3
MATH	327	Abstract Algebra	4
MATH	337	Differential Equations I	3
MATH	338	Differential Equations II	3
MATH	350	Probability	
		OR	
MATH	550	Elementary Stat Methods	3
MATH	356	Stats for Engineers and Scientists	3
MATH	421	Advanced Calculus I	4
		TOTAL	39

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	323/L	General Physics III/Lab III	5
PHYS	321/322	Thermodynamics/Lab	4
PHYS	431/432	Electricity and Magnetism/Lab	5
PHYS	441	Quantum Mechanics	4
PHYS	480	Practicum in Lab Instruction	1
PHYS	493	Seminar	1
		TOTAL	34

Other Requirements

Courses		Titles	Credits
MATH	425	Complex Variables	3
		OR	
PHYS	341/342	Optics/Lab	4
PHYS	492	Research	
		OR	
MATH	492	Research	1
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
Computer Programming			3
		TOTAL	17-18

General Education	24
Electives	5-6
Total credit hours	**120**

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 CSU-Pueblo Math Club. Many students serve as tutors in the Math Learning Center.

Outcomes Assessment Activities

- Faculty advisors meet individually with students on a regular basis to help with schedule planning and to discuss the student's progress toward educational and career goals. Advisors maintain a record of each student's performance in his/her program of study.

- During the senior year, each major takes the Mathematics Field Achievement Test. This test measures a student's achievement level in comparison with students throughout the country.

PHYSICS/PHYSICAL SCIENCE PROGRAM

Department Chair: Chacon

Faculty: Brown, Wallin

The major in physics leads to a Bachelor of Science (BS) Degree. In addition, supporting courses and general education courses in physics and astronomy are available for students with a wide spectrum of

interests, backgrounds and needs. Physics majors must consult with a program advisor 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 emphasis areas:

For the first three (non-teacher) emphasis areas, 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 CSU-Pueblo will be extended beyond four years.

Physics Emphasis:

Primarily for students planning graduate study toward a professional career in physics, astronomy or other related fields.

Engineering Emphasis:

For students planning to enter positions in industry upon graduation. Courses in engineering enhance the utility of the graduate to potential employers.

Chemical Physics or/Biophysics Emphasis:

These emphasis areas are designed to meet specific career objectives for an individual.

Physics/Secondary Certification Emphasis:

Provides students with the knowledge and skills necessary to obtain Colorado Department of Education certification as science teachers with an emphasis in physics.

Physical Science Secondary Certification Emphasis:

Provides students with the knowledge and skills necessary to obtain Colorado Department of Education Certification as science teachers with emphases in physics and chemistry.

Physics/Math Double Major:

See Math Program for details.

Minors

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

Program Goals

- To supply students with the necessary background to successfully pursue graduate study towards a professional career in physics, astronomy or a related field.
- To prepare students upon graduation to enter technical positions in government or industry.
- To provide students with the knowledge and skills necessary to obtain Colorado Department of Education Certification as science teachers of physics or physical science.

Expected Student Outcomes

General Requirements

- Students graduating with a BS in physics must have at least a 2.000 grade-point average in physics courses and no more than four credits in physics with grades of D.
- Students graduating with a minor in physics must have at least a 2.000 grade-point average in physics.
- A 2.500 grade-point average in the major area is required for admission to the teacher education program.
- At least 12 physics credits applied to the major (seven for minor) must be earned at CSU-Pueblo with a C or better average.
- Students must have earned a C or better grade in lower-division prerequisite courses before being admitted to upper-division courses in physics.
- In all but the teaching emphasis areas, students must demonstrate knowledge of computer programming.
- In all but the teaching emphasis areas, 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 is required of all majors.

Institutional and General Education

Please refer to the General Education Requirements in the *Academic Policies* section of this catalog or refer to your individual department's curriculum sheet.

Specific Requirements for the Physics Emphasis

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3
PHYS	322	Advanced Laboratory - Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341	Optics	3
PHYS	342	Advanced Laboratory - Optics	1
PHYS	431	Electricity and Magnetism	4
PHYS	432	Adv Lab Electricity & Magnetism	1
PHYS	441	Quantum Mechanics	4
PHYS	480	Practicum in Lab Instruction	1
PHYS	492	Research	1
PHYS	493	Seminar	1
PHYS	499	Thesis Research	1
		TOTAL	40

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
MATH	242	MATLAB Programming	4
		OR	
EN	101	Prob Solving for Engineers	3
MATH	126	Calculus & Analytic Geometry I	5
MATH	207	Matrix & Vector Algebra w/app	2
MATH	224	Calculus and Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
MATH	338	Differential Equations II	3
Approved Math Elective			3-4
		TOTAL	37-39

General Education	24
Electives	17-19
Total credit hours	**120**

Specific Requirements for the Engineering Emphasis

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3
PHYS	322	Advanced Laboratory- Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341	Optics	3
PHYS	342	Advanced Laboratory - Optics	1
PHYS	431	Electricity and Magnetism	4
PHYS	492	Research	1
		TOTAL	32

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
EN	101	Problem Solving for Engineers	3
EN	103	Introduction to Engineering	2
EN	107	Engineering Graphics	2
EN	211	Engineering Mechanics I	3
EN	212	Engineering Mechanics II	3
EN	231/L	Circuit Analysis I/Lab	5
EN	321	Thermodynamics I	3
EN	324/L	Mechanics of Materials/Lab	4
EN	441	Manufacturing Processes	4
EN	443	Quality Control and Reliability	3
EN	471	Operations Research	3
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Algebra w/Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
		TOTAL	63

General Education	24
Electives	1
Total credit hours	**120**

Specific Requirements for the Biophysics, or Chemical Physics Emphasis

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	301	Theoretical Mechanics	4
PHYS	321	Thermodynamics	3

PHYS	322	Advanced Laboratory- Heat	1
PHYS	323/L	General Physics III/Lab III	5
PHYS	341/342	Optics/Adv. Laboratory Optics	4
		OR	
PHYS	431	Electricity and Magnetism	4
PHYS	441	Quantum Mechanics	4
PHYS	492	Research	1
		TOTAL	32

Other Required Courses

Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
MATH	242	MATLAB Programming	4
		OR	
EN	101	Problem Solving for Engineers	3
MATH	126	Calculus & Analytic Geom I	5
MATH	207	Matrix & Vector Algebra w/Appl	2
MATH	224	Calculus & Analytic Geom II	5
MATH	325	Intermediate Calculus	3
MATH	337	Differential Equations I	3
Approved electives in biology			32
		OR	
Approved electives in chemistry			22
		TOTAL	53-64

General Education 24
Electives 11-0

Total credit hours 120

*A MATH/PHYSICS double major is also available in the department. (See MATH department requirements.)

Specific Requirements for the Physics Secondary Certification Emphasis

PHYS Courses		Titles	Credits
PHYS	110	Astronomy	3
PHYS	140/L	Light, Energy and the Atom/Lab	4
PHYS	221/L	General Physics I/Lab	5
PHYS	222/L	General Physics II/Lab	5
PHYS	321/322	Thermodynamics/Lab	4
PHYS	323/L	General Physics III/Lab III	5
PHYS	341/342	Optics/Lab	4
PHYS	480	Practicum in Lab Instruction	1
		TOTAL	31

Other Required Courses

Courses		Titles	Credits
ANS	420	Lab Safety	1
BIOL	100/L	Principles of Biology/Lab	4
BIOL	121/L	Environmental Conservation/Lab	4
CHEM	121/L	General Chemistry /Lab I	5
CHEM	122/L	General Chemistry II/Lab	5
ED	202	Foundation of Education	3
ED	280	Educational Media & Tech	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learners	3
ED	444	Teaching Secondary Science	4
ED	485	Capstone Seminar	2
ED	488	Student Teaching -Secondary	12
GEOL	101/L	Earth Science/Lab	4
MATH	126	Calculus & Analytic Geom I	5
MATH	224	Calculus & Analytic Geom II	5
PSYCH	151	Intro to Human Development	3
PSYCH	342	Educational Psychology	3
RDG	435	Content Area Literacy	4
		TOTAL	73

General Education 21

Total credit hours 125

Specific Requirements for the Physical Science Secondary Certification Emphasis

PHYS Courses		Titles	Credits
PHYS	110	Astronomy	3
PHYS	140/L	Light, Energy and the Atom/Lab	4
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	323/L	General Physics III/Lab III	5
		TOTAL	22

CHEM Courses		Titles	Credits
CHEM	121/L	General Chemistry I/Lab I	5
CHEM	122/L	General Chemistry II/Lab II	5
CHEM	211/L	Intro to Organic Chemistry/Lab	4
		OR	
CHEM	301/L	Organic Chemistry I/Lab I	4
CHEM	317/L	Quantitative Analysis/Lab	5
CHEM	321	Physical Chemistry I	3
CHEM	378	Practicum in Lab Instruction	1
		TOTAL	23

Other Required Courses

Courses		Titles	Credits
ANS	420	Lab Safety	1
BIOL	100/L	Principles of Biology/Lab	4
BIOL	121/L	Environmental Conservation/Lab	4
ED	202	Foundations of Education	3
ED	280	Educational Media and Tech	3
ED	301	Frameworks of Teaching	3
ED	412	Teaching Diverse Learners	3
ED	444	Teaching Secondary Science	4
ED	485	Capstone Seminar	2
ED	488	Student Teaching- Secondary	12
GEOL	101/L	Earth Science/Lab	4
MATH	126	Calculus & Analytical Geom I	5
MATH	224	Calculus & Analytic Geom II	5
PSYCH	151	Intro to Human Development	3
PSYCH	342	Educational Psychology	3
RDG	435	Content Area Literacy	4
		TOTAL	63

General Education 21

Total credit hours..... 129

Specific Requirements for the Minor in Physics

PHYS Courses		Titles	Credits
PHYS	221/L	General Physics I/Lab I	5
PHYS	222/L	General Physics II/Lab II	5
PHYS	323/L	General Physics III/Lab III	5
Approved Upper-division Electives in Physics			5
		TOTAL	20

Specific Requirements for the Minor in Physical Science

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

Courses		Titles	Credits
PHYS	110/L	Astronomy/Lab	4
PHYS	150	Elem Concepts in Phys & Chem	4
PHYS	201/L	Principles of Physics I/Lab I	4
PHYS	202/L	Principles of Physics II/Lab II	4
CHEM	111/L	Principles of Chemistry/Lab	4
EN	101	Problem Solving for Engineers	3
GEOL	101/L	Earth Science/Lab	4
		TOTAL	27

Co-Curricular Requirements

The program faculty believes that students should have co-curricular experiences that complement and reinforce their academic experiences. Therefore, the faculty encourages students to join and participate in events sponsored by the department and the Society of Physics Students (SPS), Sigma Pi Sigma initiations, physics expositions, picnics, graduation dinners, potluck dinners, etc. to foster a spirit of camaraderie.

Outcomes Assessment Activities

The Physics Program faculty will assess the skills, capacities, and knowledge of its majors as follows:

- The student must complete a senior research project including a formal presentation of results both in writing and orally to at least two members of the physics faculty (except for those in the teaching emphasis areas).

- The student must take the Physics Major Field Achievement Test offered by The Educational Testing Services (ETS) or another departmentally approved exam covering the sub-fields in physics at some point during his/her senior year (except for those in the teaching emphasis areas).

- By maintaining a portfolio for each student which contains college grades, records of special skills acquired, senior research project results, Field Achievement Test results and a record of co-curricular activities. The portfolio will remain on file in the department and will be added to as additional information is obtained from student or employer.

The program faculty believes that improvement in the skills, capacities, and knowledge of its minors can be assessed through required course work. The course grade will be a measure of the student's grasp of the basics in each discipline.

THE HASAN SCHOOL OF BUSINESS

Dr. Rex D. Fuller, Dean

Majors: Accounting (BSBA)
Business Management (BSBA)
Computer Information Systems (BS)
Economics (BSBA)

Minors: Accounting, Business Administration, Computer Information Systems, Computer Security, Economics, Marketing, Non-Profit Management Supervisory Management

MBA: Joint BSBA/MBA, BS-CIS/MBA and MBA (See the *Graduate Studies* section of this catalog for more information.)

Accreditation

The business majors (BSBA) the Hasan School of Business are accredited by AACSB International – The Association to Advance Collegiate Schools of Business. AACSB is a not-for-profit corporation of educational institutions, corporations and other organizations devoted to the promotion and improvement of higher education in business administration and management. Organized in 1916, AACSB International is the premier accrediting agency for bachelor's, master's and doctoral degree programs in business administration and accounting.

Mission

The mission of the Hasan School of Business is to provide quality undergraduate and graduate business education for a diverse student population. Our educational programs prepare our students to become business and industry leaders through our strong professional focus on contemporary business practices, managerial and entrepreneurial skills, current practices in computer information systems and information technology, and the global economy. Our faculty members remain current in their fields by engaging in intellectual pursuits that focus on applied discipline-based scholarship and instructional development. Our outreach activities, developed in partnership with the community, serve to enhance the quality of life and economic well-being in southeastern Colorado.

Undergraduate Majors

The Hasan School of Business offers undergraduate degrees in accounting, business management, business management with an information technology emphasis, business management with a marketing emphasis, computer information systems, and economics. Graduates will be able to successfully compete for appropriate entry-level positions in private firms, non-profit organizations or government. The accounting major prepares majors for professional careers in accounting. The knowledge and skills acquired in the business management major can be used in a number of areas including human resource and operations management. The business management major with an emphasis in marketing prepares the graduate to successfully promote and sell goods and services. The CIS major degree prepares graduates for successful careers in the computer information systems and information technology (IT) fields. Economics majors are particularly well prepared to enter graduate programs in business, in addition to assuming entry-level positions in business firms, non-profit organizations or government, as well as, positions in banking, financial analysis, and related financial services industries.

Note: Students planning to take professional certification exams in any field are encouraged to consult with their faculty advisor to understand any additional requirements.

The Hasan School of Business has identified the following learning goals for general knowledge and skills:

- **Communication Skills:** Effectively communicate ideas, observations, conclusions and recommendations to others in a variety of professional settings using appropriate written and oral communication skills.
- **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.
- **Quantitative Skills:** Demonstrate the ability to use mathematical concepts to collect, summarize and convey data, and to research, analyze, draw conclusions and to communicate ideas using quantitative methods.

- **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.

- **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.

- **Leadership Skills:** Demonstrate the ability to influence others in a variety of organizational settings using behaviors and practices that have been identified as effective.

- **Action and Change Orientation:** Take the initiative in introducing new practices and procedures that help to improve organizational performance and provide opportunities for growth including innovation and customer value perspectives.

- **Team Member Skills:** Demonstrate the ability to interact effectively with others in group situations involving teamwork, demographic diversity and other interpersonal skills.

- **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.

- **Knowledge of Business Disciplines:** Demonstrate theoretical and practical understanding of concepts, models and techniques associated with each business discipline.

Moreover, students must demonstrate 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;

- The ethical and regulatory environment of business;

- The financial, marketing, cultural and operational aspects of global business relations; and

- The ability to conduct independent research.

Undergraduate Minors

The goal of the accounting minor is to provide a solid foundation in financial and managerial accounting systems.

The goal of the business administration minor is to provide students with an understanding of the fundamentals of accounting, economics, finance, and the basics of managing a business and marketing a product or service.

The goal of the CIS minor is to provide a basic understanding of information systems and areas of specialization within the information technology field.

The goal of the economics minor is designed to provide students with an understanding of microeconomics and macroeconomics, income distribution, and to apply such principles to current economic problems.

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 non-profit management minor is to provide students with the basic management skills needed to provide effective managerial oversight in non-profit organizations.

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.

General Requirements for Business Majors (Accounting, Business Management and Economics)

All undergraduate business majors (accounting, business management and economics) take the **Business Core**. The Core prepares students who are declaring a business major for general business knowledge and skills. The Core also provides students with an understanding of and appreciation for the intellectual discipline needed for successful completion of a business major.

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 Core is designed to provide students with the opportunity to integrate their educational experience in business within a specific discipline and across disciplines.

Skills Courses

Courses		Titles	Credits
CIS	103	PowerPoint and Web Publishing	1
CIS	104	Excel Spreadsheets	1
CIS	105	MS Access	1
MATH	221*	Applied Calculus: An Intuitive Approach	4
		TOTAL	7

*Note: a grade of C- or better is required. Math 221 requires Math 121 or the equivalent.

Business Core

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
BUSAD	101	Business Careers and Opportunities	1
BUSAD	265	Inferential Statistics and Problem Solving	
		OR	
MATH	156	Introduction to Statistics	3
BUSAD	270	Business Communications	3
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
BUSAD	302	Ethics in Business	3
BUSAD	360	Advanced Business Statistics	3
FIN	330	Principles of Finance	3
MGMT	311	Operations & Quality Mgmt.	3
MKTG	340	Principles of Marketing	3
MGMT	301	Organizational Behavior	3
MGMT	485	Management Policy & Strategy	3
BUSAD	493	Business Seminar	1
		TOTAL	44

An overall GPA of 2.000 and a cumulative GPA of 2.000 in the business core courses is **required.** In addition, students should have completed the 100/200 -level business core courses prior to enrolling in 300/400-level business courses.

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

Select one:

Accounting 24
Business Management.....24
Business Management/Information Technology.....24
Business Management/Marketing 24
Economics.....24

Business majors may take a second major in a business discipline that is **not related** to their first major discipline, provided that the additional 300/400-level credits associated with the second major are in addition to the credits needed to complete the first major (if the first major is 120 credits and the second major is 24 credits, then the total credits to complete the first major and the second major will be a minimum of 144). For example, a student earning the BSBA in business management could also major in accounting or economics.

Business majors may take a minor in a business discipline that is **not related** to their major discipline, provided that the additional 300/400-level credits associated with the minor are in addition to the credits needed to complete their major (i.e., if the major is 120 credits and the additional credits in the minor are 9 credits, then the total credits to complete the major and the minor will be a minimum of 129). For example, a student earning the BSBA in business management could also minor in accounting or economics.

Graduation Requirements for All Majors (Accounting, Business Management, CIS, and Economics)

Students must satisfy the University general education requirements and the general institutional requirements, and have at least 120 total credit hours with a cumulative GPA of 2.000 to graduate.

At least 18 hours of a major or emphasis must be taken at CSU-Pueblo, but this may be waived at the discretion of the department chair or dean.

A cumulative GPA of 2.000 in the major and Business Core is required. Accounting majors are required to earn a minimum grade of C- in each 3/400-level accounting course.

Summary of Graduation Requirements (Accounting, Business Management, and Economics):

General Education 36*
Skills 7
Other Non-Business.....15
Business Core 38*
Major.....24

TOTAL (minimum credits) 120

*ECON 201 and ECON 202 are counted in General Education.

Summary of Graduation Requirements (CIS):

General Education 36*
Skills 10
Related Courses 9
IS Electives 13
Major.....52

TOTAL (minimum credits) 120

*Must include SPCOM 103 and MATH 121. ECON 201 and 202 are counted in General Education for Business Minors.

Co-Curricular Opportunities

Co-curricular activities are encouraged for all business students. Included are internships, student clubs, and seminar programs. A current list of clubs is available in the Hasan School of Business or on the CSU-Pueblo web site.

Outcomes Assessment Activities

Student Files

The Hasan School of Business curriculum offerings are designed to help track each student's progress at various checkpoints. Files are kept in a central file in the Hasan School of Business, accessible to the administration, the student, the student's advisor, and the faculty of the school.

In addition, the Hasan School of Business faculty measure achievement annually in each major and area of emphasis by administering a nationally standardized test. Results of such measurements are used for program assessment. The Hasan School of Business compiles information to assess the success of graduates. Information is obtained from the CSU-Pueblo Alumni Office, the Career Center, and other sources.

Advising

All pre-business, business, and CIS majors are advised in the Hasan School of Business. Students are required to meet with an HSB advisor each semester to plan their course schedules for the upcoming semester. In addition, consulting with an advisor is necessary in declaring a business major, applying for an internship and filing a graduation planning sheet.

ACCOUNTING MAJOR

Faculty: Eriksen, Todd, Wink

The major in accounting leads to the Bachelor of Science in Business Administration (BSBA). The primary objective is to provide an academic program that covers the conceptual basis of accounting as well as the application of accounting doctrine in current accounting practice. The programs of study are functional in that they provide the broad base of knowledge required by the accounting profession.

Goals for Accounting Major

Students must demonstrate the knowledge or skills of:

- Financial accounting and theory and practice, including revenue and expense recognition, valuation approaches, preparation and analysis of financial statements; and

- Cost and managerial accounting, including cost accounting, planning, evaluation, allocation, and budgeting processes.

Requirements for Accounting Major

Courses		Titles	Credits
ACCTG	301	Intermediate Accounting I	3
ACCTG	302	Intermediate Accounting II	3
ACCTG	311	Federal Income Tax	3
ACCTG	320	Cost Accounting	3
ACCTG	401	Advanced Financial Acctg	3
ACCTG	404	CPA Law	3
ACCTG	410	Auditing	3
ACCTG	411	Corporate, Estate and Gift Tax	3
		TOTAL	24

Requirements for the Accounting Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
ACCTG	301	Intermediate Accounting I	3
ACCTG	320	Cost Accounting	3
ACCTG	3/400	Elective	3
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
		TOTAL	21

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

BUSINESS MANAGEMENT MAJOR

Faculty: Ahmadian, Applbaum, Billington, Brennan, Browne, Ford, Hanks, Shah, Wakefield, Waronska, Zeis

The major in business management leads to the Bachelor of Science in Business Administration (BSBA), and provides students with the theoretical and conceptual basis of business as well as application skills to assume leadership roles in industry, government and education.

The undergraduate business management major permits students to select one emphasis as a specialty area. The knowledge and skills acquired with the major in business management can be used in a number of areas including human resource and operations management. The business management major with an information technology emphasis prepares students for careers in managing technology in modern organizations.

The business management major with a specialization in marketing prepares the graduate to successfully promote and sell goods and services.

Goals for Business Management Major

Students must demonstrate core business knowledge or skills in:

- Organization concepts including various design arrangements;
- Human resource management to include effective practices of recruitment, training and development, appraisal, compensation, and motivation; and
- Interpersonal relationships and effective small-group project management.

Students must also demonstrate knowledge or skills that are specific to their selected emphasis area (marketing or management) and;

- Understand and use appropriate emphasis area terminology, principles, and concepts;
- 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.

Requirements for Business Management Major

Courses		Titles	Credits
MGMT	318	Human Resource Management	3
MGMT	475	International Management	
		OR	
MKTG	475	International Marketing	3
MGMT	3/400	Electives	12
Business electives (3/400-level)			6
		TOTAL	24

Requirements for Business Management Major with Information Technology Emphasis

Courses		Titles	Credits
MGMT	318	Human Resource Mgmt	3
MGMT	368	Project Management	3
MGMT	475	International Management	
		OR	
MKTG	475	International Marketing	3
CIS	311	Web Development	3
CIS	350	Data Base Systems	3
CIS	3/400	Elective	3
Open Bus/CIS		Electives	6
		TOTAL	24

Additional Requirements (Replaces the 15 credits of Other Non-Business Credits in the Business Management graduation requirements)

Courses		Titles	Credits
CIS	150	Computer Information Systems	3
CIS	171	Java Programming	4
CIS	185	PC Architecture	3
CIS	240	Object Oriented Analysis and Design	3
CIS	289	Network Concepts	3
		TOTAL	16

Requirements for Business Management Major with Marketing Emphasis

Courses		Titles	Credits
MKTG	348	Consumer Behavior	3
MKTG	441	Marketing Strategies	3
MKTG	475	International Marketing	3
MKTG	3/400	Electives	6
Business electives (3/400-level)			9
		TOTAL	24

Business Administration Minors

Requirements for Business Administration Minor (open to non-business majors only)

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
FIN	330	Principles of Finance	3
MGMT	201	Principles of Management	3
MKTG	340	Principles of Marketing	3
		TOTAL	21

Requirements for Marketing Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
MKTG	340	Principles of Marketing	3
Select three of the following:			
MKTG	341	Sales Force Management	3
MKTG	342	Promotional Strategy	3
MKTG	348	Consumer Behavior	3
MKTG	475	International Marketing	3
		TOTAL	21

Requirements for Non-Profit Management Minor (open to non-business majors only)

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ECON	202	Principles of Microeconomics	3
BUSAD	270	Business Communication	3
MGMT	201	Principles of Management	3
MKTG	340	Principles of Marketing	3
Select three of the following:			
MGMT	301	Organizational Behavior	3
MGMT	318	Human Resource Management	3
MGMT	349	Management of Service Business	3
ECON	330	Public Finance	3
FIN	330	Principles of Finance	3
POLSC	330	Intro to Public Administration	3
POLSC	340	Public Policy	3
POLSC	411	Legislatures and Legislation	3
Internship Option			3
(The student may earn a 3 credit internship in a nonprofit organization. Internship opportunities must be approved by the appropriate department chair.)			
		TOTAL	24

Requirements for Supervisory Management Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ACCTG	202	Managerial Accounting	3
ECON	202	Principles of Microeconomics	3
MGMT	201	Principles of Management	3
MGMT	301	Organizational Behavior	3
MGMT	318	Human Resource Management	3
MGMT	410	Labor Management	3
		TOTAL	21

COMPUTER INFORMATION SYSTEMS DEPARTMENT

Faculty: Borton, Howell, Huff, Huffine, Spencer, Suscheck

The Bachelor of Science (BS) degree in Computer Information Systems (CIS) prepares graduates for successful careers in the computer information systems and information technology (IT) fields. Students complete a comprehensive, relevant, computer information systems curriculum that delivers high-demand knowledge, skills, and abilities in: software and web application development, system

analysis and design, network design and administration, database design and development, and IT security and operating systems.

The CIS program also includes three options for gaining proficiency in the field of computer security, which has been identified as one of the fastest growing occupations over the next 10 years. These include: a Computer Security option within the CIS major, a minor in Computer Security for non-CIS majors, and a Computer Security certificate for non-degree seeking students awarded by the CIS department.

Program Objectives

The key objectives of the CIS degree are:

1. To prepare the graduate for an entry level position in the information systems (IS) field.

2. To provide the graduate with a foundation for continued career growth as an IS professional.

Learning Outcomes for Graduates

To function effectively as IS professionals, graduates must achieve proficiency in each of the following areas:

- Technology
- Information Systems
- Analytical and Critical Thinking
- Interpersonal, Communication, and Team Skills
- Business Environment

The general learning outcomes in each area are summarized below.

In the area of technology, the graduate will be able to:

- Design and develop desktop and web-based applications using modern programming tools, techniques, and architectures.

- Design and develop internet-based systems using sound web design principles and multi-tiered architectures.

- Model, design, and develop database systems, including administrative processes and procedures for database management.

- Develop and configure safe and secure systems infrastructure that incorporate hardware, telecommunications, systems software, operating system, and systems configuration components.

The program seeks to develop a deeper understanding of the role of information systems within organizations, and the processes that support technology-enabled business development. The graduate will be able to:

- Perform all facets of a modern systems analysis and design methodology, including systems implementation.

- Plan, schedule and coordinate all tasks and activities involved in IT project management.

Learning Outcome Assessment

The CIS program is committed to continuous improvement through a rigorous assessment program focused on measuring learning outcomes and implementing measures to enhance students' chances of success. Within each individual course, faculty members utilize a variety of assessment techniques, including: student presentations, projects, peer evaluations, examinations, and student surveys.

To assess the success of the overall program, the CIS department conducts periodic surveys with a CIS industry advisory board, CIS alumni, employers, graduating seniors, and other interested groups. Information gathered from these sources is developed into specific actions that are implemented to improve the quality of education provided by the CIS program.

General Requirements

- Students majoring in computer information systems must maintain grades of C- or higher in all CIS courses. In addition, all required CIS prerequisites must be completed with a grade of C- or higher.

- Students must complete at least 120 semester hours in an approved program of study, including 52 hours in the major.

- Students must complete a minimum of 21 credits of CIS upper-division course work. At least 16 upper-division CIS credits must be taken in residence.

- Students must complete a course planning worksheet and participate in the advisement process with a CIS faculty advisor.

Specific Requirements

CIS majors complete a total of 120 credits. Thirty-six credit hours of general education requirements are included, and specific instructions for CIS majors are provided below. In addition, CIS majors are required to complete 10 credits in quantitative analysis, 52 credits in CIS major courses, 9 credits of required related courses, and 13 additional credits in an information systems environment.

General Education

Please refer to the General Education Requirements in the Undergraduate Programs section of this catalog. In meeting CSU-Pueblo's general education requirement, CIS majors must include the following:

Humanities: Must include 3 credits of SPCOM 103 or equivalent

Social Science: Must include ECON 201 and ECON 202 if Business minor

Mathematics: Must include MATH 121

Quantitative Analysis:

CIS majors must complete all of the following:

MATH	221	Applied Calculus
MATH	156	Introduction to Statistics
BUSAD	360	Advanced Business Statistics

CIS Major Courses:

CIS Courses		Titles	Credits
CIS	100	Intro to Word & Windows	1
CIS	103	PowerPoint & Web Publishing	1
CIS	104	Excel Spreadsheets	1
CIS	105	MS Access DBMS	1
CIS	150	Computer Information Systems	3
CIS	171	Intro to Java Programming	4
CIS	185	PC Architecture	3
CIS	215	UNIX Operating System	3
CIS	240	Object-Oriented Analysis & Design	3
CIS	271	Adv. Program Design with Java	4
CIS	289	Network Concepts	3
CIS	311	Introduction to Web Development	3
CIS	350	Data Base Systems	3
CIS	432	Senior Professional Project	6
CIS	493	Senior Seminar	1
CIS	3/400	Electives	12
		TOTAL	52

Students may select from the wide range of CIS electives listed below. By choosing different combinations of elective courses, students may elect to focus their CIS major in one of the following areas: computer security, software and web application development, systems analysis and design, database design and development, and network design and administration.

CIS Electives (must total 12 credits)

CIS Courses		Titles	Credits
CIS	356	XML Programming	3
CIS	359	Advanced Programming with C#	3
CIS	360	IT Security	3
CIS	401	Network Systems Admin	3
CIS	402	Linux Networks & Routing	3
CIS	411	Internet Server-Side Programming	4
CIS	450	Database Systems II	3
CIS	461	IT Security Management	3
CIS	462	Computer Forensics	3
CIS	481	IT Implementation	3
CIS	482	IT Strategy	3
CIS	490	Special Projects	1-5
CIS	491	Special Topics	1-5
CIS	496	Cooperative Education	1-5

Required Related Courses

ENG	305	Tech and Scientific Report Writing	3
MGMT	201	Principles of Management	3
MGMT	368	Project Management	3

Information Systems Environment

CIS majors may select one of two options to complete 13 credits in an information systems environment. Students may elect a Business Administration minor or select 13 credits of business electives. Students are required to consult with a CIS faculty advisor to select the option most appropriate to their needs.

Computer Security Option for CIS Majors

CIS majors may choose the Computer Security option by completing the following 12 CIS elective credits:

CIS Courses		Titles	Credits
CIS	360	IT Security	3
CIS	461	IT Security Management	3
CIS	462	Computer Forensics	3
CIS	401	Network Systems Administration	3
		OR	
CIS	402	Linux Networks and Routing	3

CIS MINORS

Non-CIS majors who wish to minor in CIS have several options. They may select a minor in Computer Security, or they may build their own minor based on the completion of seven core courses and one of four separate tracks. Students must complete a minimum of six credits of upper-division CIS courses.

Computer Security Minor

The computer security minor prepares the graduate for positions in the IT security field, including IT security specialist and IT security administrator. A minor extends training in the profession to majors in a variety of fields. Course requirements (21 credits) are:

CIS Courses		Titles	Credits
CIS	185	PC Architecture	3
CIS	215	Unix Operating Systems	3
CIS	289	Network Concepts	3
CIS	360	IT Security	3
CIS	461	IT Security Management	3
CIS	462	Computer Forensics	3
CIS	401	Network Systems Administration	3
		OR	
CIS	402	Linux Networks and Routing	3
		SUB-TOTAL	21

Computer Information Systems Minor

Students who prefer a minor other than Computer Security complete the following core and one of the tracks listed below.

CIS Minor Core

CIS Courses		Titles	Credits
CIS	100	Introduction to Word and Windows	1
CIS	103	PowerPoint & Web Publishing	1
CIS	104	Excel Spreadsheets	1
CIS	105	MS Access DBMS	1
CIS	150	Computer Information Systems	3
CIS	171	Introduction to Java Programming	4
CIS	240	Objected Oriented Analysis and Design	3
		SUB-TOTAL	14

Personal Computers/Local Area Network Support

CIS Courses		Titles	Credits
CIS		Minor Core	14
CIS	185	PC Architecture	3
CIS	289	Network Concepts	3
CIS	401	Network Systems Administration	3
		OR	
CIS	401	Linux Networks and Routing	3
		TOTAL	23

Information Analyst

CIS Courses		Titles	Credits
CIS		Minor Core	14
CIS	311	Introduction to Web Development	3
CIS	350	Database Systems	3
		TOTAL	20

Web Development Specialist

CIS Courses		Titles	Credits
CIS		Minor Core	14
CIS	271	Advanced Program Design with Java	4
CIS	311	Introduction to Web Development	3
CIS	411	Internet Server-Side Programming	4
		TOTAL	25

Software Engineer/Programmer

CIS Courses		Titles	Credits
CIS		Minor Core	14
CIS	271	Adv. Program Design with Java	4
CIS	356	XML Programming	3
CIS	359	Advanced Programming with C#	3
		TOTAL	24

COMPUTER SECURITY CERTIFICATE

Non-degree seeking students may earn a Computer Security certificate from the CSU-Pueblo CIS program by completing the course requirements for the CIS Computer Security minor. Students interested in the certificate program should contact the CIS department for further information.

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. The CIS department sponsors a student chapter of a nationwide IT professional organization.

ECONOMICS MAJOR

Faculty: Duncan, Fuller, Regassa, Whited

The major in economics leads to the Bachelor of Science in Business Administration (BSBA) and provides students with the theoretical and conceptual basis of economics. Economics majors are particularly well prepared to enter graduate programs in business in addition to assuming entry-level positions in business firms, non-profit organizations or government. The major in economics also prepares the graduate for positions in banking, financial analysis, and related financial services industries.

Goals for Economics Major

Students majoring in economics must demonstrate that they:

- Understand microeconomic theories of production and consumption, including strategic behavior and decision making under uncertain conditions; and
- Understand macroeconomic models including classical, Keynesian, monetarist, new classical and new Keynesian systems, including applications of monetary and fiscal policies in the different models.

Students majoring in economics must also demonstrate that they:

- Understand the specific theories studied in their elective courses, which may include money and banking, international economics, public finance, regional economic analysis and labor economics.

Requirements for Economics Major

Courses		Titles	Credits
ECON	301	Intermediate Macroeconomics	3
ECON	302	Intermediate Microeconomics	3
ECON	475	International Economics	
		OR	
FIN	475	International Finance	3
ECON/FIN	3/400	Electives	9
Business electives (3/400-level)			6
		TOTAL	24

Requirements for Economics Minor

Courses		Titles	Credits
ACCTG	201	Financial Accounting	3
ECON	201	Principles of Macroeconomics	3
ECON	202	Principles of Microeconomics	3
ECON	301	Intermediate Macroeconomics	3
ECON	302	Intermediate Microeconomics	3
ECON	3/400	Elective	3
MGMT	201	Principles of Management	3
		TOTAL	21

JOINT BSBA/MBA
(3 PLUS 2 PROGRAM)

Admission Requirements

Students are required to take the Graduate Management Admissions Test (GMAT). An admission formula of 200 times the undergraduate GPA (4.000 system) plus the GMAT score is used as an admission score. The undergraduate GPA must be based on a minimum of 90 semester hours of course work including MGMT 201, FIN 330, and MKTG 340. Students must have a minimum GPA of 3.25 and a GMAT of at least 450 (i.e., an index of 1100) to be admitted to the program. Students who fail to meet these requirements may provide additional evidence of their ability to complete the program. Such evidence may include: performance in outside activities, evidence of creativity or leadership, and a record of accomplishment.

Prior to enrolling in the first 500-level course, students are expected to have completed a significant portion of the requirements for their undergraduate major and must have submitted an acceptable GMAT.

Note: students are strongly encouraged to complete an internship prior to enrolling in graduate-level courses.

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 that 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.

General Requirements

Students in the joint BSBA/MBA program must complete:

- The Business Core (excluding BUSAD 302, MGMT 301, 311, and 485);
- FIN 330, MKTG 340 and BUSAD 493;
- A major within the Hasan School of Business; and
- All remaining specified MBA courses.

In addition, students must satisfy all GPA requirements for the BSBA and the MBA (see the MBA listing under the *Graduate Programs* section of the catalog).

Joint Degree Core

Courses		Titles	Credits
FIN	330	Principles of Finance	3
MKTG	340	Principles of Marketing	3
BUSAD	502	Business Ethics and Env	3
ECON	510	Economics for Managers	3
MGMT	511	Production/Operations Management	3
MGMT	520	Management of Organizational Behavior	3
MGMT	565	Management Information Systems	3
MGMT	585	Management Policy & Strategy	3
		TOTAL	24

In addition, the following MBA courses must be completed:

Courses		Titles	Credits
ACCTG	510	Managerial Accounting	3
FIN	530	Financial Management	3
MGMT	565	Management Information Systems	3
MKTG	540	Marketing Management	3
Select one:		ACCTG 575, BUSAD 575, ECON 575, FIN 575, MGMT 575 OR MKTG 575	3
Approved Graduate Electives			6
		TOTAL GRADUATE	36

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

General Education	36
Skills	7
Other Non-business	15
Business Core	26
Business Major	24
MBA requirements	36
TOTAL	144

Students who complete part of the joint degree plan but decide to opt out of the MBA program and continue towards earning **only** the BSBA are granted credit towards the BSBA for 500-level courses taken as follows:

500-Level Course Taken		**300- and 400-Level Course Credit**	
ACCTG	510	ACCTG	495
BUSAD	502	BUSAD	302
BUSAD	575	BUSAD	475
ECON	510	ECON	308
MGMT	511	MGMT	311
MGMT	520	MGMT	301
MGMT	585	MGMT	485
MKTG	540	MKTG	495

JOINT BS-CIS/MBA
(3 PLUS 2 Program)

Admission Requirements

Students are required to take the Graduate Management Admissions Text (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 90 semester hours of course work, including MGMT 201, FIN 330, and MKTG 340. Students must have a minimum GPA of 3.25 and a GMAT of at least 450 (i.e., an index of 1100) to be admitted to the program. Students who fail to meet these requirements may provide additional evidence of their ability to complete the program. Such evidence may include: performance in outside activities, evidence of creativity or leadership, and a record of accomplishment.

Prior to enrolling in the first 500-level course, students are expected to have completed a significant portion of the requirements for their undergraduate major and must have submitted an acceptable GMAT.

Note: students are strongly encouraged to complete an internship prior to enrolling in graduate-level courses.

General Requirements

Students in the joint BS-CIS/MBA program must complete:

- The CIS required and required-related courses excluding CIS 350 and CIS 432;
- ACCTG 201, ECON 202, FIN 330 and MKTG 340;
- The CIS major within the Hasan School of Business; and
- All remaining specified MBA courses.

In addition, students must satisfy all GPA requirements for the BS in CIS and the MBA (see the MBA listing under the *Graduate Programs* section of the catalog).

Joint Degree Core

Courses		Titles	Credits
CIS	532	Senior Professional Project	6
CIS	550	Data Base Systems	3
CIS	581	IT Implementation	3
		OR	
CIS	582	IT Strategy	3
		TOTAL	12

In addition, the following MBA courses must be completed:

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	585	Management Policy & Strategy	3
MKTG	540	Marketing Management	3
		TOTAL GRADUATE	24

In summary the joint degree plan has the following requirements:

General Education	36
Quantitative Analysis	10
Required-related Courses	9
Business and Other Electives	13
CIS Required Courses	31
CIS Elective Courses	9
MBA requirements	36
TOTAL	144

Students who complete part of the joint degree plan but decide to opt out of the MBA program and continue toward earning **only** the BS in CIS are granted credit toward the BS for 500-level courses taken as follows:

500-Level Course Taken		**300- and 400-Level Course Credit**	
ACCTG	510	ACCTG	495
BUSAD	502	BUSAD	302
ECON	510	ECON	308
MGMT	511	MGMT	311
MGMT	520	MGMT	301
MGMT	585	MGMT	485
MKTG	540	MKTG	495
CIS	532	CIS	432
CIS	550	CIS	350
CIS	581	CIS	481
CIS	582	CIS	482

COURSE DESCRIPTION INFORMATION

Colorado State University-Pueblo does not offer all the courses listed in this catalog every semester or every year.

Each semester the University creates an on-line course offering module listing a detailed schedule of courses offered and the times and places of instruction. Courses listed in the on-line course offering module 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.
600-699	Colorado State University (Fort Collins) courses offered at Colorado State University-Pueblo toward a master's degree in English.

Variable credit courses
(1-3 VAR) indicates variable credit; the minimum and maximum credit limitations. An example:

> ***494 Field Experience (1-5 VAR)***
> Off-campus individual experience providing transition from classroom instruction to on-the-job experience. Supervised by instructor and job supervisor. Prerequisite: senior standing and permission of instructor.

Cross-listed courses
Courses in which students may earn credit under either (but not both) of two prefixes (e.g., SOC or HIST) for the same offering.

Corequisite
A requirement which must be taken concurrently with another course of instruction.

Prerequisite
A requirement which must be fulfilled before a student can enroll in a particular course. Permission of the instructor for a student to attend a class is implied when the student has met the prerequisites specified by the department.

Cancellation of courses
The University reserves the right to cancel courses not selected by an adequate number of students or not suitably staffed by qualified faculty.

KEYS TO SYMBOLS

Course descriptions include a variety of symbols conveying essential information. The following standard course description with explanation of symbols serves as a model:

> **102 Composition II 3(3-0)**
> Sequentional course to provide intensive consideration of essay development and to introduce procedures and techniques in preparing the referenced paper. Prerequisite: ENG 101. (F,S,SS)

102	course number
Composition II	course title
3(3-0)	number of credits (clock hours in lecture per week – clock hours in laboratory demonstration or studio experiences per week)
"Sequential course"	explanation of course content
Prerequisite: ENG 101	required to be taken before
(F,S,SS)	taught fall, spring and summer

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
S/U	Grade of S or U 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 English (Fort Collins)

COURSE PREFIXES

Courses of instruction are identified by the following approved prefixes:

ACCTG	–	Accounting
AIM	–	Automotive Industry Management
ANS	–	Applied Natural Science
ANTHR	–	Anthropology
ART	–	Art
BBE	–	Bilingual Bicultural Education
BIOL	–	Biology
BUSAD	–	Business Administration
CET	–	Civil Engineering Technology
CHEM	–	Chemistry
CIS	–	Computer Information Systems
CS	–	Chicano Studies
ECON	–	Economics
ED	–	Education
EE	–	Electrical Engineering
EN	–	Engineering
ENG	–	English
ET	–	Engineering Technology
EXHP	–	Exercise Science and Health Promotion
FIN	–	Finance
FL	–	Foreign Language
FMTS	–	Facilities Management & Technology Studies
FRN	–	French
GEOG	–	Geography
GEOL	–	Geology
GER	–	German
HIST	–	History
HONOR	–	Honors
INTL	–	International Studies
ITL	–	Italian
MATH	–	Mathematics
MCCNM	–	Mass Communications/Center New Media
ME	–	Mechanical Engineering
MET	–	Mechanical Engineering Technology
MGMT	–	Management
MKTG	–	Marketing
MSL	–	Military Science and Leadership
MUS	–	Music
NSG	–	Nursing
PHIL	–	Philosophy
PHYS	–	Physics
POLSC	–	Political Science
PSYCH	–	Psychology
RDG	–	Reading
REC	–	Recreation
RUS	–	Russian
SCI	–	Science
SOC	–	Sociology
SOCSC	–	Social Science (Continuing Education Program Only)
SPCOM	–	Speech Communication
SPN	–	Spanish
SW	–	Social Work
TH	–	Theatre
US	–	University Studies
WS	–	Women's Studies

ACCOUNTING (ACCTG)

UNDERGRADUATE COURSES

ACCTG 201 Principles of Financial Accounting 3(3-0)
Introduction to accounting as the language of business. Emphasis on reasoning and logic of external reporting model. May include computer-based applications. Prerequisite: MATH 121. (*)

ACCTG 202 Principles of Managerial Accounting 3(3-0)
Managerial uses of accounting information, including cost-based, decision making, differential accounting, and responsibility accounting. May include computer-based applications. Prerequisite: ACCTG 201, (*)

ACCTG 301 Intermediate Accounting I 3(3-0)
Conceptual framework, accounting cycle, financial statements, time value of money, revenue recognition, and accounting for cash, receivables, inventory, and long-term assets. Prerequisites: ACCTG 202 and junior standing. (F)

ACCTG 302 Intermediate Accounting II 3(3-0)
Investments, liabilities, bonds, leases, income taxes, pensions, employee benefit plans, shareholder equity, earnings per share, accounting changes and errors, and the statement of cash flows. Prerequisite: ACCTG 301. (S)

ACCTG 311 Federal Income Tax 3(3-0)
Federal income tax as applied to income recognition, exclusions from income and property transactions of individuals. Introduction to tax research resources and techniques. Prerequisite: ACCTG 301. (*)

ACCTG 320 Cost Accounting 3(3-0)
Accounting procedures applicable to industries with emphasis on job order process costs, standard cost and profit planning including differential costs, internal profit and price policies, and capital budgeting. Prerequisites: ACCTG 202 and junior standing. (*)

ACCTG 401 Advanced Financial Accounting 3(3-0)
Application of fundamental theory to partnerships, international operations, consolidated statements, and business combinations; introduction to government. 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. Prerequisites: ACCTG 301, 311, and 320. (*)

ACCTG 440 Governmental/Non-Profit Accounting 3(3-0)
A study of advanced accounting topics especially as concerns not-for-profit entities with emphasis on governmental accounting. Prerequisites: ACCTG 202 and junior standing. (*)

ACCTG 475 International Accounting 3(3-0)
A study of the accounting issues that affect the global economy. Topics include history of international accounting and various international accounting models. Prerequisite: ACCTG 302. (*)

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 grading.) Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

ACCTG 501 Fundamentals of Accounting 1.5(1.5-0)
This class, as an MBA leveling course, provides a basic understanding of financial reporting accounting, including the accounting cycle, financial statement preparation, and internal controls. Prerequisite: admission to MBA. (*)

ACCTG 510 Managerial Accounting 3(3-0)
Accounting concepts and methods utilized in managerial planning, budgeting, controlling, and evaluating to optimize decision making. Prerequisite: admission to MBA or permission of MBA Director. (*)

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 admission to MBA or permission of MBA Director. (*)

ACCTG 561 Current Issues in Auditing 3(3-0)
Current issues related to evolving auditing models - internal or external. Prerequisites: ACCTG 410 and admission to MBA or permission of MBA Director. (*)

ACCTG 571 Current Issues in Accounting 3(3-0)
In-depth discussion of various problems in accounting Prerequisite: admission to MBA or permission of MBA Director. (*)

ACCTG 575 International Accounting 3(3-0)
A study of the accounting issues that affect the global economy. Topics include various international accounting models, multinational tax issues, and financial analysis. Prerequisite: ACCTG 510. (*)

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: admission to MBA or permission of MBA Director. (*)

ACCTG 598 Internship (1-3 VAR)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: admission to MBA or permission of MBA Director. (S/U grading) (*)

ACCTG 599 Thesis Research (1-6 VAR) (*)

AUTOMOTIVE INDUSTRY MANAGEMENT (AIM)

UNDERGRADUATE COURSES

AIM 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)

AIM 115 Automotive Engine Design, Operation and Repair 5(3-4)
Design, operation and repair techniques of current and future automotive engines. (F)

AIM 125 Automotive Suspension and Brake Systems 3(3-0)
Design and theory of front and rear automotive suspensions, steering, and brake systems. (S)

AIM 125L Automotive Suspension and Brake Systems Lab 1(0-2)
Corequisite: AIM 125. (S)

AIM 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)

AIM 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: AIM 165L (S)

AIM 165L Automotive Power Trains and Drive Lines Lab 1(0-2)
Corequisite: AIM 165. (S)

AIM 235 Automotive Fuel Systems and Exhaust Emissions 3(3-0)
Design and theory of automotive fuel systems, fuel injection, and supercharging; functions and design of automotive emissions systems. Prerequisites: AIM 115 and AIM 245 or permission of instructor. Corequisite: AIM 235L. (S)

AIM 235L Automotive Fuel Systems and Exhaust Emissions Systems Lab 1(0-2)
Corequisite: AIM 235. (S)

AIM 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)

AIM 245L Automotive Electrical Systems Laboratory I 1(0-2)
Corequisite: AIM 245. (F)

AIM 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: AIM 245/245L. Corequisite: AIM 255L. (S)

AIM 255L Automotive Electrical Systems II Lab 1(0-2)
Corequisite: AIM 255. (S)

AIM 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: AIM 105 and 155. (S)

AIM 296 Cooperative Education Placement (1-5 VAR)
Supervised industrial field work. Prerequisite: freshman or sophomore standing, AIM major. (F,S)

AIM 305 Auto Customer Service Regulatory Issues 3(3-0)
A study of automotive industry management theory, styles, equipment, communications and regulatory issues. Prerequisites: AIM 155 and 265. (F)

AIM 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)

AIM 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: AIM 115, 125, 235/235L, 245/245L, 255/255L and 345. (S)

AIM 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)

AIM 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)

AIM 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, AIM 155, 265 and 305. (S)

AIM 490 Special Projects (1-5 VAR)
Individualized instruction within a special interest area, under the supervision of a department faculty member. Prerequisite: Junior or Senior standing and permission of instructor. (*)

AIM 491 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (F,S)

AIM 495 Independent Study (1-4 VAR)
Directed, independent study of topics agreed upon by the student and instructor. Prerequisite: AIM majors, junior standing, permission of instructor and department chair. (F,S,SS)

AIM 496 Cooperative Education Placement (1-5 VAR)
Supervised industrial field work. Prerequisite: junior or senior standing, AIM major. (F,S)

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 588 Internship Seminar 1(1-0)
Graduate internship presentation and examination for completion of ANS degree. Prerequisite: graduate standing. (F,S,SS)

ANS 589 Thesis Defense 1(1-0)
Thesis presentation for completion of ANS degree. Prerequisite: graduate standing. (F,S,SS)

ANS 593 Seminar 1(1-0)
An interdisciplinary seminar on topics appropriate to the application of natural sciences. Prerequisite: graduate standing and ANS 510. (S)

ANTHROPOLOGY (ANTHR)

UNDERGRADUATE COURSES

ANTHR 100 Cultural Anthropology 3(3-0)
Introduction to the concepts by which anthropology understands particular lifestyles, and to the constructs by which it accounts for similarities and differences among lifestyles. (*)

ANTHR 104 Physical Anthropology 3(3-0)
Biological nature of humans; emphasis on how forces of evolution have shaped human nature in the past and present. (*)

ANTHR 105 Introduction to Archaeology 3(3-0)
Evolution of culture as explained through archaeological methods and theories; emphasis on the preservation and protection of the cultural environment. (*)

ANTHR 106 (ENG 106) Language, Thought and Culture 3(3-0)
Cross-cultural introduction to language processes in human society. (*)

ANTHR 211 Laboratory and Field Techniques (1-10 VAR)
Training in field and/or laboratory techniques by participation in anthropological project. Prerequisites: permission of instructor; previous work in anthropology recommended. (*)

ANTHR 212 (SOC 212) The Forensics of Bones 3(3-0)
Familiarize students with the basic procedures used by forensic anthropologists to obtain evidence in criminal investigations. (*)

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 416 (SOC 416) Crime and the Mind 3(3-0)
Examination of "crime" as an ongoing aspect of human existence. (*)

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. (*)

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 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 117 Digital Media Basics 3(1-4)
This course is an introduction to digital media on the Mac. The course will introduce the student to computer graphics for print, the web, animation, and digital video. (F)

ART 141 Drawing I 3(1-4)
Development of perception and technical skills in rendering. (F,S,SS)

ART 211 History of Art I 3(3-0)
A survey of world art from prehistory to ca. 1300 CE. Introduces issues related to visual design, historical context, and interpretation of works of art. (F,*)

ART 212 History of Art II 3(3-0)
A survey of world art from ca. 1300 CE to contemporary times. Introduces issues related to visual design, historical context and interpretation of works of art. (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(1-4)
Continued development of perception and technical skills in rendering, utilizing the human figure as a means of expression. Prerequisite: ART 141. (F,S,SS)

ART 247 Ceramics I 3(0-6)
Essential skills in ceramic processes; emphasis on form and function as related to students' needs and creative intent. Prerequisite: Permission of instructor. (F,S,SS)

ART 250 Fibers and Jewelry for Educators 3(1-4)
Students will explore, understand, and be able to teach the meaning, techniques, aesthetics, visual vocabulary, and history of fibers and jewelry. Prerequisites: ART 115, 116. (F,S,SS)

ART 270 Printmaking I (1-3 VAR)
Introduction to multiple image production through traditional and non-traditional methods, including woodcut, linocut, intaglio, serigraphy and lithography. (F,S*)

ART 274 Computer Imaging I 3(1-4)
The production of original imagery through the use of art-oriented software on microcomputers with video input. Prerequisites: Art core or permission of instructor. (S)

ART 275 Art of the Moving Image I 3(1-4)
An introduction to the creative art of the moving image, such as video art, multi-media and animation. Techniques include web animation, digital video and animation compositing. Prerequisite: Art core or permission of instructor. (F)

ART 276 Photography I 3(1-4)
Photography as an art form and as an adjunct to other art media. Prerequisite: Art core or permission of instructor. (F)

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 291 Special Topics (1-5 VAR) (F,S,SS)

ART 311 Ancient Art 3(3-0)
A study of the visual arts of the major civilizations of the ancient Mediterranean world, including Egypt, Greece and Rome. Prerequisite: ART 211. (*)

ART 312 Medieval Art 3(3-0)
A study of the art and architecture produced in Europe during the Middle Ages from ca. 325 to 1300 CE. Prerequisite: ART 211. (*)

ART 313 Renaissance Art 3(3-0)
A study of art and architecture in Italy and the Netherlands from ca. 1300 to 1600 CE. Prerequisite: ART 212. (*)

ART 314 Baroque and Rococo Art 3(3-0)
A study of art in Europe from ca. 1600 to 1785. Examines the diverse art forms in Italy, Spain, England, Holland and France. Prerequisite: ART 212. (*)

ART 315 Nineteenth-Century Art 3(3-0)
A study of art produced during the nineteenth-century in Europe and the Americas, with emphasis on France and the United States. Prerequisite: ART 212. (*)

ART 333 Sculpture II: Site Art 3(0-6)
Creating sculptural elements whose form and content are a response to its site and context. Prerequisite: art core or permission of instructor. (F,S,SS)

ART 334 Painting II 3(0-6)
Techniques in oil and acrylic emphasizing the application of materials to subject matter and composition. Prerequisite: ART 234 (F,S,SS)

ART 342 Drawing III 3(1-4)
Advanced course in pursuit of increased skills of perception. Prerequisite: ART 141, 242. (F,S,SS)

ART 347 Ceramics II 3(0-6)
In-depth development of specific ceramic techniques; skills and personalization of style. Students will load and fire all the kilns as well as mix glazes. Prerequisite: ART 247 or permission of instructor. (F,S,SS)

ART 370 Printmaking II (1-3 VAR)
Investigation into multiple image production through traditional and non-traditional methods. Special attention given to specialized area of student interest. (F,S,*)

ART 371 Printmaking: Photo Processes 3(0-6)
Basic processes of printing from raised and lowered surfaces. Prerequisite: ART 270. (F,S,SS)

ART 372 Printmaking: Computers and Photo Processes 3(0-6)
Investigation into pre-press software and its application to multiple color image production. Description of photo processes and platemaking/ dark-room techniques. Prerequisite: Art 370 or 371. (F,S,SS)

ART 374 Computer Imaging II 3(1-4)
The use of microcomputers to produce original slides or prints and animation on video tape. Prerequisite: ART 274. (S)

ART 376 Photography II 3(1-4)
Photography as an art form and an adjunct to other art media. Prerequisite: ART 276. (F)

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 397 Studio Series (1-3 VAR)
Advanced studio offerings for students who have completed all other course offerings in a specific discipline. Scheduled concurrently with lower-division studios. Repeatable for a maximum of nine credits. Prerequisite: permission of instructor. (F,S,SS)

ART 410 Senior Career Orientation 2(2-0)
Formal presentation of student's academic and creative portfolio to the art faculty. Senior exhibition and artist's statement, resumes and job placement interviews. Prerequisite: senior standing. (F,S,SS)

ART 411 Twentieth-Century Art 3(3-0)
A survey of major developments in the visual arts, art theory, and criticism during the twentieth century. Prerequisite: ART 212. (*)

ART 412 Contemporary Art (1-3 VAR)
A study of selected recent developments in the visual arts. Reading, viewing, and discussion of new developments in media, art theory and criticism. Prerequisite: ART 212. (*)

ART 413 Native American Art 3(3-0)
A study of art and visual design in Native North American cultures from prehistory to contemporary times. Prerequisite: ART 212. (*)

ART 414 Asian Art 3(3-0)
A survey of art from major cultures of Asia and the Far East from ancient to contemporary times. Prerequisite: ART 211. (*)

ART 415 Latin American Art 3(3-0)
A survey of art of Latin America from ancient to the contemporary times. Includes Chicano art. Prerequisite: ART 212. (*)

ART 433 Advanced Site Art 3(0-6)
Advanced projects in Site Art that involve the presentation and creation of site specific sculptural forms. Prerequisite: art core or permission of instructor. (F,S,SS)

ART 434 Painting III 3(0-6)
Advanced painting with an emphasis on individual development. Focus pertains to formal, pictorial and technical problems met in developed personal imagery. Prerequisite: ART 334 (F,S,SS)

ART 442 Drawing IV 3(1-4)
Emphasis on development of individual skills of perception and exploration of new techniques and materials. May be repeated twice. Prerequisite: ART 342 (F,S)

ART 447 Advanced Ceramics/ Kiln Construction 3(0-6)
This course explores advanced theories and techniques involved in working with clay: forming, firing, glazing, kiln design and construction. (Repeatable to 9 hours.) Prerequisite: permission of instructor. (F,S,SS)

ART 470 Printmaking III (1-3 VAR)
Advanced investigation into multiple image production through individual techniques and interest. Prerequisite: Art 270, Art 370 or permission of instructor. (*)

ART 475 The Art of the Moving Image II 3(1-4)
Advanced creative design of moving images, such a video art, multi-media and animation. Techniques include web animation, digital video and animation compositing. Prerequisite: Art 275 or permission of instructor. (S)

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)

BILINGUAL BICULTURAL EDUCATION (BBE)

UNDERGRADUATE COURSES

BBE 400 Workshop (1-3 VAR)
Development of classroom materials and curriculum in bilingual education. (*)

BBE 401 Teaching English Language Learners 3(3-0)
Methods and techniques of teaching English to children of linguistically diverse backgrounds; K-6 and 7-12 focus. Field experience required. Prerequisite: admission to Teacher Education Program. (SS)

BBE 403 Content Instruction for EL Learners 3(3-0)
Methods and techniques for teaching content area subjects to students of linguistically different backgrounds; K-6 and 7-12 focus. Field experience required. Prerequisites: admission to Education. (F)

BBE 420 Literacy for EL Learners 3(3-0)
Methods and techniques of teaching Literacy to K-12 English Language Learners. Field experience required. Prerequisites: admission to Education, RDG 410/RDG 435 or a beginning course in reading. (SS)

BBE 460 ELL Assessment & Administration 2(2-0)
Study of state, federal, and local laws and policies concerning ELL programs; language proficiency instruments used by teachers for assessment and placement of Ells. Prerequisites: admission to Education (SS)

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 501 Teaching English Language Learners 3(3-0)
Methods and techniques of teaching English to children of linguistically diverse backgrounds; K-6 and 7-12 focus. Field experience required. Prerequisites: admission to Education, graduate standing. (SS)

BBE 503 Content Instruction for EL Learners 3(3-0)
Methods and techniques for teaching content area subjects to students of linguistically different backgrounds; K-6 and 7-12 focus. Field experience required. Prerequisites: admission to Education, graduate standing. (F)

BBE 520 Literacy for EL Learners 3(3-0)
Methods and techniques of teaching Literacy to K-12 English Language Learners. Field experience required. Prerequisites: admission to Education, graduate standing, RDG 410/RDG 435 or a beginning course in reading. (SS)

BBE 541 Survey of Research in Bilingual Education 2(2-0)
Prerequisite: graduate standing. (*)

BBE 560 ELL Assessment & Administration 2(2-0)
Study of state, federal, and local laws and policies concerning ELL programs; language proficiency instruments used by teachers for assessment and placement of ELLs. Prerequisites: admission to Education, graduate standing. (SS)

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 171 Career Planning I 1(1-0)
Identifying career options and creating a personalized educational program. (F,S)

BIOL 191 College Biology I/Botany 3(3-0)
Basic cell structure and function, reproduction, and heredity. Study of structure, function, evolution, biodiversity, and ecology of plants, including fungi. Prerequisites: one year high school algebra or equivalent, and one year high school chemistry or equivalent, and one year high school biology or equivalent. Corequisite: BIOL 191L. (F,S)

BIOL 191L College Biology I/Botany Laboratory 2(0-4)
Corequisite: BIOL 191. (F,S)

BIOL 192 College Biology II/Zoology 3(3-0)
Continuation of BIOL 191. Study of structure, function, evolution, biodiversity, and ecology of vertebrates and invertebrates, including protozoans. Corequisite: BIOL 192L. (F,S)

BIOL 192L College Biology II/Zoology Laboratory 2(0-4)
Prerequisites: BIOL 191 and BIOL 191L. Corequisite: BIOL 192. (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. (F)

BIOL 206L Introduction to Microbiology Lab 1(0-3)
Corequisite: BIOL 206. (F)

BIOL 212 Introduction of Cell Biology 2(2-0)
Cell structure and function, including reproduction, metabolism, molecular biology and cell specialization. Prerequisites: BIOL 191/191L, 192/192L, CHEM 121/121L and 122/122L. Corequisite: BIOL 212L. (F,S)

BIOL 2I2L Introduction to Cell Biology Lab 1(0-2)
Corequisite: BIOL 212. (F,S)

BIOL 220 Medical Terminology 2(2-0)
Basic prefixes, word roots, combining forms and suffixes of medical terminology and human anatomy are covered, including pronunciation and patient charting. (S)

BIOL 223 Human Physiology and Anatomy I 3(3-0)
Study of human physiology and anatomy designed for students who require or desire a thorough understanding of the functional and structural aspects of the human body. Not for the majority of biology majors except Teacher Education. Topics include body orientation, physiologically important molecules, the cell, tissues, integument, skeleton, muscle, nervous system, and special senses. Prerequisites: one year of High School Biology and Chemistry (now required); or BIOL 100/100L. Corequisite: BIOL 223L. (F)

BIOL 223L Human Physiology and Anatomy I Lab 1(0-2)
Corequisite: BIOL 223. (F)

BIOL 224 Human Physiology and Anatomy II 3(3-0)
A continuation of BIOL 223. Students are permitted to enter the course before completing BIOL 223. Topics include endocrines, respiration, digestion, metabolism, excretion, fluid-electrolyte balance, cardiovascular, and reproduction. Prerequisites: one year of High School Biology and Chemistry (now required); or BIOL 100/100L. Corequisite: BIOL 224L. (S)

BIOL 224L Human Physiology and Anatomy II Lab 1(0-2)
Corequisite: BIOL 224. (S)

BIOL 291 Special Topics (1-4 VAR) (F,S,SS)

BIOL 292 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: approval of department chair. (F,S,SS)

BIOL 294 Field Experience (1-4 VAR)
Volunteer work experience under program director, department coordinator and faculty supervisor. (S/U grading) (F,S,SS)

BIOL 301 General Microbiology 3(3-0)
Introduction to the bacteria and viruses, including microbial genetics and physiology. Prerequisites: BIOL 191/191L, 192/192L, and 212/212L, and CHEM 301/301L. CHEM 302/302L and MATH 221 are strongly recommended. Corequisite: BIOL 301L. (F)

BIOL 301L General Microbiology Lab 2(0-4)
Corequisite: BIOL 301. (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. (S/O)

BIOL 302L Medical Microbiology Lab 2(0-4)
Corequisite: BIOL 302. (S/O)

BIOL 321 Comparative Vertebrate Anatomy 3(3-0)
Comparative study of developmental and functional anatomy of vertebrate animals. Prerequisites: BIOL 191 and BIOL 192, or BIOL 202 or permission of instructor. Corequisite: BIOL 324L. (S)

BIOL 321L Comparative Vertebrate Anatomy Lab 2(0-4)
Corequisite: BIOL 321. (S)

BIOL 350 Mendelian and Population Genetics 2(2-0)
Survey of basic Mendelian genetics, genetic mapping and population genetics. Prerequisites: BIOL 191/191L, BIOL 192/192L and MATH 121. Also strongly recommended MATH 156. (F,S)

BIOL 351 Molecular Biology and Genetics 2(2-0)
Study of the molecular flow of genetic information, gene regulation and cancer genetics. Prerequisites: BIOL 212/212L and either 301/301L or BIOL 350; and CHEM 121/121L and CHEM 122/122L. (F,S)

BIOL 351L Advanced Genetics and Molecular Biology Laboratory 2(0-4)
Molecular biology investigations of gene regulation and recombinant DNA. Prerequisites: BIOL 350 and CHEM 121/121L and CHEM 122/122L. Corequisite: BIOL 351. (S)

BIOL 352 Evolutionary Biology and Ecology 3(3-0)
Historical view of the theory of evolution with emphasis on the relationship between organisms and the environment, and the mechanisms and forces that produce evolutionary change. Prerequisites: BIOL 191/191L and 192/192L. BIOL 350 recommended. (S)

BIOL 378 Laboratory in Teaching Biology 1(0-2)
Laboratory preparation, safety, instruction and methods under the guidance and supervision on an instructor. Prerequisite: approval of instructor. (F,S)

BIOL 392 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: approval of department chair. (F,S,SS)

BIOL 394 Field Experience (1-4 VAR)
Volunteer work experience under program director, program coordinator, and faculty supervisor (S/U grading) (F,S,SS)

BIOL 402 Immunology 3(3-0)
Humoral and cell-mediated immunity including immune disorders and theories of immunological techniques. Prerequisites: BIOL 301/301L. (S/E)

BIOL 403 Virology 2(2-0)
Molecular aspects of viral infection of bacteria, plants, and animals including viral replication, host range, host defenses, antiviral drugs, and viral ecology. Prerequisites: BIOL 301 and 301L, or BIOL 351. (F/E)

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: CHEM 301/301L and either BIOL 301/301L or both BIOL 350 and 351. CHEM 302/302L is strongly recommended. Corequisite: BIOL 412L. (S)

BIOL 412L Cellular Biology Lab 1(0-3)
Corequisite: BIOL 412. (S)

BIOL 413 Plant Physiology 2(2-0)
Thorough examination of general physiology and function of plant body systems. Prerequisites: BIOL 191/191L, 192/192L, 212/212L, and CHEM 301/301L. Corequisite: BIOL 413L. (S/O)

BIOL 413L Plant Physiology Lab 2(0-4)
Prerequisites: BIOL 191/191L, 192/192L, 212/212L, and CHEM 301/301L. Corequisite: BIOL 413. (S/O)

BIOL 414 Vertebrate Physiology 3(3-0)
General physiology and the functions of animal and human body systems. Prerequisites: BIOL 191/191L, 192/192L, and 212/212L, and CHEM 301/301L. CHEM 302/302L and MATH 156 are strongly recommended. Corequisite: BIOL 414L. (F)

BIOL 414L Vertebrate Physiology Lab 1(0-2)
Corequisite: BIOL 414. (F)

BIOL 421 Histology 2(2-0)
A microscopic study of vertebrate tissues and organs. Prerequisites: BIOL 192/192L or BIOL 223/223L or BIOL 321/321L. Corequisite: BIOL 421L. (S/O)

BIOL 421L Histology Lab 2(0-4)
Corequisite: BIOL 421. (S/O)

BIOL 426 Plant Morphology 2(2-0)
Forms, basic structures, relationships, life histories and evolutionary trends of representatives of the major autotrophic plant groups. Prerequisites: BIOL 191/191L and 192/192L, or permission of instructor. Corequisite: BIOL 426L. (S/E)

BIOL 426L Plant Morphology Lab 1(0-2)
Corequisite: BIOL 426. (S/E)

BIOL 432 Developmental Biology 2(2-0)
Theory and principles of the development of representative vertebrate and invertebrate animals, with particular emphasis on the frog, chick, and Drosophila. Prerequisites: BIOL 212/212L, BIOL 350 and BIOL 351 or permission of instructor. Corequisite: 432L. (S/E)

BIOL 432L Developmental Biology Lab 2(0-4)
Corequisite: BIOL 432. (S/E)

BIOL 440 Molecular Genetics 2(2-0)
Molecular and Biochemical basis of heredity. Regulation of gene expression. Prerequisites: BIOL 351 and 351L, or permission of instructor. 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 191/191L and 192/192L, or permission of instructor. Corequisite: BIOL 441L. (S/O)

BIOL 441L Freshwater Invertebrate Zoology Lab 2(0-4)
Corequisite: BIOL 441. (S/O)

BIOL 443 Limnology 2(2-0)
Biology, chemistry and physics of lakes and rivers. Prerequisites: BIOL 191/191L and 192/192L, or permission of instructor. Corequisite: BIOL 443L. (S/E)

BIOL 443L Limnology Lab 2(0-4)
Corequisite: BIOL 443 (S/E)

BIOL 450 Survey of Genomics and Bioinformatics 2(2-0)
Theory and practice of genome analysis including use of statistics, databases and biomolecular sequence analysis software. Prerequisites: BIOL 351, and MATH 156 or MATH 356, or permission of instructor. (F/O)

BIOL 450L Survey of Genomics and Bioinformatics Lab 1(0-2)
Prerequisites: BIOL 351, and MATH 156 or MATH 356. Corequisite: BIOL 450. (F/O)

BIOL 452 Advanced Microscopy 2(2-0)
Theory and application of microscopy to the biological sciences. Includes preparation of cells and tissues for examination, scope, operation, and image analysis. Prerequisites: BIOL 212/L or permission of instructor. Corequisite: BIOL 452L (F/E)

BIOL 452L Advanced Microscopy Lab 2(0-4)
Corequisite: BIOL 452. (F/E)

BIOL 453 Ecology 2(2-0)
Interrelationships among organisms and their environment, employing quantitative methods and conceptual models. Prerequisites: BIOL 352 and MATH 126 or MATH 221, or permission of instructor. Corequisite: BIOL 453L. (F/E)

BIOL 453L Ecology Field Studies 2(0-4)
Corequisite: BIOL 453. (F/E)

BIOL 462 Environmental Management 3(3-0)
Scientific basis of environmental regulations applied to air/water quality, solid waste, and hazardous waste; technologies and procedures used by generators to achieve compliance. Prerequisites: BIOL 352 or permission of instructor. (S/O)

BIOL 465 Environmental Toxicology 3(3-0)
Basic principles of toxicology, interaction of xenobiotics with living organisms and the environment, and the impact of pollutants on the ecosystem. Prerequisites: BIOL 191/191L and CHEM 302/302L, or permission of instructor. (S/E)

BIOL 473 Med. Tech. Clinical Rotation I 12(5-14)
Coursework and clinical training in an affiliated medical laboratory sciences facility. Specific course of study determined by facility. Prerequisite: consent of instructor. (F)

BIOL 474 Med. Tech. Clinical Rotation II 12(5-14)
Coursework and clinical training in an affiliated medical laboratory sciences facility. Specific course of study determined by facility. Prerequisite: BIOL 473 and consent of instructor. (S)

BIOL 475 Med. Tech. Clinical Rotation III 6(3-6)
Coursework and clinical training in an affiliated medical laboratory sciences facility. Specific course of study determined by facility. Prerequisite: BIOL 474 and consent of instructor. (SS)

BIOL 479 Ichthyology 2(2-0)
The morphology, taxonomy and ecology of fishes; an introduction to fishery biology and aquaculture. Field trips are an integral part of the course. Prerequisites: BIOL 191/191L and 192/192L or permission of instructor. Corequisite: BIOL 479L. (F/O)

BIOL 479L Ichthyology Lab 1(0-2)
Corequisite: BIOL 479. (F/O)

BIOL 481 Entomology 2(2-0)
Evolutionary biology and management of insects. Impact of arthropods on the balance of nature. Medical and veterinary entomology. Arthropods as vectors of human and animal diseases. Prerequisites: BIOL 192 or permission of instructor. Corequisite: BIOL 481L. or permission of instructor. (F/O)

BIOL 481L Entomology Lab 1(0-2)
Corequisite: BIOL 481. (F/O)

BIOL 483 Mammalogy 2(2-0)
Evolution, classification and biology of mammals; practice in identifying and preparing specimens. Prerequisites: BIOL 191/191L and 192/192L or permission of instructor. Corequisite: BIOL 483L. (S/E)

BIOL 483L Mammalogy Lab 1(0-2)
Corequisite: BIOL 483. (S/E)

BIOL 484 Ornithology 2(2-0)
Classification, life history, laboratory and field identification of birds. Prerequisites: BIOL 191/191L and 192/192L or permission of instructor. Corequisite: BIOL 484L. (S/O)

BIOL 484L Ornithology Lab 1(0-2)
Corequisite: BIOL 484. (S/O)

BIOL 485 Plant Taxonomy 2(2-0)
Identification of the common vascular plant families of Colorado with an emphasis on the flowering plants; study of their systematic relationships. Prerequisites: BIOL 191/191L and 192/192L, or permission of instructor. Corequisite: BIOL 485L. (F)

BIOL 485L Plant Taxonomy Lab 2(0-4)
Corequisite: BIOL 485. (F)

BIOL 491 Special Topics (1-4 VAR) (F,S,SS)

BIOL 492 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: approval of department chair. (F,S,SS)

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. Prerequisites: senior standing and completion of all biology core courses. (F,S)

BIOL 494 Field Experience (1-4 VAR)
Volunteer work experience under program director, program coordinator and faculty supervisor. (S/U grading). (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 grading) Prerequisite: permission of department. (F,S,SS)

GRADUATE COURSES

Admission to graduate courses requires approval of the adviser for the graduate program.

BIOL 502 Immunology 3(3-0)
Humoral and cell-mediated immunity including immune disorders and theories of immunological techniques. (S/E)

BIOL 503 Virology 2(2-0)
Molecular aspects of viral infection of bacteria, plants, and animals including viral replication, host range, host defenses, antiviral drugs, and viral ecology. Prerequisites: BIOL 301/301L or BIOL 351 or permission of instructor. (F/E)

BIOL 511 Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acid and lipids. An introduction to enzymes and coenzymes. Prerequisite: one year undergraduate Organic Chemistry. (F)

BIOL 512 Cellular Biology 3(3-0)
Structural and functional organization of the cell, life cycles of cells, intracellular digestion, protein synthesis and cell death. Prerequisites: CHEM 301/301L and either BIOL 301/301L or both BIOL 350 and 351. CHEM 302/302L is strongly recommended. Corequisite: BIOL 512L. (S)

BIOL 512L Cellular Biology Lab 1(0-3)
Corequisite: BIOL 512 (S)

BIOL 513 Plant Physiology 2(2-0)
Thorough examination of general physiology and function of plant body systems. Prerequisites: BIOL 191/191L, 192/192L, 212/212L, and CHEM 301/301L. Corequisite: BIOL 513L. (S/O)

BIOL 513L Plant Physiology Lab 2(0-4)
Prerequisites: BIOL 191/191L, 192/192L, 212/212L, and CHEM 301/301L. Corequisite: BIOL 513. (S/O)

BIOL 521 Histology 2(2-0)
A microscopic study of vertebrate tissues and organs. Prerequisites: BIOL 192/192L or BIOL 223/223L or BIOL 321/321L. Corequisite: BIOL 521L. (S/O)

BIOL 521L Histology Lab 2(0-4)
Corequisite: BIOL 521. (S/O)

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/E)

BIOL 526L Plant Morphology Lab 1(0-2)
Corequisite: BIOL 526. (S/E)

BIOL 532 Developmental Biology (2-0)
Theory and principles of the development of representative vertebrate and invertebrate animals, with particular emphasis on the frog, chick, and Drosophila. Prerequisites: BIOL 212/212L, BIOL 350 and BIOL 351 or permission of instructor. Corequisite: BIOL 532L. (S/E)

BIOL 532L Developmental Biology Lab 2(0-4)
Corequisite: BIOL 532. (S/E)

BIOL 540 Molecular Genetics 2(2-0)
Molecular and biochemical basis of heredity. Regulation of gene expression. Prerequisite: BIOL 351 and 351L or permission of instructor. Corequisite: BIOL 540L. (S)

BIOL 540L Molecular Genetics Lab 1(0-2)
Corequisite: BIOL 540. (S)

BIOL 541 Freshwater Invertebrate Zoology 2(2-0)
Classification, phylogeny, systematics, morphology, physiology, and natural history of freshwater invertebrates inclusive of insects. Corequisite: BIOL 541L. (S/O)

BIOL 541L Freshwater Invertebrate Zoology Lab 2(0-4)
Corequisite: BIOL 541. (S/O)

BIOL 543 Limnology 2(2-0)
Biology, chemistry, and physics of lakes and rivers. Corequisite: BIOL 543L. (S/E)

BIOL 543L Limnology Lab 2(0-4)
Corequisite: BIOL 543. (S/E)

BIOL 550 Survey of Genomics and Bioinformatics 2(2-0)
Theory and practice of genome analysis including use of statistics, databases and biomolecular sequence analysis software. Prerequisites: BIOL 351, and MATH 156 or MATH 356 or MATH 550, or permission of instructor. (F/O)

BIOL 550L Survey of Genomics and Bioinformatics Lab 1(0-2)
Prerequisites: BIOL 351, and MATH 156 or MATH 356. Corequisite: BIOL 550. (F/O)

BIOL 552 Advanced Microscopy 2(2-0)
Theory and application of microscopy to the biological sciences. Includes preparation of cells and tissues for examination, scope operation, and image analysis. Corequisite: BIOL 552L. (F/E)

BIOL 552L Advanced Microscopy Lab 2(0-4)
Corequisite: BIOL 552. (F/E)

BIOL 553 Ecology 2(2-0)
Interrelationships among organisms and their environment, employing quantitative methods and conceptual models. Prerequisites: BIOL 352, and MATH 126 or MATH 221, or permission of instructor. Corequisite: BIOL 553L. (F/E)

BIOL 553L Ecology Field Studies 2(0-4)
Corequisite: BIOL 553. (F/E)

BIOL 562 Environmental Management 3(3-0)
Scientific basis of environmental regulations applied to air/water quality, solid waste, and hazardous waste; technologies and procedures used by generators to achieve compliance. Prerequisites: BIOL 352 or equivalent. (S/O)

BIOL 565 Environmental Toxicology 3(3-0)
Basic principles of toxicology, interaction of the xenobiotics with living organisms and the environment, and the impact of pollutants on the ecosystem. Prerequisites: BIOL 191/191L and CHEM 302/302L or permission of instructor. (S/E)

BIOL 578 Practicum in Laboratory Instruction 1(0-2)
Laboratory preparation, instruction, and methods under the guidance and supervision of a professor. May be repeated for a maximum of 4 credits. Prerequisites: graduate standing or permission of department chair. (S/U grading) (F,S)

BIOL 579 Ichthyology 2(2-0)
The morphology, taxonomy and ecology of fishes; an introduction to fishery biology and aquaculture. Field trips are an integral part of the course. Corequisite: BIOL 579. (F/O)

BIOL 579 Ichthyology Lab 1(0-2)
Corequisite: BIOL 579. (F/O)

BIOL 581 Entomology 2(2-0)
Evolutionary biology and management of insects. Impact of arthropods on the balance of nature. Medical and veterinary entomology. Arthropods as vectors of human and animal diseases. Prerequisites: BIOL 192 or permission of instructor. Corequisite: BIOL 581L or permission of instructor. (F/O)

BIOL 581L Entomology Lab 1(0-2)
Corequisite: BIOL 581. (F/O)

BIOL 583 Mammalogy 2(2-0)
Evolution, classification and biology of mammals; practice in identifying and preparing specimens. Corequisite: BIOL 583L. (S/E)

BIOL 583 Mammalogy Lab 1(0-2)
Corequisite: BIOL 583 (S/E)

BIOL 584 Ornithology 2(2-0)
Classification, life history, laboratory and field identification of birds. Corequisite: BIOL 584L. (S/O)

BIOL 584L Ornithology Lab 1(0-2)
Corequisite: BIOL 584. (S/O)

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 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 Business-Careers and Opportunities 1(1-0)
Introduction to the world of business that will provide insights on careers, business disciplines, and the world of business. (F,S)

BUSAD 160 Introduction to Computers and Information Processing 2(1-2)
Concepts and applications of computers as used by business and management. Emphasis is given to computer productivity software with hands-on exercises. (F,S)

BUSAD 161 Business Computer Applications 1(0-2)
Business computer applications for transfer students or others that do not have all software applications required in the business curriculum. Software topic tailored to student need. (F,S)

BUSAD 255 Data Management for Decision Making 3(3-0)
Research methods for business applications. Formulating research objectives, questionnaire design, reliability and validity. Use of variables, data, sampling methods and descriptive statistics. (F,S)

BUSAD 265 Inferential Statistics and Problem Solving 3(3-0)
Statistical methods in business, sampling, parameter estimation, hypothesis testing, correlation, multiple regression and chi square tests. Use of problem solving methods. Prerequisites: two years of high school math or equivalent. (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 Ethics in 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 360 Advanced Business Statistics 3(3-0)
Development of advanced statistical techniques to support business decision-making. Topics include advanced multiple regression analysis, analysis of variance and nonparametric techniques. Prerequisites: MATH 121, and BUSAD 265 or MATH 156. (F,S)

BUSAD 475 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 493 Senior Seminar 1(1-0)
Designed to help majors draw connections among the business disciplines. The course provides an in-depth examination of contemporary issues in the business environment. Prerequisite: senior standing. (F,S)

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 grading). Prerequisites: junior or senior standing in the School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

BUSAD 501 Fundamentals of Statistics 3(3-0)
This class prepares students to solve business problems using statistics and business research methods using statistical estimation, hypothesis testing, and advanced statistical methods. Prerequisites: admission to MBA. (*)

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: admission to MBA or permission of MBA Director. (*)

BUSAD 545 Advanced Quantitative Analysis for Business 3(3-0)
This class prepares students to solve business problems using advanced quantitative methods and business modeling techniques. Prerequisite: admission to MBA. (*)

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: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

BUSAD 591 Special Topics 3(3-0)
Prerequisite: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

BUSAD 599 Thesis Research (1-6 VAR) (*)

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 124. 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 124. (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 124. (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 115. (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 115. (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 316 Structural Analysis 3(3-0)
Introduction to the analysis of statically determinate and indeterminate structures. Prerequisite: ET 206 (F)

CET 401 Land Surveying 3(3-0)
Boundary control, property descriptions, deeds, subdivisions, emphasizing the legal aspects of land law and surveying. Prerequisite: CET 103 or permission of instructor. (F)

CET 404 Structural Steel Design 3(3-0)
Structural steel design of beams, columns, girders and trusses to AISC standards. Prerequisite: CET 316. (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: CET 316. (F)

CET 411 Hydraulics 3(2-2)
Study of non-compressible fluids including the flow of water in pipes and open channels. Laboratory involves measuring static pressure, head losses, and flow rates. Prerequisite: ET 202. (F)

CET 412 Hydrology 3(3-0)
Hydrologic cycle including precipitation, streamflow, ground-water runoff and the preparation of hydro graphs and frequency analysis. Prerequisite: junior standing. (S)

CET 414 Bridge Design 3(3-0)
Design of bridge slabs, beams, abutments, wingwalls, piers, and footings. Prerequisite: senior status. (*)

CET 415 Water and Sewer System Design 3(3-0)
Fundamental principles of water supply and sewage design. Prerequisite: senior status. (*)

CET 455 Senior Project Seminar 1(1-0)
Students formulate a proposal for their senior project and make written and oral presentations of the proposal. Speakers from industry present real-world examples. Prerequisite: senior standing in CET. (S/U grading) (F)

CET 456 Senior Project 3(1-4)
Practical realistic projects relating to CET discipline are selected for design, analysis, and execution. Students prepare reports and make oral presentations. Prerequisite: CET 455. (S)

CET 473 Highway Design 3(3-0)
A study of highway planning and design. Prerequisites: senior standing or approval of instructor. (S)

CET 475 Engineer-In-Training Preparation 3(3-0)
This course is designed as preparation for the state Engineer-In-Training examination. Subjects include general engineering and civil engineering topics. Prerequisites: senior standing or approval of instructor. (S)

CET 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

CET 495 Independent Study (1-3 VAR)
Directed study for students interested in specific areas of CET. Prerequisite: junior standing in CET and permission of instructor. (F,S)

CET 496 Cooperative Education Placement (1-4 VAR)
Industrial cooperative education work experience under the direction of a field supervisor and faculty member. Prerequisite: permission of instructor. (F,S,SS)

CHEMISTRY (CHEM)

UNDERGRADUATE COURSES

CHEM 101 Chemistry and Society 3(3-0)
Chemistry related to the everyday world. Drugs, food, pollution, pesticides, consumer products, energy, and home health. Principally for non-science majors. (CE,F,S)

CHEM 101L Chemistry and Society Lab 1(0-2)
Laboratory is optional. Experiments to exemplify the logical steps of problem solving and explore the physical and chemical world. Corequisite: CHEM 101. (CE,F,S)

CHEM 111 Principles of Chemistry 3(3-0)
Fundamental laws, theories and principles of chemical reactions. Credit not applicable for chemistry majors or minors. Prerequisites: satisfactory math placement score or permission of the instructor. 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 high school chemistry or equivalent, and math placement at College Algebra level or higher. Corequisite: CHEM 121L. (F,S)

CHEM 121L General Chemistry Lab I 1(0-2)
Corequisite: CHEM 121. (F,S)

CHEM 122 General Chemistry II 4(4-0)
Continuation of CHEM 121. Thermodynamics, kinetics, equilibria, nuclear chemistry, electrochemistry, acids and bases, solutions, descriptive inorganic chemistry. Prerequisite: CHEM 121. Corequisite: CHEM 122L. (F,S)

CHEM 122L General Chemistry Lab II 1(0-2)
Laboratory component to CHEM 122. Corequisite: CHEM 122. (F,S)

CHEM 150 (PHYS 150) Elementary Concepts in Physics and Chemistry 4(3-2)
Hands-on standards-based approach to understanding basic concepts of physics and chemistry. Integrated lecture, lab and discussion periods. (F,S,SS)

CHEM 160 Introduction to Forensic Science 3(3-0)
Overview of Forensic Science. Crime scene investigation. Evidence collection. Microscopy techniques. Arson analysis. Fingerprints. Serology and DNA use. Corequisite: CHEM 160L. (F,S,SS)

CHEM 160L Intro to Forensic Science Lab 1(0-2)
Overview of Forensic Science Laboratory. Evidence handling and collection. Microscopy techniques. Arson analysis, Fingerprints. DNA fingerprinting. Corequisite: CHEM 160. (F,S,SS)

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 260 Forensic Chemistry I 3(3-0)
Investigation of comparative/visual forensic analysis techniques. Topics include fingerprinting, bloodstain pattern analysis, fiber comparisons, and firearms analysis. Prerequisites: CHEM 111 or 121 and CHEM 160. (S)

CHEM 260L Forensic Chemistry I Laboratory 1(0-3)
Development of laboratory skills for comparative/visual forensic analysis. Topics include fingerprinting, bloodstain pattern analysis, fiber comparisons, and firearms analysis. A more in-depth examination of CHEM 160L topics. Prerequisites: CHEM 111 or 121 and CHEM 160L. Corequisite: CHEM 260. (S)

CHEM 291 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

CHEM 292 Research (1-3 VAR)
Faculty directed research project for undergraduate first or second-year student. May be repeated for a maximum of 3 credits total. Prerequisite: Department Chair approval. (F,S,SS)

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 Survey of Biochemistry 3(3-0)
Survey of biochemistry. For pre-health professional students. Intermediary metabolism is taught at an intermediate level and in the context of human nutrition and clinical applications. Prerequisite: CHEM 211 or CHEM 301. (F)

CHEM 317 Quantitative Analysis 3(3-0)
Volumetric and gravimetric analysis integrated with instrumental analysis, both optical and electrometric methods. Prerequisite: CHEM 122. Corequisite: CHEM 317L. (F)

CHEM 317L Quantitative Analysis Lab 2(0-6)
Corequisite: CHEM 317. (F)

CHEM 321 Physical Chemistry I 3(3-0)
Chemical thermodynamics, chemical dynamics, quantum chemistry, chemical structure and spectroscopy. Prerequisite: CHEM 122. Corequisites: MATH 224 and PHYS 201 or 221. (F)

CHEM 322 Physical Chemistry II 3(3-0)
Continuation of CHEM 321. Prerequisite: CHEM 122. Corequisites: MATH 224 and PHYS 201 or 221. (S)

CHEM 323 Experimental Physical Chemistry 2(0-4)
Laboratory techniques in thermodynamics, chemical equilibria, phase phenomena, kinetics, spectroscopy. Prerequisite: CHEM 321 or permission of instructor. (*)

CHEM 378 Practicum in Laboratory Instruction 1(0-2)
Laboratory preparation, instruction, safety, and methods under the guidance of an instructor. May be repeated for a maximum of two credits. Prerequisite: Approval of instructor. (F,S)

CHEM 389 Scientific Literature Review 1(1-0)
Surveys of both print and web-based chemical and biochemical literature. May be repeated twice. Prerequisite: CHEM 302. (F,S)

CHEM 401 Advanced Organic Chemistry 3(3-0)
Topics of advanced organic chemistry, including organic reactions, mechanisms, natural products, and spectroscopy. Prerequisite: CHEM 302, or permission of instructor. Corequisite: CHEM 401L. (*)

CHEM 401L Advanced Organic Chemistry Lab 1(0-3)
Laboratory course to accompany CHEM 401. Molecular structure determination by chemical and instrumental methods. Corequisite: CHEM 401. (*)

CHEM 403 Polymer Chemistry 3(3-0)
Study of synthetic polymers including synthesis, mechanisms of formation, structure of elucidation, reactivity, properties, and industrial application. Biopolymers also will be considered. Prerequisites: CHEM 302/302L. (*)

CHEM 411 Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acids and lipids. An introduction to enzymes and coenzymes. Prerequisite: CHEM 302, or permission of instructor. (F)

CHEM 412 Biochemistry II 3(3-0)
Continuation of CHEM 411. Intermediary metabolism of carbohydrates, lipids, and amino acids. Bioenergetics. Prerequisite: CHEM 411. Corequisite: CHEM 412L. (S)

CHEM 412L Biochemistry II Lab 2(0-6)
Prerequisite: CHEM 302. Corequisite: CHEM 412. (*)

CHEM 419 Instrumental Analysis 3(3-0)
Instrumental techniques in chemical separations, electrochemistry, atomic, and molecular spectroscopy. Prerequisites: CHEM 317 or permission of instructor. Corequisite: CHEM 419L. (S)

CHEM 419L Instrumental Analysis Lab 2(0-6)
Prerequisites: CHEM 317 or permission of instructor. Corequisite: CHEM 419. (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 460 Forensic Chemistry II 2(2-0)
Investigation of identification techniques for forensic analysis. Topics include arson, biological fluid and drug identification, and DNA analysis. Prerequisites: CHEM 260/L and CHEM 302/L or permission of instructor. Corequisite: CHEM 460L. (F)

CHEM 460L Forensic Chemistry II Lab 2(0-4)
The laboratory will accompany CHEM 460, Forensic Chemistry II lecture. Prerequisites: CHEM 260/L and CHEM 302/L or permission of instructor. Corequisite: CHEM 460. (F)

CHEM 491 Special Topics (1-5 VAR)
Prerequisite: permission of instructor. (*)

CHEM 492 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: approval of department chair. (F,S,SS)

CHEM 493 Seminar 1(1-0)
Presentation of a formal presentation on chemical research or a current topic in the chemical literature using software-based delivery methods. May be repeated once. Prerequisite: permission of department chair. (F,S)

CHEM 495 Independent Study (1-7 VAR)
Prerequisite: permission of instructor. (*)

CHEM 498 Internship (1-6 VAR)
Work experience in the chemistry discipline under the combined supervision of the selected organization and a faculty member. Prerequisite: permission of department chair. (F,S,SS)

GRADUATE COURSES

CHEM 501 Advanced Organic Chemistry 3(3-0)
Topics of advanced organic chemistry including organic reactions, mechanisms, natural products, spectroscopy, and industrial applications. Prerequisite: CHEM 302, or permission of instructor. (*)

CHEM 501L Advanced Organic Chemistry Lab 1(0-3)
Molecular structure determination by chemical and instrumental methods. Advanced synthetic techniques. Corequisite or Prerequisite: CHEM 501. (*)

CHEM 503 Polymer Chemistry 3(3-0)
Study of synthetic polymers including synthesis, mechanisms of formation, structure elucidation, reactivity, properties, and industrial application. Biopolymers also will be considered. Prerequisite: CHEM 302, or permission of instructor. (*)

CHEM 511 Biochemistry I 3(3-0)
Chemistry of constituents of living matter, including proteins, carbohydrates, nucleic acid and lipids. An introduction to enzymes and coenzymes. Prerequisite: one year undergraduate Organic Chemistry. (F)

CHEM 512 Biochemistry II 3(3-0)
Intermediary metabolism of carbohydrates, lipids and amino acids. Bioenergetics. Prerequisite: CHEM 411 or 511. (S)

CHEM 512L Biochemistry II Lab 2(0-6)
Prerequisite: CHEM 302. Corequisite: CHEM 512. (*)

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 spectro-chemical analysis, electro-chemical analysis and separations. Prerequisite: graduate standing. (*)

CHEM 531 Radiochemistry 2(2-0)
Nuclear properties, interaction and detection of radiation, kinetics of decay, application of chemistry in industry. Prerequisite: CHEM 322, or permission of instructor. (*)

CHEM 550 Industrial Chemistry 2(2-0)
The economic importance and special characteristics of the chemical industry. Feedstocks, intermediates and products of the chemical industry including thermoplastics, thermosetting plastics, paints and coatings, elastomers, fibers, surfactants, pharmaceuticals, agricultural chemicals, paper, acids, etc. Market demands, price and cost factors, scale, research, process chemistry and process control, product development. Case studies illustrating above topics. (*)

CHEM 560 Forensic Chemistry II 2(2-0)
Investigation of identification techniques for forensic analysis. Topics include arson, biological fluid and drug identification, and DNA analysis. Prerequisites: CHEM 260/L and CHEM 302/L or permission of instructor. Corequisite: CHEM 560L. (F)

CHEM 560L Forensic Chemistry II Laboratory 2(0-4)
The laboratory will accompany CHEM 560, Forensic Chemistry II lecture. Prerequisites: CHEM 260/L and CHEM 302/L or permission of instructor. Corequisite: CHEM 560. (F)

CHEM 578 Practicum in Laboratory Instruction 1(0-2)
Laboratory preparation, instruction and methods under the guidance and supervision of an instructor. May be repeated for a maximum of four credits. Prerequisites: graduate standing or approval of department chair. (S/U grading) (F,S,SS)

CHEM 591 Special Topics (1-4 VAR)
Prerequisite: permission of instructor. (*)

CHEM 595 Independent Study (1-4 VAR) (*)

CHEM 598 Graduate Internship (1-4 VAR)
Volunteer or paid work experience under the combined supervision of the selected organization and a faculty member. Prerequisite: graduate standing. (S/U grading). (F,S,SS)

CHEM 599 Thesis Research (1-6 VAR)
(IP and S/U grading). (*)

COMPUTER INFORMATION SYSTEMS (CIS)

UNDERGRADUATE COURSES

CIS 100 Introduction to Word and Windows 1(.5-1)
A competency-based course, topics include: file management, formatting, fonts, editing, reports, footnotes, desktop publishing, clip art, styles, outlines, tables, and mail merge. (F,S,SS)

CIS 103 PowerPoint and Web Publishing 1(.5-1)
An introduction to PowerPoint and FrontPage. Includes: presentation templates, charts, object embedding, slide shows, Internet search methods, web page design, web site creation and publishing. Prerequisite: CIS 100 or equivalent. (F,S,SS)

CIS 104 Excel Spreadsheets 1(.5-1)
Includes worksheet design, text and formula manipulation, charts, lists, pivot tables, ranges, lookup tables, data analysis, functions, and macros. Prerequisite: CIS 100 or equivalent. (F,S)

CIS 105 MS Access DBMS 1(.5-1)
Course includes relational database design, table creation, data manipulation, queries, forms, reports, web access, and interface design. Prerequisite: CIS 100 or equivalent. (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. Corequisite: CIS 100. (F,S)

CIS 171 Introduction to Java Programming 4(3-2)
An introduction to computer programming, design and testing using the Java object-oriented programming language. Topics include language constructs, functions, file handling, inheritance and UML. Prerequisite: CIS 100 or equivalent. (F,S,SS)

CIS 185 PC Architecture 3(2-2)
In depth study of personal computer hardware, peripherals, and interfaces. Course examines processors, disk drives, buses, video cards, memory and diagnostic software. Corequisite: CIS 150. (F,S)

CIS 215 Unix Operating System 3(3-0)
Explore UNIX features, covering command language, file system, mail, and editing. Shell language tools include pipes, filters and I/O redirection. Prerequisite: CIS 171. (F,S)

CIS 240 Object Oriented Analysis and Design 3(3-0)
Practical methods for analyzing business problems and designing large-scale software solutions using object oriented techniques, tools, methodologies, with in-depth focus on the Unified Modeling Language. Prerequisite: CIS 171. (F,S)

CIS 271 Advanced Program Design with Java 4(3-2)
Continuation of CIS 171, includes advanced Java programming constructs such as data structures, multi-threading, collections, database connectivity, remote objects and GUI's. Prerequisite: CIS 171 or equivalent. (F,S)

CIS 289 Network Concepts 3(2-2)
Fundamental hardware, software, and data communication concepts necessary to understand computer networks. Prerequisite: CIS 185. Corequisite: CIS 215. (F,S)

CIS 290 Special Projects (1-5 VAR)
Individual projects designed to extend student knowledge beyond offerings in the current curriculum. Examples include program, database, Web site or network research or development. Prerequisite: sophomore standing and permission of instructor. (F,S,SS)

CIS 291 Special Topics (1-5 VAR)
Study of new and emerging topics and technologies in the computing field. May be repeated for credit. Prerequisite: sophomore standing.

CIS 296 Cooperative Education Placement (1-5 VAR)
Industrial cooperative education work experience under the direction of a field supervisor and faculty member. Prerequisite: freshman or sophomore standing. (F,S,SS)

CIS 311 Introduction to Web Development 3(3-0)
An introduction to web site design and implementation using HTML, JavaScript, XML and other state of the art web development tools and languages. Prerequisite: CIS 171. (F,S)

CIS 316 Operating Systems Design 3(3-0)
Theory and design of supervisors, concepts of job tasks and data management, scheduling, queuing, multi-programming site management. Prerequisites: junior standing. (SS)

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. Prerequisites: CIS 240 or permission of instructor. (F,S)

CIS 356 XML Programming 3(3-0)
eXtensible Markup Language (XML) is the new standard for information exchange. Study the emergence, current technical specification, potential business advantages and future evolution of XML. Prerequisite: CIS 311. (F)

CIS 359 Advanced Programming with C# 3(3-0)
Design and develop desktop and web-based applications using C# and .NET. Emphasis on advanced programming concepts and technique. Prerequisite: CIS 171. (S)

CIS 360 Information Technology Security 3(2-2)
Applied course emphasizing: need for security, planning, cryptography, physical, email, web, wireless, and security technologies. Develops skills needed for CompTIA Security+ certification. Prerequisite: CIS 289. (F,S)

CIS 401 Network Systems Administration 3(2-2)
Concepts and skills necessary to function as network system supervisor in both Microsoft and a Novell networking environment. Prerequisite: CIS 289. (S)

CIS 402 Linux Networks and Routing 3(2-2)
Examination and practice of the concepts and skill necessary to function as a system administrator in a Linux environment. Basic concepts of network routing. 0Prerequisites: CIS 215, CIS 289. (F)

CIS 411 Internet Server-Side Programming 4(4-0)
Server based web programming and scripting. Includes data base access methods, open source tools, and web application construction from the server side. Prerequisites: CIS 311, CIS 350. (S)

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. Prerequisites: all required CIS classes, MGMT 368. Corequisite: graduating semester or consent of instructor. (F,S)

CIS 450 Advanced Database Structures 4(3-2)
An advanced study of database technology, design and administration. Students will complete labs and projects, preparing them to sit for the Oracle DBA certification exam. Prerequisite: CIS 350, or permission of instructor. (S)

CIS 461 IT Security Management 3(3-0)
Students learn to assess, design, develop, and implement information security programs for organizations. Covers on-going management of security programs. Prerequisite: MGMT 201. (S)

CIS 462 Computer Forensics 3(2-2)
Focus on the detection, isolation and response to information security breaches and attacks. Provides a detailed examination of the entire computer forensic process. Prerequisite: CIS 289. (F)

CIS 481 Information Technology Implementation 3(3-0)
Prepares information systems workers and other professionals to address the complex issues and dynamics surrounding technology-driven change in organizations that introduce new technology. Prerequisites: senior standing; consent of instructor. (S)

CIS 482 Information Technology Strategy 3(3-0)
Prepares information systems workers and other professionals to develop an IT strategy that aligns business strategy with IT infrastructure; emphasis on IT for competitive advantage. Prerequisites: senior standing; consent of instructor. (F)

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 Senior 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. Prerequisites: all required CIS classes. Corequisite: graduating semester or consent of instructor. (S/U grading) (F,S)

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)

GRADUATE COURSES

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 532 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. Prerequisites: all required CIS classes, MGMT 368. (F,S)

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. Prerequisites: CIS 240 or MGMT 365 or MGMT 565 or permission of instructor. (F)

CIS 560 Information Technology Security 3(2-2)
Applied course emphasizing: need for security, planning, cryptography, physical, email, web, wireless, and security technologies. Develops skills needed for CompTIA Security+ certification. Prerequisite: CIS 289 or consent of instructor. (F,S)

CIS 561 IT Security Management 3(3-0)
Students learn to assess, design, develop, and implement information security programs for organizations. Covers on-going management of security programs. Prerequisite: any Introduction to Management course. (S)

CIS 562 Computer Forensics 3(2-2)
Focus on the detection, isolation and response to information security breaches and attacks. Provides a detailed examination of the entire computer forensic process. Prerequisite: consent of instructor. (F)

CIS 581 Information Technology Implementation 3(3-0)
Prepares information systems workers and other professionals to address the complex issues and dynamics surrounding technology-driven change in organizations that introduce new technology. Prerequisite: graduate standing. (S)

CIS 582 Information Technology Strategy 3(3-0)
Prepares information systems workers and other professionals to develop an IT strategy that aligns business strategy with IT infrastructure; emphasis on IT for competitive advantage. Prerequisite: graduate standing. (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)

CHICANO STUDIES (CS)

UNDERGRADUATE COURSES

CS 101 Introduction to Chicano Studies 3(3-0)
Overview of the historical, political and socio-cultural experience of the Chicano. (F,S,SS)

CS 136 (HIST 136) The Southwest United States 3(3-0)
This course traces the culture and historical development of the southwestern United States, including cultural contributions of the American Indian and Hispanic peoples. (*)

CS 220 (ENG 220) Survey of Chicano Literature 3(3-0)
Survey of outstanding contemporary Chicano works. Literature deals with Chicano themes, including analysis of folklore and myth. (S)

CS 230 (SW 230) Chicano: Social and Psychological Study 3(3-0)
Social and psychological forces faced in the Chicano community. (F)

CS 240 (WS 240) Chicana Writers 3(3-0)
Survey of Chicana writers from the early 1900's to the present. Along with the literature, aspects of history, sociology and politics will be incorporated. (*)

CS 246 (HIST 246) History of Mexico 3(3-0)
This course surveys the major political, economic, social and cultural developments of Mexico from pre-Columbian times to the present. (*)

CS 291 Special Topics (1-3 VAR)
Topics in Chicano studies, identified by student/faculty interest. Prior work in Chicano studies desirable. (*)

CS 303 Chicano Labor History in the United States 3(3-0)
Chicano experience in the American labor market from 1848 to present. (*)

CS 306 (WS 306) La Chicana 3(3-0)
A social cultural and historical overview of the Chicana experience and contributions. (F,S)

CS 325 (SW 325) Health in the Chicano Community 3(3-0)
Health care traditions and current health care systems in the barrio. (S)

CS 401 (WS 401) Third World Feminisms 3(3-0)
This course focuses on Third World women's challenging views of global feminism and feminist representations of other women. (*)

CS 489 (HIST 489) Borderlands 3(3-0)
History of the Mexican cession to the U.S. from its Indian and Hispanic origins to the present. Prerequisite: CS/HIST 136 or HIST 211 or HIST 201 or HIST 202, or permission of instructor. (*)

CS 491 Special Topics (1-3 VAR)
Topics in Chicano Studies, identified by student/faculty interest. Prior work in Chicano Studies desirable. (*)

CS 493 Seminar (1-3 VAR)
Various problems within the realm of Chicano studies; in-depth, integrated approach. Prerequisite: CS 101. (S)

CS 495 Independent Study (1-3 VAR)
Special topics dealing with the Chicano and society. Prerequisite: CS 101. (F,S,SS)

ECONOMICS (ECON)

UNDERGRADUATE COURSES

ECON 201 Principles of Macroeconomics 3(3-0)
Applications oriented approach to understanding the economy including monetary policy, deficits and surpluses, international issues; fundamental differences between liberal and conservative economic policies. Prerequisite: MATH 109 or MATH 121 or permission of instructor for non-business majors. (F,S)

ECON 202 Principles of Microeconomics 3(3-0)
Illustrates how firms make price, wage and profit maximizing decisions. Other topics include market performance, market failure, environmental issues and government intervention. Prerequisite: MATH 121 or permission of instructor for non-business majors. (F,S)

ECON 301 Intermediate Macroeconomics 3(3-0)
In-depth study of macroeconomic models including classical, Keynesian, monetarist, new classical and new Keynesian systems. Evaluates applications of monetary and fiscal policies in different models. Prerequisites: ECON 201, 202, and MATH 221. (F)

ECON 302 Intermediate Microeconomics 3(3-0)
In-depth study of microeconomic theories of production and consumption. Emphasis on strategic behavior and decision making under uncertain conditions. Prerequisites: ECON 201, 202, and MATH 221. (S)

ECON 308 Economics for Managers 3(3-0)
Advanced study of economic concepts for managerial decision-making. Topics covered include demand estimation and elasticity, cost estimation, macroeconomic indicators, and the Federal Reserve system. Prerequisites: ECON 201, 202, and MATH 221. (F,S)

ECON 310 Money and Banking 3(3-0)
Topics include behavior of interest rates, money supply process and theory of central banking, determinants of exchange rates and current issues of international financial system. Prerequisites: ECON 201, 202, and MATH 221. (*)

ECON 330 Public Finance 3(3-0)
Principles and issues of government revenue and expenditure policies. Prerequisite: ECON 201, 202, and MATH 221. (*)

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. Prerequisites: ECON 201, 202, and MATH 221. (*)

ECON 420 Regional Economic Analysis 3(3-0)
Applies regional economic concepts to real-world projects. Develops skills in accessing a community's trade area, trade relations between communities and sources of local employment growth. Prerequisites: ECON 201, 202, and MATH 221. (*)

ECON 475 International Economics 3(3-0)
International trade and finance theory. Topics include trade protectionism, regional alliances, role of international organizations, economic development, exchange rate determination and balance of payments. Prerequisites: ECON 201, 202, and MATH 221. (*)

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 grading) (*)

GRADUATE COURSES

ECON 501 Fundamentals of Economics 1.5(1.5-0)
This class prepares students to understand the market economy and forces that affect prices of goods and services, prices of resources and profit maximizing decisions. Prerequisite: admission to MBA. (*)

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: admission to MBA or permission of MBA Director. (*)

ECON 575 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 202 and admission to MBA. (*)

ECON 591 Special Topics 3(3-0)
Prerequisite: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

ECON 598 Internship (1-3 VAR)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: admission to MBA or permission of MBA Director. (S/U grading) (*)

EDUCATION (ED)

UNDERGRADUATE COURSES

ED 102 Teaching as a Career 1(1-1)
Orientation to teaching and teacher education. Class sessions and classroom observation required. Not required for teacher certification. (F,S)

ED 202 Foundation of Education 3(3-0)
Historical, philosophical and sociological dimensions of education including legal and financial challenges associated with the institution of education. (F,S,SS)

ED 210 Human Growth and Development for Educators 3(3-0)
Physical, mental, social and emotional growth of the individual; provides teachers with needed perspectives on elementary and secondary school students. (F,S,SS)

ED 280 Educational Media and Technology 3(3-0)
Prepares teachers to use technology for instruction, assessment, management, and research. (F,S,SS)

ED 301 Frameworks of Teaching 3(3-0)
Includes approaches to designing learner-centered classroom communities through applications of standards-based instruction, effective planning and assessment, and classroom management; 30 hours of field experience. Prerequisites: completion of 45 credit hours and 2.6 cumulative GPA. (F,S)

ED 325 Early Field Experience with the Atypical Learner (1-3 VAR)
Development and implementation of principles in teaching atypical learners in a tutorial situation. Prerequisite: admission to Teacher Education Program. (*)

ED 380 Integrated Methods in Elementary 3(3-0)
Prepares elementary teachers to integrate the expressive arts and physical education into the elementary curriculum; 30 hours of field experience. Prerequisites: acceptance into the Teacher Education Program, ART 100 and MUS 118. (F,S)

ED 400 Workshop (1-3 VAR)
Designed for special activity-oriented experiences to be conducted in short sessions. Each workshop has a subtitle and no subtitle may be repeated for credit. Prerequisite: acceptance to the Teacher Education Program or permission of instructor. (*)

ED 412 Teaching Diverse Learners 3(3-0)
Focuses on legislation for special education, nature of exceptionalities, and meeting the needs of K-12 students, including second language learners; 30 hours field experiences. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 413 Teaching Social Studies 3(3-0)
Methods of teaching social studies in the elementary school. Part of elementary field experience block. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 414 Teaching Elementary Science and Health 2(1.5-1.5)
Methods of teaching health and science in the elementary school. Part of elementary field experience block. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 417 Teaching Mathematics in Elementary School 2(1.5-1.5)
The scope and sequence of elementary school mathematics are examined. Instructional methods are considered in terms of both the content and the cognitive developmental rates and other individual differences of children. Prerequisites: MATH 361 and acceptance into the Teacher Education Program. (F,S)

ED 420 Microcomputer Applications in Education 2(1-2)
Current microcomputer application in the classroom and principles of educational software. Prerequisite: acceptance into the Teacher Education Program. (*)

ED 421 Classroom Integration of Internet 2(2-0)
Methods to effectively and legally integrate the Internet into the classroom as a communication and instructional tool. Prerequisites: ED 280, admission to Education. (F,S)

ED 423 Teaching and Managing Technology 2(2-0)
Strategies, processes, and procedures for managing technology in K-12, including efficient use of emerging pedagogies. Field experience required. Prerequisites: ED 280, admission to Education. (F,S)

ED 427 Productivity Tools for Classroom 1(1-0)
Applications of Microsoft Office as a productivity tool, including integration of use in classroom. Field experience required. Prerequisites: ED 280, admission to Education. (F,S)

ED 428 Integration of Educational Software 1(1-0)
Familiarity with and criteria for selecting evaluating, and using quality educational software. Field experience required. Prerequisites: ED 280, admission to Education. (F,S)

ED 429 Literacy & Technology 2(2-0)
Methods for using technology to assess and teach literacy. Prerequisites: ED 280, admission to Education. (F,S)

ED 431 Diverse Learners & Technology 3(3-0)
Strategies for using technology to enhance learning for all students, with emphasis on the relationship between technology and equity. Field experience required. Prerequisites: ED 280, admission to Education. (F,S)

ED 432 Hardware & Networking for Educators 3(3-0)
Pedagogical and practical considerations in using networking and hardware in schools. Prerequisite: ED 280. (SS)

ED 433 Instructional Theory & Tech Design 3(3-0)
Instructional system design theories and models and their adaptation to plan and use technology effectively in the classroom. Field experience required. Prerequisites: ED 280, admission to Education. (F,S)

ED 434 Multimedia Design 3(3-0)
Methods and tools for creating multimedia learning objects for K-12 classrooms. Field experience required. Prerequisites: ED 280, admission to Education. (SS)

ED 435 Classroom Management 3(2-3)
Includes general teaching methods and strategies, learning theories applied to teaching discipline, curriculum educational measurement and evaluation, school organization and school law applicable to classroom teachers. Field experience required. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 440 Teaching Secondary Science (Bio/Chem) I 3(2-2)
Familiarization with the Colorado Science Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. (*30 hrs/semester field experience required.) Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 441 Teaching Secondary Science (Phy/E Sci) II 3(2-2)
Familiarization with the Colorado Science Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. (*30 hrs/semester field experience required.) Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 442 Teaching Social Studies in Middle School 3(2-2)
Familiarization with the Colorado Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program. (*30 hrs/semester field experience required.) (F)

ED 443 Teaching Social Studies in High School 3(2-2)
Familiarization with the Colorado Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program. (*30 hrs/semester field experience required.) (S)

ED 444 Teaching Secondary Science 4(3-2)
Focuses on teaching methods, materials, and assessment strategies necessary to prepare students to teach in secondary standards-based science classrooms; 60 hours of field experience. Prerequisite: Acceptance into the Teacher Education Program. (F)

ED 445 Applied Educational Assessment and Instruction K-12 2(2-0)
Familiarization with concepts and issues in K-12 educational assessment including planning, constructing, analyzing and applying assessment principles in a standards based curriculum. Prerequisite: acceptance into the Teacher Education Program. (F,S,SS)

ED 446 Teaching K-12 Art 4(3-2)
Focuses on art curriculum, methods, and assessment to prepare art educators to successfully teach in K-12 standards-based art classrooms; 60 hours of field experience. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 447 Teaching English in Secondary Schools 4(3-2)
Familiarizes students with Colorado foreign language standards, standards-based lesson and unit planning, and authentic assessment; 60 hours of field experiences. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 448 Teaching Foreign Language (K-12) 4(3-2)
Familiarizes students with Colorado foreign language standards, standards-based lesson and unit planning, and authentic assessment; 60 hours of field experiences. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 449 Teaching Choral Music (K-12) 3(2-2)
Familiarization with the Colorado Music Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program, MUS 144, 145, 186, 241, 242, and 246. (F,S) (*30 hrs/semester field experience required)

ED 450 Teaching Instrumental Music (K-12) 3(2-2)
Familiarization with the Colorado Music Content Standards. Standards based lesson and unit planning strategies and authentic assessment will be discussed, and demonstrated. Prerequisite: acceptance into the Teacher Education Program, MUS 144, 145, 186, 241, 242, and 246. (*30 hrs/semester field experience required) (F,S)

ED 451 Teaching Secondary Social Studies 4(3-2)
Familiarizes students with the Colorado content standards, including standards-based lesson and unit planning strategies and authentic assessment; 30 hours of field experiences. Prerequisite: acceptance into the Teacher Education Program. (F)

ED 461 Atypical Students in the Secondary School 3(2-2)
Individual differences as they affect the learning process. Instructional alternatives for meeting individual needs including handicapped and gifted. Emphasis on main streamed students. Field experience required. Prerequisite: acceptance into the Teacher Education Program. (F,S)

ED 481 Practicum & Seminar in Education (3-6 VAR)
Supervised practicum and seminar in second teaching or endorsement area. Prerequisite: admission to Education. (F,S,SS)

ED 485 Capstone Seminar in Education 2(2-0)
Explores substantive issues facing teacher, including meeting the needs of at-risk students; creating inclusive, equitable learning communities, and methods of effective inquiry in education. Prerequisite: acceptance into the Teacher Education Program and enrollment in student teaching. (F,S)

ED 487 Student Teaching Elementary (6, 12 VAR)
Elementary level. Application must be submitted on or before date in the *Teacher Education Handbook* prior to the semester in which student teaching will commence. Prerequisite: approved application for student teaching. (F,S)

ED 488 Student Teaching Secondary (6, 12 VAR)
Secondary level. Application must be submitted on or before date in the *Teacher Education Handbook* prior to the semester in which student teaching will commence Prerequisite: approved application for student teaching. (F,S)

ED 489 Student Teaching K-12 (6, 12 VAR)
K-12 level. Application must be submitted on or before date in the *Teacher Education Handbook* prior to the semester in which student teaching will commence. Prerequisite: approved application for student teaching. (F,S)

ED 491 Special Topics (1-3 VAR) (*)

ED 494 Field Experience (1,3,5,10 VAR)
Field experience in an educational setting. Not applicable to teacher certification (S/U grading). (*)

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 Diverse Learners 3(3-0)
Focuses on legislation for special education, nature of exceptionalities, and meeting the needs of K-12 students, including second language learners; 30 hours field experiences. Prerequisites: graduate standing plus PSYCH 351 or ED 555. (F,S)

ED 514 Teaching K-6 Math and Science 3(3-0)
Focuses on teaching methods, materials, and assessment strategies in math and science in the elementary school. Prerequisite: graduate standing (*)

ED 520 Educational Media and Technology 3(3-0)
Prepares teachers to use technology for instruction, assessment, management, and research. Prerequisite: graduate standing. (F,S,SS)

ED 521 Classroom Integration of Internet 2(2-0)
Methods to effectively and legally integrate the Internet into the classroom as a communication and instructional tool. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor approval, graduate standing. (F,S)

ED 522 Issues in Education 2(2-0)
Contemporary problems in education, their historical development and philosophical implications. Prerequisite: graduate standing. (*)

ED 523 Teaching and Managing Technology 2(2-0)
Strategies, processes, and procedures for managing technology in K-12, including efficient use of emerging pedagogies. Field experience required. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor approval, graduate standing. (F,S)

ED 524 Advanced Techniques of Teaching Elementary Social Studies 2(2-0)
Analysis of techniques for conceptual approaches to teaching socialization skills, critical thinking and inquiry skills; and helping children develop healthy attitudes and values. Prerequisite: graduate standing. (*)

ED 525 Advanced Techniques of Teaching Elementary Science and Health 2(2-0)
Emphasis on the newest concepts, techniques and materials for teaching elementary school science and health. Prerequisite: graduate standing. (*)

ED 526 School Health Curriculum 2(2-0)
Training (by grade level) in the use of by "Growing Healthy" -the Primary Grades Health Curriculum Project and the School Health Curriculum Project. This is lateral spread training only, by agreement with the Rocky Mountain Regional Training Center. Prerequisite: graduate standing. (*)

ED 527 Productivity Tools for Classroom 1(1-0)
Applications of Microsoft Office as a productivity tool, including integration of use in classroom. Field experience required. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor approval, graduate standing. (F,S)

ED 528 Integration of Educational Software 1(1-0)
Familiarity with and criteria for selecting evaluating, and using quality educational software. Field experience required. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor approval, graduate standing. (F,S)

ED 529 Literacy & Technology 2(2-0)
Methods for using technology to assess and teach literacy. Field experience required. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor approval, graduate standing. (F,S)

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 531 Diverse Learners & Technology 3(3-0)
Strategies for using technology to enhance learning for all students, with emphasis on the relationship between technology and equity. Field experience required. Prerequisites; ED 280/520, admission to Education, completion of a teaching program, or instructor permission, graduate standing. (F,S)

ED 532 Hardware & Networking for Educators 3(3-0)
Pedagogical and practical considerations in using networking and hardware in schools. Prerequisites: ED 280/520, graduate standing. (SS)

ED 533 Instructional Theory & Tech Design 3(3-0)
Instructional system design theories and models and their adaptation to plan and use technology effectively in the classroom. Field experience required. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor permission, graduate standing. (F,S)

ED 534 Multimedia Design 3(3-0)
Methods and tools for creating multimedia learning objects for K-12 classrooms. Field experience required. Prerequisites: ED 280/520, admission to Education, completion of a teaching program, or instructor approval, graduate standing. (SS)

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 544 Teaching Secondary Science 3(3-0)
Focuses on teaching methods, materials, and assessment strategies necessary to prepare students to teach in secondary standards-based science classrooms. Prerequisite: graduate standing. (F)

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 546 Teaching K-12 Art 3(3-0)
Focuses on Art curriculum, methods, and assessment to prepare art educators to successfully teach in K-12 standards-based art classrooms. Prerequisite: graduate standing. (F)

ED 547 Teaching English in Secondary Schools 3(3-0)
Familiarizes students with Colorado Language Arts Standards, standards-based lesson and unit planning and authentic assessment. Prerequisite: graduate standing. (F)

ED 548 Teaching Foreign Language 3(3-0)
Familiarizes students with Colorado Foreign Language Standards, standards-based lesson and unit planning and authentic assessment. Prerequisite: graduate standing. (F)

ED 550 K-12 Music Methods 3(3-0)
Familiarization with the Colorado Music Content Standards. Standards based lesson and unit planning and strategies for general, instrumental, and vocal music will be emphasized. Prerequisite: graduate standing. (F)

ED 551 Teaching Secondary Social Studies 3(3-0)
Familiarizes students with Colorado Social Studies Content Standards, standards-based lesson and unit planning strategies and authentic assessment. Prerequisite: graduate standing. (F)

ED 555 Foundations of Learning Disorders 3(3-0)
Exceptionalities: emphasis on high-incidence handicaps. Includes recent legislation and identification, referral, staffing and placement procedures. Major intervention strategies examined. Prerequisite: graduate standing. (*)

ED 560 Professional Development in Curriculum and Instruction (1-3 VAR)
Stresses skill-building in classroom instruction, including curriculum development and student assessment. Current innovations in public education are also addressed. Prerequisite: graduate standing. (*)

ED 561 Atypical Students in the Secondary School 3(2-2)
Individual differences as they affect the learning process. Instructional alternatives for meeting individual needs including handicapped and gifted. Emphasis on mainstreamed students. Graduate project required. Prerequisites: graduate standing plus PSYCH 351 or ED 555. (F,S)

ED 580 Integrated Methods 3(3-0)
Prepares elementary teachers to teach Social Studies, with emphasis on integration of the expressive arts and PE. Prerequisite: graduate standing. (*)

ED 581 Practicum & Seminar in Education (3-6 VAR)
Supervised practicum and seminar in second teaching or endorsement area. Prerequisites: admission to Education, graduate standing. (F,S,SS)

ED 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

ED 592 Research (1-3 VAR)
Prerequisites: graduate standing and permission of graduate adviser. (*)

ED 593 Seminar 3(3-0)
Prerequisite: graduate standing. (*)

ED 594 Field Experience (1-3 VAR)
Field experience in an educational setting. Prerequisite: graduate standing. (F,S,SS)

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. Prerequisite: High school physics. (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)

ENGINEERING (EN)

UNDERGRADUATE COURSES

EN 101 Problem Solving for Engineers 3(2-2)
Writing computer programs to solve real-world problems in engineering and science. Prerequisite: equivalent of 2 years of high school algebra. (F)

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 107 Engineering Graphics 2(1-2)
Introduction to the preparation of engineering drawings using freehand sketching and computer graphics software. (S)

EN 187 Success in Engineering and Science 1(1-0)
Introduction to study skills needed to succeed in engineering and science classes and to careers in engineering and science. (SS)

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). Prerequisites: PHYS 221 and EN 101 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 215 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: pre-completion of Quantitative Skills Component. (F)

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 260 Basic Electronics 2(2-0)
Characteristics, operation, and basic circuits of solid-state devices. Operational amplifiers with typical applications are also introduced. Prerequisites: EN 101, EN 231. (S)

EN 263 Electromechanical Devices 3(3-0)
DC and AC motors and generators, transformers, stepper motors, servomotors and various sensors: theory, device characteristics, applications and controls. Prerequisites: EN 101, EN 231. Corequisites: EN 212, EN 260. (S)

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 292 Research (1-6 VAR)
Research closely supervised by a faculty member with regular meetings. (*)

EN 295 Independent Study (1-5 VAR)
Intensive study directed by a faculty member. (*)

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 298 Internship (1-6 VAR)
Field work in a company or organization, with written reports. (S/U grading) (*)

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 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 Material Science and Engineering 3(3-0)
Material properties, deformations under force, stress-strain relationships, selection of materials. Prerequisite: EN 211. Corequisite: EN 324L. (S)

EN 324L Material Science and Engineering Lab 1(0-2)
Measurements of material properties and stress-strain relationships. 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 343 Engineering Economy 3(3-0)
Modeling, analysis and decision making involving time value of money, depreciation, income taxes and replacement analysis. Prerequisite: college algebra. (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 360 Control Systems I 3(2-2)
Linear analog control systems theory is introduced. Open and closed-loop systems are examined, and performance characteristics are analyzed. Prerequisites: EN 260, MATH 337. (S)

EN 361 Digital Electronics 4(3-2)
Introduction to digital technology emphasizing practical microprocessors. Number systems and codes, truth tables, Boolean functions, combinational and sequential logic, registers, counters, memory devices, and microprocessors. Prerequisite: EN 260. (F)

EN 362 Introduction to Mechatronics 3(2-2)
Elements of a mechatronics system: signal conditioning, sensors, actuators, microcontrollers, and software. Prerequisites: EN 212, EN 260, EN 263. (F)

EN 363 Virtual Machine Design 3(2-2)
Computer aided design of machines including mechanical components: shaft systems, power transmission, and motion generation. Prerequisites: PHYS 221, EN 101, EN 211, EN 324, EN 362. (S)

EN 365 Stochastic Systems Engineering 4(4-0)
Probability modeling and statistical analysis of industrial engineering systems containing elements of uncertainty. Prerequisite: MATH 126. (F)

EN 420 Simulation Experiments 4(3-2)
Design and statistical analysis of experiments using discrete event simulation models. Prerequisite: EN 365. (S)

EN 421 Structural Analysis 3(3-0)
Analysis if indeterminate beams, frames and trusses by methods of moment of distribution, slope deflection, real work, virtual work and least work. Prerequisite: EN 324. (*)

EN 430 Project Planning and Control 3(3-0)
Engineering project management including project selection, organization, planning, and budgeting. Project evaluation, tracking and control, and scheduling and resource allocation, including PERT and CPM. Prerequisite: EN 365. (F)

EN 435 Microprocessor Control Systems 3(2-2)
Components of a microprocessor control system, digital processing, survey of state-of-the-art micro-processor 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 439 Time and Motion Studies 2(1-2)
Principles and techniques of methods analysis and work measurement, human performance in human-machine systems. Corequisite: EN 215, EN 365. (F)

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 343 and 439. (S)

EN 441 Engineering of Manufacturing Processes 4(3-2)
Materials and processes for manufacturing including machining, casting, and forming processes: design, modeling and control. Prerequisite: EN 212. (S)

EN 442 Manufacturing Processes II 3(3-0)
Materials and processes for manufacturing including sheet metal forming, welding, machining and advanced manufacturing processes. Prerequisites: EN 342. (*)

EN 443 Quality Control and Reliability 3(3-0)
Principles and methods of quality control and improvement. Quality management strategy: design and implementation of quality programs in organizations, problem solving techniques, quality improvement tools, etc. Statistical quality control: control charts, process capability evaluation, acceptance sampling procedures, etc. Prerequisite: EN 365. (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 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 224. (F)

EN 473 Computer Integrated Manufacturing 3(2-2)
Engineering design, modeling and applications in production: automation, flowlines, robotics, numerical control, and computer usage in manufacturing. Prerequisites: EN 101, 231, 231L, and 441. (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. Corequisite: EN 471. (F)

EN 477 Operations Planning and Control 3(3-0)
Techniques for analysis and management of manufacturing operations and production with emphasis on inventory systems and forecasting. Prerequisite: EN 471 or permission of instructor. (S)

EN 487 Career Success in Engineering 1(1-0)
Topics related to identifying an appropriate career path, finding a job, and planning for graduate school. (F,S)

EN 488 Engineering Design Projects 3(3-0)
Application of engineering principles to a design project. Prerequisites: EN 493. (F,S)

EN 491 Special Topics (1-5 VAR)
Prerequisite: junior standing. (*)

EN 492 Research (1-6 VAR)
Faculty directed research project. Prerequisites: junior or senior standing. (*)

EN 493 Senior Seminar 2(2-0)
Steps in the engineering design process including creativity, technical analysis, and presentations. Prepare for senior project. Prerequisites: senior standing and permission of instructor. (S/U grading) (F,S)

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)

EN 498 Internship (1-6 VAR)
Field work in a company or organization, with written reports. Prerequisites: junior or senior standing. (S/U grading) (*)

GRADUATE COURSES

EN 500 Logistics, Maintainability and Life-cycle Support 3(3-0)
Application of management systems analysis to problems of system maintainability and maintenance. Models of repair and failure, wear-out processes, maintenance and inspection policies and spare parts policies. Prerequisite: graduate standing. (*)

EN 501 Software Systems Engineering 3(3-0)
Software systems development and life cycles to include applications development stratagem, system development life cycle and phases, system development management, group dynamics in the development process, user requirements determination, and analysis and logical specification of the system. Cost forecasting of the engineering design through modeling. Prerequisite: graduate standing. (*)

EN 503 Ergonomics 3(3-0)
Theory and practice of human performance measurement and human factors engineering. Study of human sensory, perceptual mental, psychomotor, and other characteristics applied to the design of human-machine systems for performance effectiveness, productivity and safety. Prerequisite: graduate standing. (F)

EN 504 Scheduling and Sequencing 3(3-0)
Theory of determining scheduling and sequencing with stochastic extensions. An introduction to the complexity of computations in systems varying from single machine to job shop. Prerequisite: EN 571 or permission of instructor. (S)

EN 520 Simulation Experiments 4(3-2)
Design and statistical analysis of experiments using discrete event simulation models. Prerequisites: EN 365 and graduate standing. (S)

EN 530 Project Planning and Control 3(3-0)
Engineering project management including project selection, organization, planning, and budgeting. Project evaluation, tracking and control, and scheduling and resource allocation, including 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. Prerequisites: MATH 224 and graduate standing. (F)

EN 575 Facility Planning and Design 3(3-0)
Application of industrial and systems engineering techniques to problems related to an organization's physical resources. Facilities planning, plant layout, material handling, site selection and location. Corequisite: EN 571. (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. Prerequisite: EN 571 or permission of instructor. (S)

EN 587 Career Success in Engineering 1(1-0)
Topics related to identifying an appropriate career path, finding a job, and planning for graduate school. (F,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 595 Independent Study (1-5 VAR)
Prerequisite: graduate standing. (*)

EN 598 Internship (1-6 VAR)
Field work in a company or organization, with written reports. (S/U grading) (*)

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)

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 grading) Does not count toward graduation.

ENG 100 English as a Second Language (3-12 VAR)
Intensive practice in English Language skills with an emphasis on writing for non-native speakers of English. (*)

ENG 101 Composition I 3(3-0)
Beginning course in expository writing, emphasizing skills of written expression, organization, and presentation. Prerequisites: ENG 099 or a passing score on the CSU-Pueblo Writing Assessment. (F,S,SS)

ENG 102 Composition II 3(3-0)
Sequential course to provide intensive consideration of essay development and to introduce procedures and techniques in preparing the referenced paper. Prerequisite: ENG 101. (F,S,SS)

ENG 106 (ANTHR 106) Language, Thought and Culture 3(3-0)
Cross-cultural introduction to language processes in human society. (F*)

ENG 111 Intro to American Academic Discourse 3(3-0)
Practical introduction to American academic discourse and culture for international students, stressing oral and written discussion skills. (*)

ENG 114 Introduction to Creative Writing 3(3-0)
An introduction to poetry, fiction, and creative non-fiction writing, stressing honest and clear writing and heightened critical thinking skills within a workshop setting. (F)

ENG 130 Introduction to Literature 3(3-0)
Introduction to the three major literary genres: fiction, poetry, and drama. The main emphasis is on close reading and textual analysis. (*)

ENG 161 Careers for English Majors 1(1-0)
Identifies career options and presents employment opportunities for English majors. (*)

ENG 201 Introduction to Literary Study 3(3-0)
Introduction to literary genres, major periods and writers, close reading and textual analysis, modern literary criticism, and research methods. Prerequisite: ENG 102. (*)

ENG 210 American Literature I 3(3-0)
Literature and literary history of America to 1865. Prerequisite: ENG 102. (*)

ENG 212 American Literature II 3(3-0)
Literature and literary history of America from 1865 to the present. Prerequisite: ENG 102. (*)

ENG 220 (CS 220) Survey of Chicano Literature 3(3-0)
Survey of outstanding contemporary Chicano works. Literature deals with Chicano themes, including analysis of folklore and myth. (F)

ENG 221 Masterpieces of Literature I 3(3-0)
Significant writings in world literature from the ancients through the Renaissance and their backgrounds. (F)

ENG 222 Masterpieces of Literature II 3(3-0)
Significant writings in world literature from the seventeenth century to the present and their backgrounds. (S)

ENG 231 Literature of England I 3(3-0)
Literature and literary history of England from the Anglo-Saxon Period through the 18th Century. Prerequisite: ENG 102. (*)

ENG 232 Literature of England II 3(3-0)
Literature and literary history of England in the Romantic, Victorian and Modern Periods. Prerequisite: ENG 102. (*)

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. Prerequisite: ENG 101. (*)

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. (*)

ENG 254 Literature of Science Fiction 3(3-0)
Imaginative literature of fact and fiction, reading, lectures, movies, and television. (*)

ENG 291 Special Topics (1-3 VAR) (*)

ENG 303 Adv. Comp., Rhetoric, and Grammar 3(3-0)
Advanced persuasive writing, including rhetoric and grammar. Prerequisite: ENG 102. (*)

ENG 305 Technical and Scientific Report Writing 3(3-0)
Emphasis on discrete professional formats and styles in writing manuals, proposals, government contracts and reports. For upperclassmen in technical and professional fields. Prerequisite: ENG 102. (F,S)

ENG 307 Poetry 3(3-0)
Poetry as a genre; prosody and techniques of fixed-form and free verse; poetic traditions from ancient to contemporary; poetic theory and criticism. Prerequisite: ENG 201. (*)

ENG 308 Fiction 3(3-0)
Prose fiction as a genre, including the modern short story and representative novels from 1700 to the present. Prerequisite: ENG 201. (*)

ENG 309 Drama 3(3-0)
Drama as a literary genre; representative works from the ancient, medieval, Renaissance, modern, and contemporary traditions; historical, theatrical, and critical contexts. Prerequisite: ENG 201. (*)

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 114. (*)

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 114. (*)

ENG 317 Creative Nonfiction 3(3-0)
Introduction to writing the reflective essay. Prerequisite: ENG 114. (S)

ENG 318 Creative Writing: Drama 3(3-0)
Introduction to playwriting. Composition of a one-act play and development of creative and critical thinking through the study of major playwrights. Prerequisite: ENG 114. (*)

ENG 321 American Romanticism 3(3-0)
A study of the major figures in the development of American Romanticism. Prerequisites: ENG 310 and 312, or permission of instructor. (*)

ENG 322 American Literary Realism, 1870-1910 3(3-0)
A study of the development of Realism and Naturalism in American literature during the late 19th century and the early 20th century. Prerequisites: ENG 310 and 312, or permission of instructor. (*)

ENG 323 Modern American Literature 3(3-0)
A study of major writers' themes, and developments in American literature from the 1910s to the 1960s. Prerequisites: ENG 310 and 312 or permission of instructor. (*)

ENG 324 American Cinema/American Culture 3(3-0)
From early twentieth century to date, a survey of profoundly influential, selected American films, their aesthetic, cultural and technological impacts. (*)

ENG 325 Nature Writing in the West 3(3-0)
Studies in writings about the western landscape and environment by American nature writers; intensive practice in nature writing. (S)

ENG 326 Writing for the WEB 3(3-0)
Writing for the World Wide Web and intranets, including rhetorical approaches, elements of design, and organizing informative sites for education, government, business, and the arts. Prerequisite: ENG 102. (S)

ENG 328 Contemporary American Lit 3(3-0)
Advanced study of a focused topic in contemporary American literature (genre, theme, or set of related texts), in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

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 3(3-0)
Emphasis on social problems and European influences, focus on trends coming to full development in the 20th century. Includes recent works. Prerequisite: ENG 201. (*)

ENG 340 (WS 340) Women in Literature 3(3-0)
Intensive study of literature written by women, in historical, cultural, and critical contexts. Prerequisite: ENG 102. (*)

ENG 351 Children's Literature 2(2-0)
Classic and contemporary children's literature with emphasis on selection and evaluation. Prerequisite: ENG 101. (*)

ENG 352 English Syntax and Usage 3(3-0)
English usage and language systems, emphasis on forms and functions of language analysis. (*)

ENG 354 Women Writers of Science Fiction 3(3-0)
Classic and contemporary science fiction written by women. (*)

ENG 355 Women Writers of Detective Fiction 3(3-0)
Survey detective fiction by women from Agatha Christie to the present. (*)

ENG 370 Rediscovering the Fairy Tale 3(3-0)
The Fairy Tale: Its history, psychological basis, relationship to mythology, and transformations in poetry, film, music, and visual art. (*)

ENG 371 Medieval English Literature 3(3-0)
Advanced study of a focused topic in medieval literature, (genre, theme, or set of related texts), in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

ENG 372 Early Modern English Literature 3(3-0)
Advanced study of a focused topic in early modern English literature, (genre, theme, or set of related texts), in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

ENG 373 Restoration & 18th-C. English Lit 3(3-0)
Advanced study of a focused topic in Restoration and 18th-century English literature, (genre, theme, set of related texts), in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

ENG 374 Romantic & Victorian English Lit 3(3-0)
Advanced study of a focused topic in Romantic and/or Victorian English literature (genre, theme, or set of related texts), in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

ENG 375 Modern & Contemporary English Lit 3(3-0)
Advanced study of a focused topic in modern and/or contemporary English literature (genre, theme, or set of related texts), in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

ENG 381 Shakespeare 3(3-0)
Representative works in various genres, with attention to cultural and critical contexts. Prerequisite: ENG 102.(*)

ENG 381L Shakespeare on Screen 1(0-2)
Viewing and study of Shakespeare's plays in video and film versions. (F)

ENG 384 Studies in Major Writers 3(3-0)
Intensive study of a major writer or writers in historical, cultural, and critical contexts. Prerequisite: ENG 201. (*)

ENG 385 Literacy Criticism and Theory 3(3-0)
Traditional and contemporary critical theories of literature and their applications. Prerequisite: ENG 201. (F)

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. Prerequisite: ENG 102. (*)

ENG 414 Advanced Writing Workshop 3(3-0)
Development of students' best writings in workshop format in preparation for graduate school and/or publication. A genre-specific focus is required upon enrollment. Prerequisites: ENG 114 and ENG 315, 316, 317, or 318. (S)

ENG 424 Novels into Film 1740-Present 3(2-2)
Comparative study of great novels, 1740-present, and film versions of those novels. (*)

ENG 440 (MCCNM 440) Magazine Writing 3(3-0)
Instruction and practice in writing nonfiction magazine articles with emphasis on story research and market selection. Prerequisites: ENG 303 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. Prerequisites: ENG 201 or ENG 102 and HIST 102. (*)

ENG 445 Magazine Editing and Production 3(3-0)
Writing, editing, and design for printing and Web publication of a general-circulation regional magazine. Prerequisites: ENG 440 or MCCNM 202 or 311 or 440 or permission of the instructor. (*)

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. Prerequisites: ENG 251 or ENG 303 or ENG 352. (*)

ENG 461 Careers for English Majors 1(1-0)
Identifies and explores graduate school and employment opportunities. (*)

ENG 491 Special Topics (1-3 VAR) (*)

ENG 493 Senior Seminar 3(3-0)
In-depth analysis of specific topics, themes, authors, and works in American, English or world literature. Prerequisite: ENG 385. (*)

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. (*)

ENGINEERING TECHNOLOGY (ET)

UNDERGRADUATE COURSES

ET 101 Introduction to Engineering Technology 2(1-2)
An introduction to the different engineering technology disciplines: technology teams, career opportunities, the design process, tools-of-the-trade, professional ethics. Team projects. (F)

ET 202 Statics 3(3-0)
Basic concepts and application of static forces; couples, resultants, equilibrium, trusses, cables, friction and centroids. Prerequisite: MATH 124. (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. Prerequisite: ET 202. (S)

ET 226 Introduction to Programming 2(1-2)
An introductory course in programming to solve engineering problems. Prerequisites: CIS 104 (or equivalent) and MATH 121. (F)

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)

EXERCISE SCIENCE AND HEALTH PROMOTION (EXHP)

UNDERGRADUATE COURSES

EXHP 101 Introduction to EXHPR 3(3-0)
Introduction to fundamentals of exercise science, health promotion and recreation professions. Overview of health promotion, fitness, athletic training, recreation and school-based programs, and career opportunities. A prerequisite for EXHP 344. (F,S)

EXHP 104L Personal Fitness 1(0-2)
Students will learn how to evaluate their personal fitness level and develop a comprehensive exercise program beneficial to their overall health and wellness. (*)

EXHP 106L Martial Arts and Self-Defense 1(0-2)
Overview of the history, philosophy and techniques of martial arts and self-defense. Includes skill development of physical techniques. (O)

EXHP 107L Scuba Diving 1(0-2)
Students will learn the basic skills, knowledge and equipment necessary to receive beginning scuba certification. The class includes an off-campus checkout dive for certification purposes. (*)

EXHP 109L Volleyball 1(0-2)
An introduction to the fundamental skills, rules and strategies used in power volleyball. (*)

EXHP 110L Weight Training 1(0-2)
An introduction to basic strength evaluation, fundamental machine and free weight techniques and safety concepts in the weight room. (F,S)

EXHP 111 Commitment to Academic Excellence 1(1-0)
Supports the academic progress of the Student-Athlete toward intellectual development and adjustment to college life academically, athletically and socially. Various resources will be presented. (F)

EXHP 113L Whitewater Boating 1(0-2)
Introduction class in which the following skills are taught: basic strokes, Eskimo rolling, how to read water, and clothing requirements. The class will include lecture, pool and river trip sessions. (*)

EXHP 114L Basic Mountaineering Techniques 1(0-2)
A basic camping class designed to teach the fundamentals of self-sufficient tent camping. Emphasizes clothing, equipment selection, nutrition, and Leave No Trace guidelines. (*)

EXHP 115L Skiing 1(0-2)
Fundamentals, techniques, equipment and clothing for alpine and Nordic skiing will be examined. Trips will be available to experience alpine/Nordic skiing. Additional costs apply. (*)

EXHP 116L Camping 1(0-2)
An introduction course to instruct the basics of traveling in the backcountry with everything one needs in their backpack. Clothing, equipment, orienteering, first aid, route and campsite selection will be emphasized during the trips that are required for this class. (F)

EXHP 117L Backpacking 1(0-2)
Students will experience climbing one or more mountains in the state of Colorado. Clothing, travel techniques, food, route finding and time management are just some of the topics explored in this course. (F)

EXHP 118L Jogging 1(0-2)
An introduction to walking/jogging/running techniques, training programs, fitness assessment, appropriate footwear and safety considerations. (*)

EXHP 119L Walking for Fitness 1(0-2)
The introduction and development of skills, safety, understanding of body functions and basic conditioning related to aerobic fitness through walking. (*)

EXHP 120L Aerobics 1(0-2)
Introduction and participation in the techniques used in rhythmic aerobic dance. Students are able to select from a variety of formats including but not limited to floor aerobics, step aerobics and aqua-aerobics. (*)

EXHP 121L Aerobics Instructor Training 1(0-2)
Study in leading a safe and effective aerobic exercise activity including working with diverse groups. Students receive background to sit for a national certification exam. (*)

EXHP 122L Military Physical Training 1(0-2)
Introduction to physical fitness and training. Students participate in practical training and learn the basics of fitness, nutrition and flexibility. (F,S)

EXHP 143L Folk, Square, and Ballroom Dance 1(0-2)
Overview of the music and dance techniques used in Folk, Square and Ballroom dancing. (*)

EXHP 146L Beginning Swimming 1(0-2)
Introduces the knowledge and skill necessary to handle the body with ease in the water and covers basic mechanical, physiological, and psychological concepts. (*)

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)

EXHP 162L Personal Health Lab 1(0-2)
Optional experiential lab studies to augment EXHP 162. Corequisite: EXHP 162. (F,S,SS)

EXHP 174L Tennis 1(0-2)
An introduction to the fundamental skills, rules and strategies used in the game of tennis. (*)

EXHP 175L Racquetball 1(0-2)
An introduction to the fundamental skills, rules and strategies used in the game of racquetball. (*)

EXHP 176L Life Guard Training 1(0-2)
Certification course in the American Red Cross Life Guarding program designed to provide lifeguard candidates and lifeguards with the skills and knowledge necessary to keep patrons of aquatic facilities safe in and around the water. Prerequisite: swimming pre-test. (*)

EXHP 187L Intercollegiate Sports I 2(0-4)
Participation in an intercollegiate sports program. Course registration is limited to freshman competing in a varsity sport program offered by CSU-Pueblo.

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 211 Commitment to Service 1(1-0)
Life skills for Sophomore Student-Athletes to enhance their experience by engaging the student in service to his or her campus and surrounding communities. (S)

EXHP 222 Behavior Facilitation 3(3-0)
Study the influence of social and behavioral systems on health. Emphasis on the fundamentals of self-directed behavior change, health dysfunctions, and stress management. (F)

EXHP 231 Cardiopulmonary Resuscitation 1(1-0)
Technique of applying a combination of artificial respiration and artificial circulation in the event cardiac arrest occurs. (S/U grading) (*)

EXHP 232 First Aid (2-3 VAR)
Knowledge and skills in current first-aid and CPR procedures. Red Cross certification. Students in the Athletic Training track are required to enroll for 3 credits. (F,S,SS)

EXHP 233 History and Principles of Physical Education and Recreation 2(2-0)
Study of the history, philosophy and perspectives of physical education and recreation, and their influence upon contemporary American society. (F)

EXHP 243 Methods of Rhythmic Activities 2(2-0)
Fundamentals of folk, square and social dance; emphasis on the teaching techniques involved in basic dance styles and rhythms. (S)

EXHP 245 Motor Learning and Development 3(3-0)
Applied analysis of motor learning and motor development principles and theories throughout the human life span. (S)

EXHP 260 Care and Prevention of Athletic Injuries 3(2-2)
Procedures in the prevention, care and treatment of injuries sustained during activity and athletic participation. (F,S)

EXHP 276L Water Safety Instructor Certification 2(0-2)
Water safety instruction certification may be earned in this course. Prerequisite: EXHP 176L. (*)

EXHP 279 Practicum in Athletic Training I 1(0-2)
Instruction, practice and evaluation of clinical proficiencies, and clinical experience. Prerequisites: EXHP 189, current CPR certification. (F)

EXHP 287L Intercollegiate Sports II 2(0-4)
Participation in an intercollegiate sports program. Course registration is limited to sophomore student-athletes competing in a varsity sport program offered at CSU-Pueblo.

EXHP 288 Health Promotion Practicum 3(1-4)
Overview of the fundamentals, skills, and professional opportunities in health promotion through the utilization of academic researching, application, theory, and experiential methods. (F)

EXHP 289 Practicum in Athletic Training II 1(0-2)
Continued instruction, practice and evaluation of clinical proficiencies, and clinical experience. Prerequisite: current CPR certification. (S)

EXHP 291 Special Topics (1-5 VAR) (F,S)

EXHP 311 Commitment to Personal Development 1(1-0)
Life skills class offered for Junior Student-Athletes to enhance their commitment to Personal Development encouraging emotional well-being, personal growth and decision making. (F)

EXHP 323 Functional Exercise Training 2(1-2)
Course applications include exercise program design, aspects of functional training, and components of various types of exercise regimens as related to injury prevention and recovery. Prerequisite: EXHP 364. (S)

EXHP 330 Lower Extremity Evaluation 3(2-2)
An in-depth study of assessment techniques and protocols applicable to injuries to the lower extremities. Prerequisites: EXHP 260, BIOL 223, 223L and approval by program director. (F)

EXHP 331 Upper Extremity Evaluation 3(2-2)
An in-depth study of assessment techniques and protocols applicable to injuries to the upper extremities. Prerequisites: BIOL 223, 223L and approval of the program director. (S)

EXHP 332 Head, Neck, and Spine Evaluation 3(2-2)
An in-depth study of assessment techniques and protocols applicable to injuries to the head, neck and spine. Prerequisites: EXHP 331 and permission of the instructor. (S)

EXHP 336 Community Health 3(2-2)
Introduction to aspects of community and public health, functions of health services at all levels, and exploration of current health problems. Prerequisites: EXHP 101 and EXHP 288. (F)

EXHP 339 Clinical Pathology and Assessment 3(2-2)
Study of differential signs and symptoms produced by systemic diseases affecting physical activity in individuals to enable the athletic trainer in making sound clinical decisions. Prerequisite: EXHP 332. (S)

EXHP 343 Measurement and Evaluation 3(3-0)
Introduction to the use of measurement and research. Emphasis on reviewing and interpreting professional literature, interpreting basic statistics and understanding the concepts underlying successful evaluation. Prerequisite: MATH 109 or 121 or permission of instructor. (S)

EXHP 344 Exercise Physiology 3(3-0)
Physiologic control of the human body during acute exercise, and adaptations to regular exercise stress. Emphasis on relationships among health, fitness, and exercise. Prerequisites: BIOL 223, 223L, MATH 109 or 121, EXHP 343. (F)

EXHP 344L Exercise Physiology Lab 1(0-2)
Extension of course lecture which provides practical experience in laboratory experiments which address exercise and exercise theory. Corequisite: EXHP 344. Prerequisites: BIOL 223, 223L, MATH 121 or 109, EXHP 343. (F)

EXHP 345 Methods of Physical Activities & Games I 2(2-0)
Teaching procedures, skills and techniques of physical activities and games including soccer and volleyball. (F)

EXHP 346 Methods Physical Activities & Games II 2(2-0)
Teaching procedures, skills and techniques of physical activities and games including track/field, basketball and softball. 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. (F)

EXHP 351 Methods of Teaching Elem Physical ED 3(3-0)
Study of effective teaching for elementary children including; maximizing student learning, student and self-assessment, utilization of resources, planning, implementation and revision. 30 hours field experience. Prerequisites: acceptance into Teacher Education Program. Corequisite: EXHP 478. (F.S)

EXHP 364 Kinesiology 3(3-0)
Integration of fundamentals of anatomical and structural components of human movement with the study of fundamental body movements and the primary muscles involved in those movements. Prerequisites: BIOL 223, 223L. (S)

EXHP 379 Practicum in Athletic Training III 1(0-2)
Continued instruction, practice and evaluation of clinical proficiencies, and clinical experience. Prerequisites: EXHP 289 and CPR certification. (F)

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: BIOL 223, 223L. (S)

EXHP 389 Practicum in Athletic Training IV 1(0-2)
Continued instruction, practice and evaluation of clinical proficiencies, and clinical experience. Prerequisites: EXHP 379 and CPR certification. (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 411 Commitment to Career Development 1(1-0)
Life skills class required for Senior Student-Athletes to prepare them for post graduation. Encourages the student to develop and pursue career and life goals. (S).

EXHP 419 Athletic Training Field Experience (1-5 VAR)
Learning experiences to be conducted in an actual athletic training or related environment and supervised by an approved Athletic Training clinical instructor (ACI). Corequisites: one of the following courses: EXHP 279, 379, 389, 479, 489. (F,S,SS)

EXHP 430 Therapeutic Modalities 3(2-2)
Study of theories and application of modalities used in the athletic training setting for the treatment of injuries. Prerequisites EXHP 330, 331. (F)

EXHP 431 Therapeutic Exercise 3(2-2)
Study of current rehabilitation theories and application in the athletic training setting. Prerequisite: EXHP 430. (S)

EXHP 436 Exercise Assessment & Leadership 3(3-0)
Methods used to assess exercise clients, prescribe effective exercise programs, and develop/lead group exercise classes in order to achieve optimal health in apparently healthy people. Prerequisites: EXHP 344, 344L. (S)

EXHP 443 Administration in Athletic Training 3(3-0)
An examination of current topics in athletic training including legal liability, athletic training administration issues, and budgetary concerns. Prerequisite: approval by program director. (S)

EXHP 461 Managing Programs in EXHPR 3(3-0)
Organizational and administrative functions used in a modern management approach to programs in Physical Education, Health Promotion, Athletics, Fitness, and Recreation. Corequisite: Senior standing. (S)

EXHP 464 Adapted Physical Education 3(3-0)
Remedial and corrective programs in physical education; emphasis on conditions that cause individuals to require special attention beyond the regular physical education program. Prerequisites: non teacher education minors only, BIOL 223, 223L. (F)

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: Admission to Teacher Education Program, BIOL 223, 223L. (F)

EXHP 470 Methods of Coaching and Officiating 3(3-0)
Skills and methods of coaching and officiating sports. (F)

EXHP 471 Coaching and Officiating Football 2(2-0)
Techniques and strategy of coaching and officiating football. (*)

EXHP 472 Coaching and Officiating Basketball 2(2-0)
Techniques and strategy of coaching and officiating basketball. (*)

EXHP 473 Coaching Certification Clinic 1(1-0)
Overview of principles of coaching, scientific basis of coaching, management and legal issues in coaching, and sports first-aid. Required for American Sports Education Program coaching certification. (SS)

EXHP 475 Coaching and Officiating Volleyball 2(2-0)
Techniques and strategy of coaching and officiating volleyball. (*)

EXHP 478 Methods of Teaching Secondary Physical Education 3(2-2)
Study of effective teaching with emphasis on teaching methods, student learning time, classroom management and program planning. 30 hours field experience. Prerequisite: admission to Teacher Education Program. Corequisite: EXHP 351 (F,S)

EXHP 479 Practicum in Athletic Training V 1(0-2)
Continued instruction, practice and evaluation of clinical proficiencies, and clinical experience. Prerequisites: EXHP 389, current CPR certification. (F)

EXHP 482 Coaching and Officiating Wrestling 2(2-0)
Techniques and strategy of coaching and officiating wrestling. (*)

EXHP 483 Coaching and Officiating Baseball 2(2-0)
Techniques and strategy of coaching and officiating baseball. (*)

EXHP 484 Coaching and Officiating Soccer 2(2-0)
Techniques and strategies of coaching and officiating soccer. (*)

EXHP 485 Methods in Health Promotion 3 (2-2)
Planning, implementation, and evaluation of educational strategies and components of health promotion. Focus on educational methodology and student learning. Prerequisite: EXHP 382 or permission of instructor. (F)

EXHP 487 Health Promotion Program Planning/ Evaluation 4(3-2)
Focus on planning, implementing, and evaluating work site health promotion programs. Prerequisite: EXHP 485. (S)

EXHP 489 Senior Practicum in Athletic Training 1(0-2)
Continued instruction, practice and evaluation of clinical proficiencies, and clinical experience. Prerequisite: EXHP 479. (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 grading) 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)
450 hours of supervised experience with approved professionals in select health promotion settings including the completion of a major application project and other various assignments. Prerequisite: senior standing, completion of all other degree requirements, 2.50 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 202, ECON 201 and ECON 202. (F,S)

FIN 331 Managerial Finance: Policy, Planning and Control 3(3-0)
Financial management, planning, policy formulation and financial decision making. Prerequisites: FIN 330 and MATH 221. (*)

FIN 333 Investment Analysis 3(3-0)
Analysis and forecasting of security markets, industry and company studies, portfolio selection and management. Prerequisites FIN 330 and MATH 221. (*)

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. Prerequisites: FIN 330 and MATH 221. (*)

FIN 430 Financial Institutions and Markets 3(3-0)
The role of financial institutions, instruments and markets; structure of interest rates; the Federal Reserve and monetary policy; and the structure, regulation, portfolio and risk management of financial institutions. Prerequisites: FIN 330 and MATH 221. (*)

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 330 and MATH 221. (*)

FIN 475 International Finance 3(3-0)
Illustrate theories and the current issues of international finance. Topics include the determination of exchange rates, intervention and international monetary systems. Prerequisites: ECON 301, FIN 330, and MATH 221. (*)

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 grading) (*)

GRADUATE COURSES

FIN 501 Fundamentals of Finance 1.5(1.5-0)
This class prepares students in basic concepts of managerial finance, including goals, financial analysis, cash flows, time value, risk/return, stocks/bonds, and investment decisions. Prerequisite: admission to MBA. (*)

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: admission to MBA or permission of MBA Director. (*)

FIN 575 International Financial Management 3(3-0)
Financial theory and practice as applied to the financial management of multinational corporations. Prerequisites: FIN 530 and admission to MBA or permission of MBA Director. (*)

FIN 591 Special Topics 3(3-0)
Prerequisite: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

FIN 598 Internship (1-3 VAR)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: admission to MBA or permission of MBA Director. (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. (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) (*)

FACILITIES MANAGEMENT AND TECHNOLOGY STUDIES (FMTS)

UNDERGRADUATE COURSES

FMTS 103 Intro to Facility Management and Technology Studies 2(2-0)
Qualifications, opportunities, preparation, and duties in the fields of teaching technology and facilities management. (F)

FMTS 140 Office and Furniture Design 3(3-0)
Design aspects of the modern office including furniture and furnishings, facility and space planning, productivity, comfort and efficiency. (F)

FMTS 206 Commercial and Residential Construction 3(2-2)
Building systems and materials related to foundations, interior finishes, roofing, glazing, cladding used in wood, masonry, steel and concrete construction from a contractor's perspective. (S)

FMTS 230 Environmental Issues in Facilities 3(3-0)
Develop and learn to implement practices that protect and promote health, safety, security, quality of work life, the environment and organizational effectiveness. (S)

FMTS 296 Cooperative Education Internship (1-5 VAR)
For freshmen and sophomores. Work experience under direction of a field supervisor and faculty member. (F,S, SS)

FMTS 306 Building Mechanical Systems 3(2-2)
Study of building mechanical systems including heating, ventilation, air conditioning, plumbing, and fire protection from a designer's perspective. (F)

FMTS 309 Building Electrical Systems 3(2-2)
Study of building electrical systems including communication and control, transportation, security, power distribution and lighting from a designer's perspective. (S)

FMTS 341 Facilities Planning and Layout 3(3-0)
The principles of facilities planning relating to location, material flow, placement of real and personal property, workstation configuration and developing a facilities plan. (F)

FMTS 350 Facilities Management Administration 3(3-0)
Planning, organizing, staffing, budgeting and administering a facilities management organization and delivering facilities services. (F)

FMTS 351 Facilities Management Operations 3(3-0)
Planning, programming, budgeting and managing facilities design, construction, renovation and sustainment operations. Prerequisite: FMTS 350. (S)

FMTS 430 Industrial Safety 3(3-0)
Laboratory organizational patterns, administrative duties of the teacher, and safety regulations. (S)

FMTS 431 The Facilities Supervisor 3(3-0)
Preparation for assuming leadership of facilities management organizations. Includes self-preparation, organizational effectiveness, motivational and other techniques. Prerequisite: FMTS 350 and 351. (S)

FMTS 442 Computer Aided Facility Management 3(2-2)
A study of the availability, capabilities, analysis, selection, justification, acquisition, installation and operation of computerized systems designed to enhance facilities management. Prerequisite: CET 313/FMTS 351. (S)

FMTS 490 Special Projects (1-5 VAR)
Prerequisite: junior or senior standing; permission of instructor. (F,S,SS)

FMTS 491 Special Topics (1-5 VAR)
Emerging Topics in Industrial Science not currently included in other courses. Prerequisite: junior/senior standing with program coordinator permission. (F,S)

FMTS 493 Seminar (1-5 VAR)
Individual and small-group activities. Individual experimentation and expertise development in facilities management and/or technology studies. (F)

FMTS 495 Independent Study (1-5 VAR)
For advanced students. Each student selects, outlines and pursues a project. Instructor approval and supervision provided. May be repeated. (F,S,SS)

FMTS 496 Cooperative Education Internship (1-5 VAR)
Work experience under direction of field supervisor and faculty member. Prerequisite: junior or senior standing. (F,S,SS)

FRENCH (FRN)

UNDERGRADUATE COURSES

FRN 101 Beginning Spoken French I 4(3-2)
Grammar and pronunciation with aural-oral training to develop skills in understanding and speaking. Written exercises to develop reading and writing skills. Introduction to French culture. (F,S)

FRN 102 Beginning Spoken French II 4(3-2)
Students are placed by the department. Practice in oral, aural, reading and writing experiences. Prerequisite: FRN 101 OR equivalent. (F,S)

FRN 201 Intermediate French I 4(3-2)
Grammar review, idioms and writing of compositions. Selected readings with oral and written exercises. Prerequisite: FRN 102 or equivalent. (F)

FRN 202 Intermediate French II 4(3-2)
Grammar review, idioms and writing of compositions. Selected readings with oral and written exercises. Prerequisite: FRN 201 or equivalent. (S)

FRN 301 Advanced French Grammar I 3(3-0)
Systematic review of grammar; presentation of the more sophisticated syntactical patterns to enable students to write correctly. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 311 Advanced French Conversation I 3(3-0)
Emphasis on acquisition of vocabulary and idiomatic expressions. Advanced oral practice. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 312 Advanced French Conversation II 3(3-0)
Alternate for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 341 Masterpieces of French Literature 3(3-0)
Close study of outstanding French works with emphasis on literary forms, critical methods and techniques. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 351 French Phonetics and Diction 3(2-2)
French pronunciation: theory, correction and practice of diction and intonation. Phonetic transcription and remedial exercises. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 381 French Civilization I 3(3-0)
Geography, art, architecture, economics and social problems, correlated with history from the origins to contemporary France. Required for teacher certification. Prerequisite: FRN 202, or permission of instructor. (*)

FRN 382 French Civilization II 3(3-0)
Alternate for teacher certification. Prerequisite: FRN 202, or permission of instructor. (F)

FRN 387 Intensive French Study Abroad (6 -12 VAR)
Study of French in an immersion setting abroad preparing the student to become fluent in the language through the study of grammar, civilization and culture. Prerequisite: permission of instruction; FRN 201. (*)

FRN 494 Field Experience (1-7 VAR)
Communication, lectures by writers, artists, political leaders and specialists. Visits to museums, attendance at movies, theaters and excursions. Prerequisite: two years college French. (*)

FRN 495 Independent Study (1-3 VAR)
Specific themes which address particular problems of literature or civilization. May be repeated for credit with approval of major adviser. (*)

GEOGRAPHY (GEOG)

UNDERGRADUATE COURSES

GEOG 101 Physical Geography 3(3-0)
Three Earth spheres: the hydrosphere (oceanography, hydrologic cycle); the atmosphere (meteorology and climatology) and the lithosphere (geology, internal/ external processes) are emphasized and examined. (F,S,SS)

GEOG 102 Cultural Geography 3(3-0)
Emphasis on cultural regions, cultural diffusion, and cultural landscape. Major themes are culture, population, agriculture, language and religion, ethnicity, urbanization, industry, and political geography. (F/S/SS)

GEOG 103 World Regional Geography 3(3-0)
The interconnectivity and interrelationship of the world regions by stressing physical, economic development, agricultural, cultural and population characteristics. Strengthening of one's mental world map. (F,S)

GEOG 491 Special Topics 3(3-0)
Devoted to special topics in Geography (human, physical, and regional). Prerequisites: Jr. or Sr. standing with adequate preparation and permission of instructor. (F,S,SS)

GEOLOGY (GEOL)

UNDERGRADUATE COURSES

GEOL 101 Earth Science 3(3-0)
Four earth spheres: the hydrosphere (oceanography, hydrologic cycle); the atmosphere (meteorology and climatology); the lithosphere (geology; internal and external processes); and space are emphasized. Co-requisite: 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 3(3-0)
Review and expansion of first-year grammar. Compositions, reading and discussion of contemporary German life. Prerequisite: GER 102 or equivalent. (F)

GER 202 Intermediate German II 3(3-0)
Prerequisite: GER 201 or equivalent. (S)

GER 301 Advanced German Grammar I 3(3-0)
Prerequisite: GER 202 or permission of instructor. (*)

GER 302 Advanced German Grammar II 3(3-0)
Prerequisite: GER 202 or permission of instructor. (*)

GER 381 German Civilization I 3(3-0)
German geography, culture and history from the beginning to the present. Prerequisite: GER 202 or permission of instructor. (*)

GER 382 German Civilization II 3(3-0)
Prerequisite: GER 202 or permission of instructor. (*)

HISTORY (HIST)

UNDERGRADUATE COURSES

HIST 101 World Civilization to 1100 3(3-0)
Cultural and political growth of civilizations from prehistoric times to 1100; emphasis on the unique contributions of independent cultures to world history. (F,S)

HIST 102 World Civilization From 1100 to 1800 3(3-0)
Cultural and political interaction of civilizations from 1100 to 1800; emphasis on common problems and goals of mankind. (S)

HIST 103 World Civilization Since 1800 3(3-0)
Cultural and political interaction of civilization since 1800; emphasis on conflict and resolution. (F,S)

HIST 136 (CS 136) The Southwest United States 3(3-0)
This course traces the culture and historical development of the southwestern United States, including cultural contributions of the American Indian and Hispanic peoples. (*)

HIST 201 U.S. History I 3(3-0)
United States history from founding of North American colonies to 1877 Reconstruction era. (*)

HIST 202 U.S. History II 3(3-0)
United States from 1877 Reconstruction era to contemporary era. (*)

HIST 211 Colorado History 3(3-0)
History, government and economic factors important to the settlement and development of Colorado. (S)

HIST 246 (CS 246) History of Mexico 3(3-0)
This course surveys the major political, economic, social and cultural developments of Mexico from pre-Columbian times to the present. (*)

HIST 291 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

HIST 295 Independent Study (1-3 VAR)
An individualized program of study designed by ranked, full-time History professor for a promising student. Prerequisite: Permission of Instructor. (*)

HIST 300 Historiography 3(3-0)
Enhances student knowledge of historical profession through developing historical research skills. (F,S)

HIST 301 America to 1787 3(3-0)
History of America during the colonial and Revolutionary eras. (*)

HIST 302 America, 1787-1877 3(3-0)
History of the United States during the early national and Civil War eras. (*)

HIST 303 America, 1877-1945 3(3-0)
History of United States from the Gilded Age to 1945. (*)

HIST 304 America, 1945-Present 3(3-0)
History of the United States from 1945 to the present. (*)

HIST 311 History of United States Foreign Policy 3(3-0)
United States foreign policy from the founding of the republic to the present. (*)

HIST 332 History of Rome from Republic to Empire 3(3-0)
Course will examine the history of Rome, discussing the political, social, military, and cultural importance of this city-state that rises to a great power. Prerequisites: junior or senior standing or permission of instructor. (S,O)

HIST 362 History of Russia 3(3-0)
Cultural and political development of Russian and Soviet history from 800 to the present; emphasis on impact of the Bolshevik Revolution on history. (*)

HIST 372 History of Modern China 3(3-0)
Cultural and political developments in modern China; emphasis on the interplay between Chinese tradition and western challenges. (*)

HIST 395 Independent Study (1-3 VAR)
An individualized program of study designed by a ranked full-time Historian for a promising student who has demonstrated ability in a regular History class. Prerequisite: Previous work in History and permission of Instructor. (*)

HIST 411 American Labor History 3(3-0)
History of Labor in the United States. Examines history of American workers, the unions they organized and considers the changing nature of work. (*)

HIST 413 American West 3(3-0)
Role of the individual and the group in the development of the frontier into the 20th century. Prerequisite: permission of instructor. (*)

HIST 414 The American Civil War 3(3-0)
Social, cultural, and political developments that caused the sectional crisis, secession, and war. War coverage includes military strategy, politics, diplomacy, and emancipation. (*)

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 417 Hollywood and History 3(3-0)
The course examines how Hollywood has treated historical themes. What are the different factors that go into film making decisions? Prerequisites: junior or senior standing or permission of instructor. (F,E)

HIST 427 (WS 427) Women & Gender in European History 3(3-0)
Examines impact of women and ideas about gender on aspects of European history since 1500 and examines impact of historical changes on women and gender. Prerequisites: HIST 103 or permission of instructor. (*)

HIST 428 (SOC, WS 428) Women & Work 3(3-0)
Examines historical and contemporary issues for women of various economic, social, and ethnic groups, especially in the US; examines gender ideologies about paid, unpaid work. Prerequisites: junior or senior standing or permission of instructor. (*)

HIST 444 The Lincoln Brigades: American Involvement in the Spanish Civil War 3(3-0)
American involvement in the Spanish Civil War was mainly a volunteer effort. The class investigates those who fought for the Spanish Republic. Prerequisites: junior or senior standing 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 456 Medieval Europe 3(3-0)
Changes and continuities, important events, movements, and social and cultural changes of the medieval period of European history. (S)

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 468 Military History 3(3-0)
Introduction to military history from 1700 to the present. Covers changes in policy, structural organization, planning, strategies, technology, and social impact. (S/E)

HIST 489 (CS 489) Borderlands 3(3-0)
History of the Mexican cession to the United States from its Indian and Hispanic origins to the present. Prerequisite: CS/HIST 136 or HIST 201 or HIST 202 or HIST 211, or permission of instructor. (*)

HIST 491 Special Topics (1-3 VAR)
Prerequisites: junior or senior status with adequate preparation and permission of instructor. (*)

HIST 493 Seminar 3(3-0)
Seminar devoted to special topics and issues in history; emphasis on research paper. Prerequisites: HIST 300 or permission of instructor. (S)

HIST 495 Independent Study (1-3 VAR)
An individualized program of study designed by a ranked full-time Historian for a History major or minor. Prerequisite: History major or minor and permission of Instructor. (*)

HIST 498 Internship (3-6 VAR)
For advanced students. Practical experience through internship with museums, libraries with historical collections, and other community organizations. Prerequisites: junior or senior standing and departmental permission. (*)

GRADUATE COURSES

HIST 513 Frontier America 3(3-0)
Analysis of the role of the frontier in the development of America. Prerequisite: graduate standing. (*)

HIST 558 Modern Europe 3(3-0)
Important changes and controversies in recent European history, including the effects of the Industrial Revolution, Victorian culture and society, science and technology, rivalries, and fascism. Prerequisite: graduate standing. (S)

HIST 589 Borderlands 3(3-0)
History of the Mexican cession to the United States from its Indian and Hispanic origin to the present. Prerequisite: graduate standing. (*)

HIST 591 Special Topics (1-3 VAR) (*)

HIST 593 Seminar 3(3-0)
Seminar devoted to specific areas and issues in history; emphasis on research paper. Prerequisite: graduate standing (*)

HONORS (HONOR)

UNDERGRADUATE COURSES

HONOR 193 Introduction to Honors 1(1-0)
The purpose of this course is to introduce honors students to the Honors Program. Additionally, there is emphasis on developing effective and efficient study habits based on established learning principles. Prerequisite: director's permission. (F)

HONOR 210 Honors Life Science and Technology 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with the aesthetic, cultural, historical, sociological and scientific aspects of life science and technology. (S)

HONOR 220 Honors Health Issues 3(3-0)
A thematic, interdisciplinary small-group seminar dealing with the aesthetic, cultural, historical, sociological, scientific and technological aspects of health issues. (S)

HONOR 230 Honors International & Economic Issues 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with aesthetic, cultural, historical, sociological, scientific and technological aspects of international and economic issues. Prerequisite: three hours previous honors work. (*)

HONOR 240 Honors Physical Science 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with the aesthetic, cultural, historical, sociological, scientific and technological aspects of physical science. (F)

HONOR 250 Honors Literary Themes 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with the aesthetic, cultural, historical, sociological and scientific aspects of literary themes. (S)

HONOR 291 Special Topics (1-3 VAR) (*)

HONOR 490 Special Projects 2(2-0)
Prerequisite: three hours of previous honors work. (*)

HONOR 491 Special Topics (1-3 VAR) (*)

HONOR 493 Honors Senior Seminar 3(3-0)
A thematic, interdisciplinary, small-group seminar dealing with scientific, technological, sociological, cultural, aesthetic, ethical, and historical aspects of issues of education and research. Guest speakers and visits to museums, exhibits and cultural events related to the course's theme. Senior honors project will be introduced. Prerequisite: Three hours previous honors work. (*)

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. (*)

MATHEMATICS (MATH)

UNDERGRADUATE COURSES

A grade of C or better is required for prerequisite courses.

MATH 098 Introductory Algebra 4(4-0)
Review of elementary algebraic operations including factoring and operations with fractions. Introduction to graphing, including graphs of lines. Solutions to linear and quadratic equations. This course does not count toward graduation. Prerequisite: Satisfactory placement exam score. (S/U grading). (F,S,SS)

MATH 099 Intermediate Algebra 4(4-0)
A course designed to broaden and deepen algebraic problem-solving skills. Topics include systems of equations, exponents, radicals, complex numbers, quadratic equations, factoring polynomials, function notation and graphs (S/U grading). This course does not count toward graduation. Prerequisite: Satisfactory placement exam score. One year of high school algebra. (F,S,SS)

MATH 109 Mathematical Explorations 3(3-0)
Emphasis on quantitative reasoning and problem solving. Topics chosen from logic, sets, algebra, linear programming, probability, statistics, number theory, geometry, and counting techniques. Prerequisites: Satisfactory placement exam score. MATH 099 or one year of high school algebra or equivalent. (F,S,SS)

MATH 121 College Algebra 4(4-0)
Solutions of algebraic equations, graphs of rational functions, exponential and logarithmic functions, systems of equations, matrices, and determinants. Prerequisites: Satisfactory placement exam score. Math 099 or two years of high school algebra or equivalent. (F,S,SS)

MATH 122 College Trigonometry 3(3-0)
Trigonometric and circular functions, identities, inverse functions, vectors, complex numbers. Prerequisites: MATH 121 or equivalent. (*)

MATH 124 Pre-calculus Math 5(5-0)
Polynomial, rational, exponential and logarithmic functions; solution of systems of equations; trigonometric, circular and certain special functions. Prerequisites: Satisfactory placement exam score. Two years of high school algebra or equivalent. (F,S)

MATH 126 Calculus and Analytic Geometry I 5(5-0)
Introduction to limits, continuity, differentiation and integration with selected applications. Prerequisites: Satisfactory placement exam score. MATH 124 or equivalent. (F,S)

MATH 131 Algebra/Trigonometry for Engineering Technology I 4(4-0)
Integrated sequence (131-132) covering topics in algebra, trigonometry, and analytic geometry, with engineering applications. Prerequisites: Satisfactory placement exam score. Two years of high school algebra or equivalent. (F)

MATH 132 Algebra/Trigonometry for Engineering Technology II 4(4-0)
Continuation of MATH 131. Prerequisites: Satisfactory placement exam score. MATH 131. (S)

MATH 156 Introduction to Statistics 3(3-0)
Introduction to data analysis. Binomial and normal models. Sample statistics, confidence intervals, hypothesis tests, linear regression and correlation, and chisquare tests. Prerequisites: Satisfactory placement exam score. Math 099 or one year of high school algebra or equivalent. (F,S,SS)

MATH 207 Matrix and Vector Algebra with Applications 2(2-0)
Systems of equations, matrix representation of systems, solution of systems, inverses, determinants, and Cramer's Rule. Vectors, scalar and cross-products, applications to two- and three- dimensional geometry. Prerequisite: MATH 124 or equivalent. Corequisite: Majors and minors should take this course concurrently with MATH 224 or MATH 325. (F,S)

MATH 209 Symmetry 3(3-0)
Liberal arts course exploring the mathematical world of symmetry. Topics include isometrics, Euclidean geometry, tiling theory, group theory, and fractals. Prerequisite: Satisfactory placement exam score. One year of high school geometry or permission of instructor. (*)

MATH 220 Quantitative Analysis for Business 4(4-0)
An introduction to quantitative methods required for business studies, includes a brief introduction to the Calculus. Prerequisites: Satisfactory placement exam score. MATH 121 or equivalent. (F,S,SS)

MATH 221 Applied Calculus: An Intuitive Approach 4(4-0)
Non-rigorous introduction to calculus with emphasis on applications and modeling in the life sciences, social and behavioral sciences and business. Prerequisites: Satisfactory placement exam score. MATH 121 or equivalent. (F,S)

MATH 224 Calculus and Analytic Geometry II 5(5-0)
Differentiation and integration of trigonometric, logarithmic, and other transcendental functions. Infinite sequences and series, parametric representation of curves, and selected applications. Prerequisite: MATH 126. Corequisite: Majors and minors should take this course concurrently with MATH 207. (F,S)

MATH 231 Calculus for Engineering Technology I 3(3-0)
Integrated sequence (231-232) covering topics in differential and integral calculus with emphasis on engineering applications. Prerequisites: Satisfactory placement exam score. MATH 132, 124, or equivalent. (F)

MATH 232 Calculus for Engineering Technology II 3(3-0)
Continuation of MATH 231. Prerequisite: MATH 231. (S)

MATH 242 Introduction to Computation with MATLAB 4(3-2)
Introduction to mathematical computation using MATLAB. Includes projects in numerical, graphical and symbolic computation. Loops, conditionals, functions, scripts, recursion, errors, program testing and documentation. Prerequisite: MATH 124. (F)

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 295 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (F,S)

MATH 307 Introduction to Linear Algebra 4(4-0)
A rigorous development of vector spaces and linear transformations. Prerequisites: MATH 207 and MATH 224 and knowledge of a programming language. (F,S)

MATH 320 Introductory Discrete Mathematics 3(3-0)
Introduction to discrete structures with emphasis on logic and proof. Topics selected from graph theory, boolean algebra, combinatorics, binary relations, set theory, functions and sequences. Prerequisites: a grade of C or better in MATH 224 and MATH 207. (*)

MATH 325 Intermediate Calculus 3(3-0)
Continuation of MATH 224. Vector valued functions and multivariable calculus. Prerequisites: MATH 224 or equivalent. Corequisite: Majors and minors who have not yet completed MATH 207 must enroll in MATH 207 concurrently with MATH 325. (F)

MATH 327 Abstract Algebra 4(4-0)
Introduction to groups, rings, and fields and their elementary properties. Prerequisites: MATH 307 and 3 additional upper division mathematics courses. (S)

MATH 330 Introduction to Higher Geometry 3(3-0)
Euclidean, hyperbolic, finite, and transformation geometries, models, and constructions. Prerequisite: MATH 224 or permission of instructor. (S)

MATH 337 Differential Equations I 3(3-0)
First order differential equations, homogeneous and non-homogenous linear differential equations, introduction to the Laplace transform, applications. Prerequisite: MATH 224 or equivalent. (S)

MATH 338 Differential Equations II 3(3-0)
Linear systems, existence and uniqueness of solutions, non-linear equations, series solutions, orthogonal sets of functions. Fourier series, boundary value problems, partial differential equations and applications. Prerequisite: recommend MATH 325. (*)

MATH 342 Introduction to Numerical Analysis 3(3-0)
Numerical solutions of polynomial, differential, integral, and other equations using the computer. Prerequisites: MATH 207 and a programming language, or permission of instructor. (*)

MATH 345 Algorithms and Data Structures 4(3-2)
An introduction to data structures, sorting, searching, recurrence relations and performance measures. Algorithms will be studied analytically and through computer implementation. Prerequisites: MATH 207, MATH 224 and CIS 253. (*)

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. (F)

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. (S)

MATH 360 Elementary Concepts of Mathematics I 3(3-0)
Development of the real number system and related concepts, including sets, numeration systems, whole numbers, integers, fractions, rational numbers, number theory and algorithms. Prerequisites: Intermediate Algebra, or equivalent. Recommend MATH 156. (F,S)

MATH 361 Elementary Concepts of Mathematics II 3(3-0)
Conceptual development of fractions, rational numbers, geometry, measurement, probability and statistics. Prerequisite: C or better in MATH 360. Recommend MATH 156. (F,S,SS)

MATH 362 Problem Solving for K-6 Teachers 3(3-0)
This course focuses on the process of mathematical problem solving. Students will develop and implement useful heuristics, and reflect on problem solving strategies. Prerequisites: C or better in both MATH 156 and MATH 361, or their equivalents. (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. (*)

MATH 421 Advanced Calculus I 4(4-0)
An introductory course in real analysis providing a rigorous development of the concepts of elementary calculus. Prerequisites: MATH 307 and 3 additional upper division mathematics courses. (F)

MATH 422 Advanced Calculus II 3(3-0)
Additional topics from elementary real analysis, theory of multivariable calculus, Stieltjes and line integrals. Prerequisite MATH 421. (*)

MATH 425 Complex Variables 3(3-0)
An introduction to complex function theory. Complex numbers, sequences and series, the calculus of complex functions, analytic functions, and conformal mappings. Prerequisite: MATH 325. (*)

MATH 445 Discrete Mathematics 3(3-0)
Topics selected from mathematical reasoning, combinatorial techniques, set theory, binary relations, functions and sequences, algorithm analysis, and discrete analysis. Prerequisites: MATH 224, 307 and knowledge of a programming language. (*)

MATH 456 Design and Analysis of Experiments 3(3-0)
Foundations of experimental design, outline efficient methods to implement experiments, develop statistical methods to sort signal from noise, analysis of variance and response surface models. (*)

MATH 463 History of Mathematics 3(3-0)
Survey of the origins of important mathematical concepts and of the mathematicians responsible for these discoveries. Prerequisites: MATH 307 or MATH 320. (F/O)

MATH 477 Materials and Techniques of Teaching Secondary School Mathematics 4(4-0)
Topics and current issues in secondary mathematics education, including materials development, learning theories, instructional and assessment strategies, curriculum, planning and standards. Field experience required. Prerequisites: Acceptance into Teacher Education Program and Math 307 or Math 320. (F/E)

MATH 480 Tutoring Practicum (1-2 VAR)
Participation in tutoring mathematics in the MLC under the guidance of the MLC Director. May be repeated for a maximum of two credits. Prerequisites: C or better in MATH 224 and permission of MLC Director. (S/U grading) (F,S,SS)

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)

MATH 498 Internship (1-6 VAR)
Work experience using the discipline of mathematics under the direction of the selected organization and a faculty member. Prerequisite: junior or senior standing and permission of the department chair. (S/U grading) (F,S,SS)

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 Statistical Methods 3(3-0)
Statistical modeling as a framework for the analysis of experimental data. Emphasis on use of statistical software. Regression, ANOVA, variance components, and chisquare tests. Prerequisite: permission of instructor. (S)

MATH 556 (EN 556) Design and Analysis of Experiments 3(3-0)
Foundations of experimental design, outline efficient methods to implement experiments, develop statistical methods to sort signal from noise, analysis of variance and response surface models. Prerequisite: permission of instructor. (SS,*)

MATH 560 Concepts in Elementary School Mathematics (1-3 VAR)
Problems of the curriculum, methods of teaching and evaluation in the elementary school. Prerequisite: permission of instructor. (SS)

MATH 570 Geometry for Middle School Teachers 3(3-0)
Learning geometry through discovery, using technology and projects. Concepts include measurement in 2-D and 3-D, symmetry, packing, applications, and reasoning. Prerequisites: graduate standing and MATH 124 or permission of instructor. (SS)

MATH 571 Problem-Solving for Middle School Teachers (1-2 VAR)
The course is designed to focus on the process of mathematical problem solving. Students will develop useful heuristics and reflect on problem-solving strategies. Repeatable once for a total of three (3) credits. Prerequisites: graduate standing and MATH 124 or permission of instructor. Upon repeat enrollment completion of Fall offering required before Spring enrollment. (F,S)

MATH 576 Probability and Statistics for Middle School Teachers 3(3-0)
Elementary probability and statistics topics relevant to the middle school mathematics curriculum. Emphasis on exploratory activities and on modeling best teaching practices. Prerequisite: graduate standing and MATH 124 or permission of instructor. (SS)

MATH 577 Concepts in Secondary School Mathematics (1-3 VAR)
Problems of teaching secondary school mathematics; the slow learner, methods, gifted students, evaluation. Prerequisite: permission of instructor. (*)

MATH 591 Special Topics (1-3 VAR) (*)

MATH 595 Independent Study (1-2 VAR) (*)

MATH 598 Graduate Internship (1-4 VAR)
Volunteer or paid work experience under the combined supervision of the selected organization and a faculty member. Prerequisite: graduate standing. (S/U grading) (F,S,SS)

MATH 599 Thesis Research (1-6 VAR)
Prerequisite: graduate student status. (IP and SU grading) (F,S,SS)

MASS COMMUNICATIONS AND CENTER FOR NEW MEDIA (MCCNM)

UNDERGRADUATE COURSES

MCCNM 101 Media and Society 3(3-0)
Survey course that examines mass media within the context of cultural impact, regulation, economic status, and technological innovation. (F,S)

MCCNM 102 Introduction to Electronic Media 3(3-0)
The course focuses upon the history, background, and technologies of the electronic media. (F,S)

MCCNM 132 Website Design and Development 3(2-2)
Introduction to the creation and design of WWW pages, software applications, protocols and standards for implementing and managing WWW sites. Prerequisites: BUSAD 160, CIS 101, MCCNM 101, or permission of instructor. (F,S)

MCCNM 140 Radio Station Operation 1(1-0)
An introduction to radio station operation. Students gain practical experience operating KTSC 89.5, Colorado State University-Pueblo's 10,000 watt radio station. Prerequisite: MCCNM 101. (*)

MCCNM 141 Digital Audio Production 3(2-2)
Concepts, skills and technical processes needed for digital recording/signal processing of aural communication. Emphasis on hard disc and windows based non-linear recording/editing. Prerequisite: MCCNM 101. (F,S)

MCCNM 142 Digital Video Production and Operations 3(2-2)
Concepts, skills and technical facilities involved in production of television programs. Emphasis on the understanding of the technical equipment used in program broadcasting. Prerequisite: MCCNM 101. (F,S) Fee required.

MCCNM 150 Regulation of Electronic Media 3(3-0)
The historical and legal structures of radio, television, cable, and new technologies of mass communications are explored with emphasis upon inventors, innovation, and social development. Prerequisite: MCCNM 101. (F,S)

MCCNM 201 News Writing 3(3-0)
Instruction and practice in basic news writing including the public's right to know, newsworthiness, and writing style. Required of all majors and minors. Word processing skills required. Prerequisites: ENG 101 and 102. (F,S)

MCCNM 202 Feature Writing 3(3-0)
Reporting campus events via interpretive articles, news features, straight features, seasonal stories and in-depth articles. Prerequisite: MCCNM 201. (F,S)

MCCNM 211 Desktop Publishing 3(1-4)
To develop computer publishing and design skills with varied software packages and within PC and Mac environments, preparing students for publication design and editing careers. Prerequisite: word processing literacy. (F,S,SS) Fee required.

MCCNM 216 Advertising 3(3-0)
Principles of advertising on local and national levels for news-papers, magazines, radio and television. (F,S)

MCCNM 222 Broadcast News Writing 3(3-0)
Preparation of copy for radio/television news reports, interviews and commentary. (*)

MCCNM 231 Digital Media Production 3(2-2)
The theory and practice of digital pre-production and post production using the single and multiple camera schemes. (F)

MCCNM 233 Script Writing 3(2-2)
Techniques, styles, formats, treatments, outlines, and scenarios for script forms used in the electronic media are covered with emphasis upon preparing scripts for production. Prerequisite: MCCNM 201. (F,S)

MCCNM 235 (WS 235) Women and Media 3(3-0)
The historical and cultural implications of the mass media's portrayal of women and the extent of their media participation from colonial to contemporary times. (*)

MCCNM 238 Multimedia Applications 3(2-2)
Introduction to the principles and applications of digital multimedia with special emphasis on animation, digital audio and video as well as interface design. Prerequisite: MCCNM 132. (S)

MCCNM 240 Public Relations 3(3-0)
Historical, theoretical and practical approach to contemporary public relations focusing on the public relations process, communication strategies, public, and organizational distinctions. (F,S)

MCCNM 250 Media Lab (1-3 VAR)
A laboratory course for students involved in University publications and campus broadcast operations. May be repeated for up to four credits. Prerequisite: permission of instructor. (F,S,SS)

MCCNM 251 Sports Writing and Statistics 3(2-3)
Study and practical application of sports writing and statistics; emphasis on press box experience at intercollegiate athletic events. Repeatable once. Pre-requisites: MCCNM 201 and 202. (*)

MCCNM 265 History of Journalism 3(3-0)
History of the press in America from colonial times to the present day; political and economic impact of newspapers and magazines during the 19th and 20th centuries. (*)

MCCNM 301 Editorial Writing 3(3-0)
Study of editorial page management and policy, with emphasis on preparation of editorials, columns and critical reviews. Prerequisites: MCCNM 201 and 202. (*)

MCCNM 302 Advertising Writing 3(3-0)
Copy writing essentials and formats for print, broadcast and direct mail advertising. Emphasis on developing writing techniques for practical application in both retail and product advertising. Prerequisite: MCCNM 216 or permission of instructor. (S)

MCCNM 305 News Reporting 3(3-0)
Course covers the principles and practices, skills and ethics of professional beat and general assignment news reporting – specifically in-depth interviewing and other news gathering techniques. Prerequisites: MCCNM 201 and 202. (*)

MCCNM 310 Advanced Desktop Publishing 3(2-2)
Advanced study of electronic publishing and design, emphasizing process color, electronic document creation, on-line publishing. Prepares students for advertising, publication design, production and editing careers. Prerequisite: MCCNM 211 or permission of instructor. Fee required. (*)

MCCNM 311 Copy Editing and Makeup 3(3-0)
News evaluation, copy reading, rewriting, headline writing, page makeup and similar duties of the newspaper copy editor. Prerequisites: MCCNM 201, 202, and 211. (F,S)

MCCNM 317 Advertising Strategy 3(3-0)
Seminar emphasizing tactics and strategies of advertising planning, utilizing media techniques, marketing posture and creative media buying. Prerequisites: MCCNM 216 and 316. (S)

MCCNM 319 Direct Advertising 3(3-0)
An advanced course stressing the philosophy, objectives, content and development of direct response advertising, particularly direct mail and computer-generated messages. Prerequisite: MCCNM 216. (*)

MCCNM 320 Broadcast Station Programming 3(3-0)
Program types used on broadcast stations; analysis of network structure and local station programs; ethical requirements in programming. Prerequisites: MCCNM 141, 142, and 222. (F,S)

MCCNM 321 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. Prerequisite: MCCNM 240. (F)

MCCNM 330 (WS 330) Gender and Film 3(3-0)
A discussion course which examines gender roles in theatrical and documentary film while considering the perspective of producers, actors and spectators and salient film theories. Prerequisite: upper division standing in MCCNM or Women's Studies. (*)

MCCNM 336 Interactive Media and Interface Design 3(3-0)
An overview of interactive media systems and the computer applications used to create interactive media content. Prerequisite: MCCNM 101, CIS 101 or 110. (F)

MCCNM 338 Global Communications 3(3-0)
The student will explore the technological concepts underlying modern global communications systems and the role that those technologies and systems play in our global community. Prerequisite: New Media Tract or permission of instructor. (*)

MCCNM 350 Advanced Media Lab (1-3 VAR)
An advanced laboratory course for students involved in University publications and campus broadcast operations. May be repeated for up to 8 credits. Prerequisites: junior or senior standing; permission of instructor. (F,S,SS)

MCCNM 370 (SW 370) Non-Profit Organizations and Communication 3(3-0)
A seminar course using cooperative teaching that integrates theory and practice to examine the basic elements of nonprofit organizations from economic, political, and social perspectives. Prerequisite: sophomore standing. (SS)

MCCNM 382 Digital Media Post Production 3(2-2)
The theory and practice of digital post production using nonlinear editing. Students will use their production skills in a variety of community based projects. Prerequisite: MCCNM 142. (S)

MCCNM 401 Digital Photographic Procedures 4(3-2)
A course in applied digital imaging for mass communications print and web publications. Emphasis is on digital image acquisition, enhancement and creative application using computer software. Prerequisite: junior or senior standing. (SS)

MCCNM 402 Photojournalism 4(3-2)
Practical course in pictorial reporting; emphasis on spot news feature, picture stories and photographic essays. Prerequisite: MCCNM 401 (*)

MCCNM 411 Media Law 3(3-0)
Ethical and legal factors of mass communications related to the structure and substance of laws at federal, state and local levels, including freedoms, restraints and contemporary issues. Prerequisite: junior or senior standing. (F,S)

MCCNM 415 Theories of Mass Communications 3(3-0)
Application of information theories to mass communication problems. Nature of the communication process in groups and between mass media and audiences. Contribution of theoretical concepts to solving specific problems. Prerequisite: senior standing or permission of instructor. (*)

MCCNM 422 Writing for Public Relations 3(3-0)
A specialized course in persuasive writing techniques in different formats. Emphasis is on print and electronic news releases, public service announcements, brochures, news-letters, speeches, and proclamations. Prerequisite: MCCNM 201 and MCCNM 240. (S)

MCCNM 425 Audience Research Methodology 3(3-0)
Generalized research methodology course. Effective and appropriate research tools to define and describe various publics contained within the mass audience. Emphasis on sampling practices, encoding and interpretation of results. Pragmatic task activities via Nielson, Arbitron, SRDS, content analysis and related data sources. (F,S)

MCCNM 430 Integrated Communications Campaigns 3(3-0)
The course examines the organization, structure, components and preparation of an integrated communication campaign focusing on advertising, public relation, sales promotion and direct response. Prerequisite: MCCNM 216 and MCCNM 240. (F)

MCCNM 440 (ENG 440) Magazine Writing 3(3-0)
Instruction and practice in writing nonfiction magazine articles, with emphasis on story research and market selection. Prerequisites: MCCNM 201 and 202. (*)

MCCNM 445 Reporting Public Affairs 3(3-0)
Instruction and practice in reporting important issues in areas such as crime, courts, local and state government. Prerequisites: MCCNM 201 and 202. (*)

MCCNM 450 Film Criticism in the Media 3(3-0)
The role and function of the film critic in television and print journalism, with emphasis on writing the critical review. Prerequisite: senior standing. (*)

MCCNM 490 Special Projects 3(0-3)
Individualized instruction within a special interest area, under supervision of a member of the department. Repeatable once. Prerequisite: junior or senior standing, or permission of instructor. (F,S,SS)

MCCNM 491 Special Topics (1-3 VAR)
Prerequisite: junior or senior standing, or permission of instructor. (F,S)

MCCNM 493 Seminar 3(3-0)
Seminar devoted to special problems in mass media; emphasis on interrelationships of media, understanding media, and the role of criticism. Prerequisite: senior standing. (F,S)

MCCNM 494 Field Experience (3-10 VAR)
A semester-long internship. Student performs the professional duties required by the cooperating commercial mass medium, business or public service agency. May be taken for a maximum of 8 hours. Prerequisite: junior or senior standing, minimum of 30 hours in major, or permission of program chair. (F,S,SS)

MCCNM 495 Independent Study 2(0-2)
Prerequisite: junior or senior standing, or permission of instructor. (F,S)

GRADUATE COURSE

MCCNM 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

MECHANICAL ENGINEERING (ME)

UNDERGRADUATE COURSES

ME 250 Computer Applications in Engineering 2(2-0)
Use of digital computers in instrumentation, control, and analysis. Prerequisites: EN 105 and MATH 126. (S)

MECHANICAL ENGINEERING TECHNOLOGY (MET)

UNDERGRADUATE COURSES

MET 105 It's a Material World 4(3-2)
Studies and laboratory experiments on modern materials, their behavior and their role in the environment. Review of materials' impact on society. (F,S)

MET 111 Introduction to Drafting 3(0-6)
Professional drafting techniques, lettering, line quality, scales and measurements to include metric, geometric constructions, orthographic projections, technical sketching, sectioning, isometric and auxiliary views. (F,S)

MET 112 Computer-aided Drafting 3(1-4)
Computer-aided drafting to include part modeling - create fully parametric feature-based models and generate engineering drawing. Assembly modeling – create assemblies and subassemblies. Prerequisite: MET 111 or equivalent experience. (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, ET 226 and MATH 126. (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: ET 226, PHYS 202 and MATH 126. (F)

MET 352 Design of Machine Elements 3(2-2)
Fundamental concepts in the correct design of the separate elements which compose machines, application of properties and mechanics of materials modified by practical considerations. Prerequisite: ET 206. (F)

MET 356 Basic Design Principles 2(2-0)
A study of the progressive stages of investigating, designing, developing, building and testing of prototypes or models of mechanical processes or products. Prerequisite: MET 352. (S)

MET 361 Computer Integrated Manufacturing 3(2-2)
A study of computer control in the manufacturing process. Laboratory in operation of computer control processes. Prerequisites: MET 204 and MATH 124. (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 124. (S)

MET 441 Thermal and Fluid Principles II 3(2-2)
A study of the controlling factors that influence the design of thermal and fluid systems. Conduct experiments to confirm effects on these systems. Prerequisite: MET 341. (S)

MET 442 Design of Energy Systems 3(2-2)
A study of applied technology topics in the conversion, storage, and use of a variety of energy sources. Experimental study of selected energy technologies. Prerequisite: MET 441. (F)

MET 451 Industrial Robotics 3(2-2)
An inspection of the history of robotics. Study of control and application of robotics in society. Laboratory in programming and operation of robotics. Prerequisite: permission of instructor. (F)

MET 452 Heating, Ventilating and Air Conditioning 3(2-2)
Principles and applications of heating, ventilation and air-conditioning (HVAC). Extensive experimentation with a climate controlled laboratory to measure HVAC effectiveness. Prerequisite: MET 341. (S)

MET 456 Senior Project 2(1-2)
The design, analysis, and fabrication of a mechanical engineering technology project by student teams. Prerequisite: MET 356. (F)

MET 460 Instrumentation and Control Systems 3(2-2)
A study of the use of instrumentation in experimental measurements, laboratory and production environments, and control of processes. Laboratory study of instrumentation and control. Prerequisites: EET 250 and ET 206. (F)

MET 491 Special Topics (1-3 VAR)
Prerequisite: junior standing in MET. (*)

MET 493 Seminar (1-3 VAR)
Prerequisite: junior standing in MET. (*)

MET 495 Independent Study (1-3 VAR)
Prerequisite: junior standing in MET. (F,S,SS)

MET 496 Cooperative Education Placement (1-4 VAR)
Work experience under the direction of field supervisor and faculty member. Prerequisites: permission of co-op coordinator. (F,S,SS)

MANAGEMENT (MGMT)

UNDERGRADUATE COURSES

MGMT 201 Principles of Management 3(3-0)
Managerial process of planning, organizing, leading, decision-making, and controlling. Modern management techniques will be emphasized. Prerequisite: BUSAD 101 or permission of instructor for non-business majors. (F,S,SS)

MGMT 301 Organizational Behavior 3(3-0)
Team-work, individual and group behavior, motivation, work design, communication, decision-making, leadership, and organizational culture. Prerequisites: MGMT 201, junior standing. (F,S,SS)

MGMT 311 Operations and Quality Management 3(3-0)
Managerial perspective of the operations and quality functions, use of analytical tools to solve operations and quality problems. Prerequisites: MGMT 201, BUSAD 265 or MATH 156, and junior standing. (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. Prerequisites: MGMT 201 and junior standing. (*)

MGMT 349 Management of Service Businesses 3(3-0)
Management of service organizations, with emphasis on the health delivery, tourism, resort, and hospitality industries. Prerequisites: MGMT 201 or permission of instructor for non-business majors and junior standing. (*)

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. Prerequisites: MGMT 201 and junior standing. (*)

MGMT 368 Project Management 3(3-0)
Project planning, control, management and evaluation. Use of project planning software. Prerequisites: MGMT 201 and junior standing. (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)
In-depth analysis of the various environment, management, accounting, finance, and legal considerations required for business plan development by an entrepreneur or small business owner. Prerequisites: Senior standing, BUSAD 302, FIN 330, MGMT 301, MGMT 311, MKTG 340, or permission of instructor. (*)

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 Quality Management 3(3-0)
Concepts and techniques of quality improvement processes. Defining quality in customer satisfaction terms and improving quality of products and service through modern techniques. Prerequisite: MGMT 311. (*)

MGMT 475 International Management 3(3-0)
An analysis of management opportunities and challenges in the global environment and the evaluation and formulation of strategies of firms operating and expanding internationally. Prerequisites: MGMT 301 and 311. (F,S,SS)

MGMT 480 Small Business Studies 3(3-0)
Integrating prior studies in business into a realistic approach to assist in solving problems faced by selected firms and organizations in the community. Prerequisites: senior standing in the School of Business and completion of all foundation and fundamentals courses. (*)

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. Pre-requisites: 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 foundation and fundamentals courses. (*)

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 grading) Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

MGMT 501 Fundamentals of Management 3(3-0)
This class familiarizes students with the managerial process and multiple specific topics related to the managerial function. Prerequisite: admission to MBA. (*)

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: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (*)

MGMT 575 International Management 3(3-0)
An advanced analysis of management opportunities and challenges in the global environment and the evaluation and formulation of strategies of firms operating and expanding internationally. Prerequisites: MGMT 520 and BUSAD 502. (F,S,SS)

MGMT 585 Management Policy and Strategy 3(3-0)
Critical analysis of the policy/strategy field. This course integrates the business core disciplines to explore ways that strategy is formed in contemporary business organizations. Case Method used extensively. Prerequisite: admission to MBA or permission of MBA Director 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: admission to MBA or permission of MBA Director. (*)

MGMT 598 Internship (1-3 VAR)
Supervised field work in selected public, private, government organizations, supplemented by written reports. Prerequisite: admission to MBA or permission of MBA Director. (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. Prerequisite: junior standing. (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 440 Marketing Research 3(3-0)
Fundamental techniques. Practical experience in research methodology: planning an investigation, questionnaires, sampling, interpretation of results, report preparation. Prerequisites: MKTG 340 and BUSAD 265. (*)

MKTG 441 Marketing Strategies 3(3-0)
Detailed consideration of process of formulating and implementing strategies in marketing. Major emphasis on markets, channels of distribution, and product analysis. Prerequisites: MKTG 340, 440, second semester seniors. (*)

MKTG 475 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 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 grading) Prerequisites: junior or senior standing in School of Business and permission of internship coordinator. (*)

GRADUATE COURSES

MKTG 501 Fundamentals of Marketing 1.5(1.5-0)
This class prepares students in the conception, promotion, pricing and distribution of ideas, goods, and services from a marketing perspective. Prerequisite: admission to MBA. (*)

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: admission to MBA or permission of MBA Director. (*)

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: admission to MBA or permission of MBA Director. (F)

MKTG 575 International Marketing 3(3-0)
An advanced analysis of marketing opportunities and challenges in the global environment and the evaluation and formulation of strategies of firms operating and expanding internationally. Prerequisite: MKTG 540. (F,S,SS)

MKTG 591 Special Topics 3(3-0) (*)

MKTG 592 Research (1-6 VAR)
The student will work under the close supervision of a graduate faculty member in basic or applied research resulting in a thesis or report of high academic quality. (IP and S/U grading) (F,S,SS)

MKTG 595 Independent Study (1-3 VAR)
Individual study of a subject determined by the instructor and student with permission of the director. Prerequisite: admission to MBA or permission of MBA Director. (F,S,SS)

MKTG 598 Internship (1-3 VAR)
Supervised field work in selected public, private government organizations, supplemented by written reports. Prerequisite: admission to MBA or permission of MBA Director. (S/U grading) (*)

MKTG 599 Thesis Research (1-6 VAR) (*)

MILITARY SCIENCE AND LEADERSHIP (MSL)

UNDERGRADUATE COURSES

MSL 101 Leadership and Personal Development 1(1-0)
Introduces students to the personal challenges and competencies that are critical for effective leadership. Students learn skills that relate to leadership, officership and the Army. Field work required once a week. (F)

MSL 102 Introduction to Tactical Leadership 1(1-0)
Provides an overview of leadership fundamentals such as problem solving, listening skills and writing. Students explore dimensions of leadership in the context of classroom instruction and practical exercises. Field work required once a week. (S)

MSL 201 Innovative Team Leadership 2(2-0)
Explores the dimensions of creative tactical leadership strategies and styles by examining team dynamics and leadership theories. Students practice team building exercises during leadership labs. Field work required once a week. (F)

MSL 202 Foundations of Tactical Leadership 2(2-0)
Examines the challenges of leading tactical teams in the contemporary operating environment (COE). Highlights terrain analysis, operation orders and adaptive leadership. Field work required once a week. (S)

MSL 301 Adaptive Tactical Leadership 3(3-0)
Challenges students to study, practice and evaluate adaptive leadership skills in scenarios related to squad tactical operations. Students receive specific feedback on their leadership skills. Field work required once a week and physical training required three times per week. Prerequisite: ROTC Basic Course Credit. (F)

MSL 302 Leadership in Changing Environments 3(3-0)
Employs increasing leadership challenges to build skills in leading tactical operations at the platoon level. Students learn basics of stability operations and conduct military briefings. Field work required once a week. Physical training required three times/week. Prerequisite: ROTC Basic Course Credit. (S)

MSL 303 Advanced Camp 6(0-12)
Students are assigned to a unit, placed in leadership positions, and evaluated on how they work in that unit. Mandatory for Advanced Course ROTC students. Prerequisites: MSL 301 and MSL 302. (SS)

MSL 401 Developing Adaptive Leaders 3(2-2)
Develops proficiency in planning, executing and assessing complex operations by functioning as a staff; includes basics of risk management, ethical decision-making and military justice. Field work required once a week. Physical training required three times per week. Prerequisite: ROTC Basic Course Credit. (F)

MSL 402 Leadership in a Complex World 3(2-2)
Explores the dynamics of leading in complex situations of the current operating environment (COE). Includes advanced instruction in law of war and interaction with non-governmental organizations (NGOs). Field work once weekly. Physical training required three times per week. Prerequisite: ROTC Basis Course Credit. (S)

MSL 485 Special Studies in Leadership 3(3-0)
Course for students participating in the Army ROTC Advanced Course that want to pursue further studies in military leadership and group dynamics. May be repeated for credit. Prerequisite: by arrangement with the professor of Military Science only. (F,S)

MUSIC (MUS)

UNDERGRADUATE COURSES

MUS 100 Music Fundamentals I: Notation 2(2-0)
An overview of the basic elements and principles of music notation and their application to performance. (F)

MUS 101 Music Performance Symposium I (0, 1 VAR)
Level one course in observation and critique of solo and small ensemble performances; also includes lectures, clinics, demonstrations, and performance preparation. Report required for credit. (S/U grading) (F,S)

MUS 102 Concert Choir I 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the choral ensemble. Additional rehearsals and performances are required. (Level I). Prerequisite: permission of instructor. (F,S)

MUS 103 Music and Computer Technology I 1(1-0)
Introduction to the use of computer technology in music, including digital audio, MIDI, composing, sequencing, performing, and printing, utilizing various software applications. Prerequisite: permission of instructor. (F,S)

MUS 105 Music Fundamentals II: Foundations 2(2-0)
A study of the basic principles of music theory relating to musical composition. Prepares students for success in the Music Theory sequence. (F,S)

MUS 108 Vocal Jazz Ensemble I 1(0-2.5)
Level one secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal jazz ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 109 Vocal Ensemble I 1(0-2.5)
Level one secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 112 Wind Ensemble I 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the wind band. Additional rehearsals and performances are required. (Level I). Prerequisite: permission of instructor. (F,S)

MUS 113 Vocal Techniques and Diction 1(0-2)
Instruction in the fundamentals of singing from a pedagogical approach. Additional basic instruction in foreign language pronunciation. Primarily intended for students in Music Education. (F)

MUS 114 Brass Ensemble I 1(0-2.5)
Level one music ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of brass instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

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 120 History of Jazz 3(3-0)
Study of historical trends and developments in jazz, including significant performers, styles, composers, and compositions. (*)

MUS 121 Chamber Ensemble I 1(0-2.5)
Level one secondary ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of string instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 124 Percussion Ensemble I 1(0-2.5)
Level one ensemble specializing in rehearsal, study, and performance of appropriate literature for combinations of percussion instruments. Additional rehearsals and performance activities are required. Prerequisite: permission of instructor. (F,S)

MUS 127 Functional Piano I: Beginning 1(0-2)
For students with no piano experience. Introduces fundamentals, with emphasis on providing skills necessary for successful completion of the Proficiency Exam. May be repeated. (F,S)

MUS 130 Guitar Class 1(0-2)
Basic instruction in guitar technique in a group setting. Application of both melodic and chordal (rhythmic) media. Primarily for the non-music major/minor. (*)

MUS 132 Guitar Ensemble, Classical I 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate classical guitar literature. Additional rehearsals and performance activities are required. (Level I). Prerequisite: permission of instructor. (F,S)

MUS 134 Woodwind Ensemble I 1(0-2.5)
Level one ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of woodwind instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 136 Guitar Ensemble, Jazz I 1(0-2.5)
Level one rehearsal, study and public performance of selected appropriate non-classical guitar literature. Additional rehearsals and performance activities are required. Prerequisite: permission of instructor. (F,S)

MUS 142 Piano Ensemble I 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate piano ensemble literature. Additional rehearsals and performance activities are required. (Level I). Prerequisite: permission of instructor. (F,S)

MUS 144 String Orchestra I 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the string orchestra. Additional rehearsals and activities are required. (Level I). Prerequisite: permission of instructor. (F,S)

MUS 150 Music Theory I 3(3-0)
Introduction to diatonic harmony and part-writing, including basic musical form, structure and analysis. Based on 18th century "common practice", includes analysis of appropriate representative literature. Prerequisites: successful completion of MUS 100 and 105 recommended (or satisfactory completion of theory placement examination). Corequisite: MUS 151. (F)

MUS 151 Aural Skills 1(0-2)
Development of basic aural skills, including diatonic harmony, interval recognition, singing at sight, error detection, and rhythmic, melodic, and harmonic discriminatory listening. Corequisite: MUS 150. (F,S)

MUS 152 Jazz Improvisation I 2(2-0)
Introduction to theory and techniques of improvisation in various styles of jazz. Includes developing familiarity with various representative jazz artists. May be repeated for credit. Prerequisite: permission of instructor. (F)

MUS 154 Jazz Ensemble I 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the jazz ensemble. Additional rehearsals and performances are required. (Level I). Prerequisite: permission of instructor. (F,S)

MUS 160-179 Applied, non major 1(0-.5)
Applied music study in various performance areas for the non-music major. One half-hour lesson per week; time to be arranged with the instructor. Prerequisite: permission of instructor. (F,S)—(160-Violin) (161-Viola) (162-Cello) (163-Bass) (164-Flute) (165-Oboe) (166-Bassoon) (167-Clarinet) (168-Saxophone) (169-Voice) (170-Trumpet) (171-French Horn) (172-Trombone) (173-Euphonium) (174-Tuba) (175-Percussion) (176-Piano) (177-Organ) (178-Classical Guitar) (179-non-Classical Guitar).

MUS 201 Music Performance Symposium II (0, 1 VAR)
Level two course in observation and critique of solo and small ensemble performances; also includes lectures, clinics, demonstrations, and performance preparation. Report required for credit. (S/U grading) (F,S)

MUS 202 Concert Choir II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the choral ensemble. Additional rehearsals and performances are required. (Level II). Prerequisite: permission of instructor. (F,S)

MUS 203 Electronic Music 2(1-2)
In-depth study of and experiences with a variety of electronic music hardware and software. Includes sound recording and engineering practices. (*)

MUS 208 Vocal Jazz Ensemble II 1(0-2.5)
Level two secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal jazz ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 209 Vocal Ensemble II 1(0-2.5)
Level two secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 210 Music Theory II 3(3-0)
Continuation of MUS 150. Includes four-part diatonic writing, diatonic modulation, and analysis of appropriate representative literature. Prerequisite: successful completion of MUS 150. Corequisite: MUS 211. (S)

MUS 211 Aural Skills II 1(0-2)
Continuation of MUS 151. Continued development of aural skills, including diatonic harmony, interval recognition, singing at sight, error detection, and rhythmic, melodic, and harmonic discriminatory listening. Prerequisite: successful completion of MUS 151. Corequisite: MUS 210. (S)

MUS 212 Wind Ensemble II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the wind band. Additional rehearsals and performances are required. (Level II). Prerequisite: permission of instructor. (F,S)

MUS 214 Brass Ensemble II 1(0-2.5)
Level two music ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of brass instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 221 Chamber Ensemble II 1(0-2.5)
Level two secondary ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of string instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 223 Percussion Techniques 1(0-2)
Instruction in the fundamentals of percussion instruments from a pedagogical approach, enabling students to effectively teach beginners. Primarily intended for students in Music Education. (S/O)

MUS 224 Percussion Ensemble II 1(0-2.5)
Level two ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of percussion instruments. Additional rehearsals and performance activities are required. Prerequisite: permission of instructor. (F,S)

MUS 227 Func. Piano II: Int/Proficiency 1(0-2)
Continuation of MUS 127. Emphasis on providing further skills necessary for successful completion of the Proficiency Exam. May be repeated. Prerequisite: successful completion of MUS 127. (F,S)

MUS 232 Guitar Ensemble, Classical II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate classical guitar literature. Additional rehearsals and performance activities are required. (Level II). Prerequisite: permission of instructor. (F,S)

MUS 233 Woodwind Techniques 1(0-2)
Instruction in the fundamentals of woodwind instruments from a pedagogical approach, enabling students to effectively teach beginners. Primarily intended for students in Music Education. (S/E)

MUS 234 Woodwind Ensemble II 1(0-2.5)
Level two ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of woodwind instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 236 Guitar Ensemble, Jazz II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate non-classical guitar literature. Additional rehearsals and performance activities are required. (Level II). Prerequisite: permission of instructor. (F,S)

MUS 242 Piano Ensemble II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate piano ensemble literature. Additional rehearsals and performance activities are required. (Level II). Prerequisite: permission of instructor. (F,S)

MUS 243 String Techniques 1(0-2)
Instruction in the fundamentals of stringed instruments from a pedagogical approach, enabling students to effectively teach beginners. Primarily intended for students in Music Education. (S/O)

MUS 244 String Orchestra II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the string orchestra. Additional rehearsals and activities are required. (Level II). Prerequisite: permission of instructor. (F,S)

MUS 250 Music Theory III 3(3-0)
A continuation of MUS 210. Applications of chromatic and altered harmonies of the Romantic, post-Romantic and pre-modern compositions within functional harmonic idioms. Prerequisites: successful completion of MUS 150 and 210. Corequisite: MUS 251. (F)

MUS 251 Aural Skills III 1(0-2)
Continuation of MUS 211. Continued development of aural skills, including non-diatonic harmony, interval recognition, singing at sight, error detection, and rhythmic, melodic, and harmonic discriminatory listening. Prerequisite: successful completion of MUS 211. Corequisite: MUS 250. (F)

MUS 252 Jazz Improvisation II 2(2-0)
Continuation of instruction in theory and techniques of improvisation in various styles of jazz. Includes developing familiarity with various representative jazz artists. May be repeated for credit. Prerequisites: successful completion of MUS 152 or permission of instructor. (S)

MUS 253 Brass Techniques 1(0-2)
Instruction in the fundamentals of brass instruments from a pedagogical approach, enabling students to effectively teach beginners. Primarily intended for students in Music Education. (F/E)

MUS 254 Jazz Ensemble II 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the jazz ensemble. Additional rehearsals and performances are required. (Level II) (F,S)

MUS 260-279 Applied Music, Major 2(0-1)
In-depth applied study in various performance areas for the Freshman and Sophomore music major (may be repeated at Sophomore level). Prerequisites: declared music major, permission of instructor. (F,S)—(260-Violin) (261-Viola) (262-Cello) (263-Bass) (264-Flute) (265-Oboe) (266-Bassoon) (267-Clarinet) (268-Saxophone) (269-Voice) (270-Trumpet) (271-French Horn) (272-Trombone) (273-Euphonium) (274-Tuba) (275-Percussion) (276-Piano) (277-Organ) (278-Classical Guitar) (279-non-Classical Guitar).

MUS 291 Special Topics (1-3 VAR) (*)

MUS 301 Music Performance Symposium III (0, 1 VAR)
Level three course in observation and critique of solo and small ensemble performances; also includes lectures, clinics, demonstrations, and performance preparation. Report required for credit. (S/U grading) (F,S)

MUS 302 Concert Choir III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the choral ensemble. Additional rehearsals and performances are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 303 Music and Computer Technology II 1(0-2)
Continued study in the use of computer technology in music, including digital audio, MIDI, composing, sequencing, performing, and printing, utilizing various software applications. Prerequisite: MUS 103. (F,S)

MUS 305 Music History I 3(3-0)
An in-depth study of music history and representative literature from Antiquity to the Classical period. Prerequisites: successful completion of MUS 118, 150, 210. (S/E)

MUS 308 Vocal Jazz Ensemble III 1(0-2.5)
Level three secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal jazz ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 309 Vocal Ensemble III 1(0-2.5)
Level three secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 310 Music Theory IV 3(3-0)
A continuation of MUS 250. A harmonic study of the emergence of 20th century compositional techniques from chromatic functional harmonic schemes. Prerequisite: successful completion of MUS 250. Corequisite: MUS 311. (S)

MUS 311 Aural Skills IV 1(0-2)
Continuation of MUS 251. Continued development of aural skills, including chromatic harmony, interval recognition, singing at sight, error detection, and rhythmic, melodic, and harmonic discriminatory listening. Prerequisite: successful completion of MUS 251. Corequisite: MUS 310. (S)

MUS 312 Wind Ensemble III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the wind band. Additional rehearsals and performances are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 314 Brass Ensemble III 1(0-2.5)
Level three music ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of brass instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 321 Chamber Ensemble III 1(0-2.5)
Level three secondary ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of string instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 323 Diction for Singers 3(3-0)
A course in reading pronunciation of Italian, French, German, Latin, and Spanish for singers. Utilizes the International Phonetic Alphabet. Primarily for vocal music students. (F/O)

MUS 324 Percussion Ensemble III 1(0-2.5)
Level three ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of percussion instruments. Additional rehearsals and performance activities are required. Prerequisite: permission of instructor. (F,S)

MUS 332 Guitar Ensemble, Classical III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate classical guitar literature. Additional rehearsals and performance activities are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 334 Woodwind Ensemble III 1(0-2.5)
Level three ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of woodwind instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 336 Guitar Ensemble, Jazz III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate non-classical guitar literature. Additional rehearsals and performance activities are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 340 Elementary Music Methods 3(3-0)
Comprehensive study in materials, techniques, methods, and problem-solving techniques for the teacher of elementary music in the public schools. Prerequisite: admission to Teacher Education Program. (F/O)

MUS 342 Piano Ensemble III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate piano ensemble literature. Additional rehearsals and performance activities are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 344 String Orchestra III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the string orchestra. Additional rehearsals and activities are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 346 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 350 Theory V-Composition and Analysis 3(3-0)
Analysis and application of compositional techniques in music from all style periods, including form, harmony, and style. Prerequisite: successful completion of MUS 310. (*)

MUS 354 Jazz Ensemble III 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the jazz ensemble. Additional rehearsals and performances are required. (Level III). Prerequisite: permission of instructor. (F,S)

MUS 355 Music History II 3(3-0)
An in-depth study of music history and representative literature from the Classical period to the present. Prerequisite: successful completion of MUS 305. (S/E)

MUS 357 Orchestration and Arranging 3(3-0)
Instruction and application in techniques of scoring music for various combinations of musical mediums. Includes scoring for strings, woodwinds, brasses, percussion, and voices. Prerequisites: successful completion of MUS 150, 151, 210, 211, 250, 251, 310, 311. (S/O)

MUS 358 Basic Conducting 2(2-0)
Instruction in the conducting of music, with an emphasis on building basic skills and techniques. Prerequisites: successful completion of MUS 150, 151, 210, 211, 250, 251, 310, 311, 357. (F)

MUS 359 Advanced Conducting 2(0-1)
Continuing instruction in the conducting of music in the student's choice of emphasis areas. Individualized instruction in the form of one private lesson per week. Prerequisite: successful completion of MUS 358. (F,S)

MUS 360-379 Applied Music, Major 2(0-1)
In-depth applied study in various performance areas for the Junior music major. Prerequisites: admission to upper-class status; declared music major, permission of instructor. (F,S)—(360-Violin) (361-Viola) (362-Cello) (363-Bass) (364-Flute) (365-Oboe) (366-Bassoon) (367-Clarinet) (368-Saxophone) (369-Voice) (370-Trumpet) (371-French Horn) (372-Trombone) (373-Euphonium) (374-Tuba) (375-Percussion) (376-Piano) (377-Organ) (378-Classical Guitar) (379-non-Classical Guitar).

MUS 380-399 Junior Recital 2(0-1)
In-depth applied study in various performance areas for the Junior music major, leading to the performance of a solo or joint recital (see Music Student Handbook). Prerequisites: admission to upper-class status; faculty approval; permission of instructor. (F,S)—(380-Violin) (381-Viola) (382-Cello) (383-Bass) (384-Flute) (385-Oboe) (386-Bassoon) (387-Clarinet) (388-Saxophone) (389-Voice) (390-Trumpet) (391-French Horn) (392-Trombone) (393 Euphonium) (394-Tuba) (395-Percussion) (396-Piano) (397-Organ) (398-Classical Guitar) (399-non-Classical Guitar).

MUS 401 Music Performance Symposium IV (0, 1 VAR)
Level four course in observation and critique of solo and small ensemble performances; also includes lectures, clinics, demonstrations, and performance preparation. Report required for credit. (S/U grading) (F,S)

MUS 402 Concert Choir IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the choral ensemble. Additional rehearsals and performances are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 408 Vocal Jazz Ensemble IV 1(0-2.5)
Level four secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal jazz ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 409 Vocal Ensemble IV 1(0-2.5)
Level four secondary music ensemble specializing in the rehearsal, study, and public performance of appropriate vocal ensemble literature. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 412 Wind Ensemble IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the wind band. Additional rehearsals and performances are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 414 Brass Ensemble IV 1(0-2.5)
Level four music ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of brass instruments. Additional rehearsals and performance activities required. Prerequisites: permission of instructor. (F,S)

MUS 420 Counterpoint 3(3-0)
A re-creative course in 16th-, 18th-, or 20th-century contrapuntal styles. Composing music in two, three and four voices as appropriate to the particular period. Prerequisites: successful completion of MUS 150, 210, 250, 310. (*)

MUS 421 Chamber Ensemble IV 1(0-2.5)
Level four secondary ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of string instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 424 Percussion Ensemble IV 1(0-2.5)
Level four ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of percussion instruments. Additional rehearsals and performance activities are required. Prerequisite: permission of instructor. (F,S)

MUS 432 Guitar Ensemble, Classical IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate classical guitar literature. Additional rehearsals and performance activities are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 434 Woodwind Ensemble IV 1(0-2.5)
Level four ensemble specializing in the rehearsal, study, and performance of appropriate literature for combinations of woodwind instruments. Additional rehearsals and performance activities required. Prerequisite: permission of instructor. (F,S)

MUS 436 Guitar Ensemble, Jazz IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate non-classical guitar literature. Additional rehearsals and performance activities are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 440 Secondary Music Methods 3(3-0)
Comprehensive study in materials, techniques, methods, and problem-solving techniques for the teacher of choral/ instrumental music in the public schools. Prerequisites: successful completion of MUS 113, 223, 233, 243, 253, admission to Teacher Education Program. (S/O)

MUS 442 Piano Ensemble IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate piano ensemble literature. Additional rehearsals and performance activities are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 444 String Orchestra IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the string orchestra. Additional rehearsals and activities are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 445-449 Applied Music, Major 2(0-1)
In-depth applied study in various performance areas for the Senior music major. Prerequisites: admission to upper-class status; declared music major, permission of instructor. (F,S)—(445-Violin) (446-Viola) (447-Cello) (448-Bass) (449-Flute).

MUS 454 Jazz Ensemble IV 1(0-2.5)
Rehearsal, study, and public performance of selected appropriate literature for the jazz ensemble. Additional rehearsals and performances are required. (Level IV). Prerequisite: permission of instructor. (F,S)

MUS 455-459 Applied Music, Major 2(0-1)
In-depth applied study in various performance areas for the Senior music major. Prerequisites: admission to upper-class status; declared music major, permission of instructor. (F,S)—(455-Oboe) (456-Bassoon) (457-Clarinet) (458-Saxophone) (459-Voice).

MUS 460-469 Applied Music, Major 2(0-1)
In-depth applied study in various performance areas for the Senior music major. Prerequisites: admission to upper-class status; declared music major, permission of instructor. (F,S)—(460-Trumpet) (461-French Horn) (462-Trombone) (463-Euphonium) (464-Tuba) (465-Percussion) (466-Piano) (467-Organ) (468-Classical Guitar) (469-non-Classical Guitar).

MUS 470-489 Senior Recital 2(0-1)
In-depth applied study in various performance areas for the Senior music major, leading to the performance of a solo or joint recital (see Music Student Handbook). Prerequisites: admission to upper-class status; faculty approval; permission of instructor. (F,S)—(470-Violin) (471-Viola) (472-Cello) (473-Bass) (474-Flute) (475-Oboe) (476-Bassoon) (477-Clarinet) (478-Saxophone) (479-Voice) (480-Trumpet) (481-French Horn) (482-Trombone) (483-Euphonium) (484-Tuba) (485-Percussions) (486-Piano) (487-Organ) (488-Classical Guitar) (489-non-Classical Guitar).

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 Ed 3(3-0)
In-depth study of techniques and materials for teaching music in the elementary and middle school. Involvement in research and practical application of approved methods. Prerequisite: graduate standing. (*)

MUS 591 Special Topics (1-3 VAR)
Prerequisite: graduate standing. (*)

MUS 593 Seminar (1-3 VAR)
Practical application of current music techniques to secondary teaching. Prerequisite: graduate standing. (*)

NURSING (NSG)

UNDERGRADUATE COURSES

NSG 207 Nursing Pathophysiology 3(3-0)
Introduction to the basic disease processes of individual body systems. Incorporates nursing assessment/ diagnosis with associated intersystem diseases. Prerequisites: BIOL 206/206L, 223/223L, 224/224L, CHEM 111/111L. (S,SS)

NSG 208 Basic Pharmacology 3(3-0)
Pharmocokinetics, dynamics, therapeutics as well as drug administration and interaction, safety and legal implications are discussed. Prerequisites: BIOL 223/223L, BIOL 224/224L, BIOL 206/206L, CHEM 111/111L. (S,SS)

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)
Provides a bridge for healthcare professionals and students to understand historical, philosophical, and theoretical concepts used in healthcare, professional practice, human needs and nursing process. Prerequisites: ENG 101, ENG 102, Foreign Language, SPCOM 103, PSYCH 151. (S,SS)

NSG 232 Fundamentals of Nursing 3(3-0)
Utilization of the nursing process in meeting primary health needs of individuals. Basic nursing interventions, critical thinking and therapeutic communication are emphasized. Prerequisites: admission into Nursing Program. Prerequisites: all nursing prerequisite and general education courses. Corequisite: NSG 232L. (S,SS)

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,SS)

NSG 282 LPN Bridge to Professional Nursing 2(2-0)
Historical, theoretical and philosophical basis transition from student to PN and RN. Introduction to the program, health care system, nursing process, and human needs. Prerequisites: LPN students are required to take the course in substitution for NSG 231. This course can be substituted for NSG 231 by nursing students electing to take the practical nursing examination after the completion of all junior level courses and ERI examinations. The course is open to all nursing and pre-nursing students. (S,SS)

NSG 283 Inferential Reasoning in Health Care 1(1-0)
Discussion of inferential reasoning as it pertains to the delivery of healthcare. (*)

NSG 284 NSG Framework for Transfer Students 1(1-0)
This course provides transfer students with an introduction to the nursing philosophy, curriculum framework, and human needs, caring, and learning theory. Prerequisites: Transfer credit evaluation by nursing advisor. Must meet current program prerequisites consistent with point of transfer entry or by approval of SAFA committee. (*)

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 295 Independent Study (1-6 VAR) (*)

NSG 302 Health Promotion and Assessment 3(3-0)
Systematic assessment and analysis of individuals needs using the nursing process to develop a plan of care, to educate, and to promote health and wellbeing. Pre or corequisites: NSG 207, 307, or RN. Corequisite: NSG 302L. (SS,F)

NSG 302L Health Promotion and Assessment Lab 1(0-2)
Provides the skills to complete a comprehensive assessment, for educating and promoting health and wellbeing using the nursing process, evidenced based practice and diagnostic reasoning. Pre or corequisites: NSG 207, 307, or RN. Corequisite: NSG 302. (SS, F)

NSG 305 Ethical Issues in Health Care 3(3-0)
Selected theories which influence ethical choice in nursing are presented. Areas of the law and legal systems that affect the public health are included. Current ethical issues related to nursing practice. Prerequisite: permission of instructor. (F,S)

NSG 307 Health and Disease Systems 3(3-0)
Alterations and adaptations of individual body systems to disease processes. Prerequisites: BIOL 223/223L, BIOL 206/206L, BIOL 224/224L, CHEM 111/111L or RN. (S,SS)

NSG 309 Professional Nursing Practice 4(4-0)
Introduction to the philosophy of the Nursing program, and the professional nursing practice theories. Teaching learning theories are examined in relation to nursing practice. Prerequisites: Registered Nurse License. ENG 101, ENG 102, Foreign Language, SPCOM 103, PSYCH 151 or by permission. (SS,F)

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 License. (SS,S)

NSG 312 Nursing Care of Childbearing Families 3(3-0)
Nursing care of the neonate and procreative family during the peri-natal period. Includes health promotion, family theory and human sexuality. Prerequisites: completion of all required 200 level nursing courses. Pre or corequisites: NSG 302/302L, 322/322L. Corequisite: NSG 312L. (F,S)

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 peri-natal period. Corequisite: NSG 312. (F,S)

NSG 322 Nursing Care of the Adult I 3(3-0)
Nursing process directed toward principles of therapeutic nursing care of adult health promotion and with common health problems. Prerequisites: NSG 302/302L, and completion of all required 200 level nursing courses. Corequisites: NSG 322L; NSG 302/302L. (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 Pediatric Nursing 3(3-0)
Nursing care of children and adolescents. Emphasizes the nursing process related to health promotion, maintenance and restoration for the child, adolescent and family. Prerequisites: completion of all required 200 level nursing courses; pre or corequisites: NSG 302/302L, NSG 322/322L. Corequisite: 332L. (F,S)

NSG 332L Pediatric Nursing 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. (F,S)

NSG 351 Research in Nursing 3(3-0)
An introduction to the roles, and methods of research in nursing. Facilitates development of nurses as consumers of research for research based practice. Prerequisites: MATH 156, completion of all required 200 level nursing courses. (S,SS)

NSG 372 Clinical Practicum 3(0-9)
An elective course that provides an opportunity for a concentrated clinical practicum in a variety of patient care settings. Prerequisite: completion of all 300 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. Prerequisites: NSG, 302/302L, 322/322. Corequisite: NSG 382L. (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 required 300 level 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. Prerequisite: completion of all required 300 level nursing courses. Corequisite: NSG 420. (F)

NSG 431 Gerontological Nursing 3(3-0)
Theory for nursing care of older adults. The promotion of healthy aging through utilization of the nursing process is emphasized. Prerequisite: completion of all required 300 level nursing courses. (F,S,SS)

NSG 442 Public Health Nursing 3(3-0)
Theory in application of the nursing process, public health principles and concepts related to communities. Prerequisite: completion of all required 300 level nursing courses. Corequisite: NSG 442L. (F,SS)

NSG 442L Public Health Nursing Lab 3(0-6)
Application of NSG 442. Selected experiences in community health settings. Prerequisite: completion of all required 300 level nursing courses. Corequisite: NSG 442. (F,SS)

NSG 451 Healthcare Management and Issues 3(3-0)
Analyze and apply management & leadership theories used in healthcare. Explore issues and trends related to the healthcare including ethical and legal issues. Prerequisites: completion of NSG 420, NSG 431, and NSG 442. Pre or corequisite: NSG 452. (S,SS)

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. Corequisite: 452L. (S,SS)

NSG 452L Nursing Process: Synthesis Lab 5(0-10)
Application of NSG 452. Synthesis of process and content of nursing in managing client groups and aggregates. Corequisite: NSG 452. (S,SS)

NSG 461 Health Care Issues and Trends 2(2-0)
Issues and trends related to health care including professional, ethical and legal issues. Prerequisites: completion of NSG 420, NSG 431, and NSG 442. Pre or corequisite: NSG 452. (S,SS)

NSG 471 Healthcare Informatics 3(3-0)
The course includes internet use by health care consumers, policy, current and future role of telehealth. Covers informatics, current issues and challenges facing nursing. Prerequisites: completion of all required 300 level nursing courses. Corequisite: NSG 452. (S,SS)

NSG 472 Clinical Practicum II 3(0-9)
Concentrated practicum consisting of application of the nursing process in complex care settings. Prerequisite: NSG 372 or by SAFA committee approval. (S)

NSG 491 Special Topics (1-6 VAR) (*)

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 506 Roles, Policy & Issues 3(2.5-2)
Exploring advanced practice roles, the potential impact, trends, issues and benefits to the public and the effect of policy and politics. Observation hours required. Prerequisites: admission to Graduate Nursing Program or by permission. (F)

NSG 508 Advanced Practice Theory 3(3-0)
Examines the theoretical basis of nursing which guides advanced nursing practice. Theories are evaluated for their applicability to practice, research, education, and administration. Prerequisites: admission to Graduate Nursing Program or by permission. (F)

NSG 550 Health Policy & Finance 3(3-0)
Analyze and utilize the historical, political, economic, and financial concepts in the development of one's practice and the advanced practice role. Prerequisites: admission to Graduate Nursing Program or by permission. (SS)

NSG 551 Health and Well Being 3(2-4)
Health and psychological wellbeing of clients in the context of primary, secondary and tertiary prevention in advanced practice. Clinical hours required. Prerequisites: graduate nursing core courses. (SS)

NSG 552 Advanced Pathophysiology 3(3-0)
Comprehensive scientific background and understanding of pathophysiology as it relates to client's needs and assessment across the lifespan. Prerequisites: admission to Graduate Nursing Program or by permission. (S)

NSG 561 Advanced Pharmacology 3(3-0)
Prepares the advanced clinical practitioner for drug therapy management in the diagnosis and treatment of clients across the lifespan. Prerequisites: admission to Graduate Nursing Program or by permission. (S)

NSG 562 Advanced Assessment 3(2-4)
Data collection, organization, recording, physical and psychosocial assessment and communication of data reflecting the health status of the client. Clinical hours required (60 hrs). Prerequisites: admission to Graduate Nursing Program or by permission. (S)

NSG 571 Healthcare Informatics 3(3-0)
The course includes internet use by health care consumers, policy, current and future role of telehealth. Covers informatics, current issues and challenges facing nursing. Prerequisites: admission to the Graduate Nursing Program or by permission by graduate SAFA committee. (S,SS)

NSG 575 Curriculum Development 2(2-0)
Historical foundations, theories and conceptual frameworks and processes for curriculum development are explored for all levels of nursing programs and continuing nursing education programs. Prerequisites: admission to Masters Program or by permission. (SS)

NSG 576 Teaching & Instruction in Nursing 2(2-0)
Teaching methods, evaluation tools, and the complexities of the educator role are explored in seminar discussions. Prerequisites: admission to Masters Program or by permission. (SS)

NSG 585 Acute/Chronic/Emergent Health Needs I 8(4-16)
Practitioner's role in the diagnosis and management of client's needs in fluid-electrolytes, cardiovascular-respiratory, nephrology-dialysis, transplants, GI/GU, endocrinology, nutrition, and genetics (240 clinical hours). Prerequisites: completion of all core graduate nursing courses. (F)

NSG 586 Acute/Chronic/Emergent Health Needs II 8(4-16)
Role of the practitioner in the diagnosis and management of client's needs for neuro-trauma, oto-ophthalmology, oncology, women/men's health, orthopedics, immunology, palliation, gerontology (240 clinical hours). Prerequisites: completion of all core graduate nursing courses. (SS)

NSG 587 Synthesis Experience 9(3-24)
Synthesizes theory into practice based on specialty competencies and advanced practice clinical requirements. This course may need to be repeated based on specialization. Prerequisites: completion of all core graduate nursing courses. Specialization plan developed by academic advisor and approved by graduate SAFA committee. (F,S,SS)

NSG 588 Management of Pediatric Clients 4(2-8)
Role of the practitioner in the management of minor acute and chronic problems of infants, children, and adolescents (120 clinical hours). Prerequisites: completion of all core graduate nursing courses. (S)

NSG 591 Special Topics (1-6 VAR) (*)

NSG 592 Research 3(3-0)
Focuses on research methods needed for investigation and expansion of nursing knowledge. Appraisal and analysis of research and development of a proposal will be covered. Prerequisites: undergraduate statistics course; admission to Graduate Nursing Program or by permission by graduate SAFA committee. (F)

NSG 593 Thesis Seminar 3(3-0)
Developing skills in creating and writing research-based proposals or protocols and in using research methods to evaluate nursing care. Prerequisite: NSG 592. (F,S,SS)

NSG 595 Independent Study (1-6 VAR) (*)

NSG 599 Thesis Research (1-6 VAR)
Preparation of thesis to meet degree requirements. Must be enrolled each semester in at least one credit hour if thesis is still in process. (IP or S/U grading). Prerequisites: NSG 593 and approval by thesis advisor. (*)

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 110L Astronomy Lab 1(0-2)
Laboratory course to accompany PHYS 110. Corequisite: PHYS 110. (F,S)

PHYS 140 Light, Energy, and the Atom 3(3-0)
A non-mathematical approach to light, energy sources, conservation, atoms, nuclei and nuclear radiation. Emphasis on phenomena encountered in everyday life or that affect public policy. (F,S)

PHYS 140L Light, Energy and the Atom Lab 1(0-2)
Optional laboratory to accompany PHYS 140. Experiments in light, solar energy, atomic and nuclear physics with emphasis on qualitative understanding of observations. Corequisite: PHYS 140. (F)

PHYS 150 (CHEM 150) Elementary Concepts in Physics and Chemistry 4(3-2)
Hands-on standards-based approach to understanding basic concepts of physics and chemistry. Integrated lecture, lab and discussion periods. (F,S,SS)

PHYS 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: College Algebra or satisfactory math placement exam score. 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 293 Seminar 1(1-0)
The student attends at least 11 Physics Seminar presentations or other approved presentations and then presents a public seminar presentation on some approved physics-related topic. (F,S)

PHYS 301 Theoretical Mechanics 4(4-0)
Statics and dynamics of particles and rigid bodies. Conservation principles, minimum principles, accelerated coordinate systems, Lagrangian and Hamiltonian methods, vector and matrix methods. Prerequisites: PHYS 221, MATH 325 and MATH 337. (F/E)

PHYS 321 Thermodynamics 3(3-0)
Introduction to thermodynamic laws and principles, entropy, kinetic theory and statistical mechanics. Prerequisite: PHYS 221. (F/E)

PHYS 322 Advanced Laboratory- Heat 1(0-2)
Experiments in heat of combustion, heat transfer, thermal electromotive force, viscosity, and specific heat measurements. Prerequisite or corequisite: PHYS 321. (F/E)

PHYS 323 General Physics III 4(4-0)
Introduction to special relativity, kinetic theory, quantization, wave mechanics, atomic structure, nuclear physics and spectroscopy. Prerequisites: PHYS 222/222L and MATH 224. Corequisite: PHYS 323L. (S)

PHYS 323L General Physics III Lab 1(0-2)
Corequisite: PHYS 323. (S)

PHYS 341 Optics 3(3-0)
Geometrical optics, interference, diffraction, polarization of light, optical properties of materials, optical sources including lasers, and holography. Prerequisites: PHYS 222/222L and MATH 325. (F, O)

PHYS 342 Advanced Laboratory-Optics 1(0-2)
Experiments in interference, diffraction, absorption, spectral characteristics and polarization of light. Prerequisite or Corequisite: PHYS 341. (F, O)

PHYS 361 Physics of Sound 3(3-0)
Sound waves, sources of sound, physics of hearing, acoustical measurements. For speech correction majors and other interested students. Prerequisite: MATH 120 or equivalent. (F, O)

PHYS 431 Electricity and Magnetism 4(4-0)
Mathematical treatment of electrostatics, currents, magnetism, electromagnetic induction, Maxwell's equations and electrodynamics. Prerequisites: PHYS 222/222L, MATH 325 and 337. (S, E)

PHYS 432 Advanced Laboratory-Electricity and Magnetism 1(0-2)
Experiments in electrostatic constants, magnetic effects, capacitance, thermoelectric effects, magnetic properties, inductance, mutual inductance, and production, propagation and diffraction of microwaves. Prerequisite or Corequisite: PHYS 431. (S, E)

PHYS 441 Quantum Mechanics 4(4-0)
Wave packets, operators, the Schroedinger equation, eigenstates, angular momentum, spin, magnetic moments, Heisenberg formulation. Prerequisites: PHYS 323/323L, MATH 325 and 337. (S, O)
Practicum

PHYS 480 in Laboratory Instruction 1(0-2)
Participation in laboratory instruction under the guidance of a staff member. Includes instruction on laboratory safety. May be repeated for a maximum of two credits. (F,S)

PHYS 491 Special Topics (1-4 VAR) (*)

PHYS 492 Research 1(0-2)
Prerequisite: eight credits in upper-division physics courses. (F,S)

PHYS 493 Seminar 1(1-0)
Class members report on recently published work or on their own research in physics or applied physics. May be repeated for a maximum of two credits. Prerequisite: advanced standing with a major or minor in physics. (S, O)

PHYS 495 Independent Study (1-2 VAR)
Prerequisite: junior or senior standing; permission of department chair. (*)

PHYS 499 Thesis Research 1(1-0)
Students write a research paper describing their own research. Prerequisite: senior standing in the department. (F,S)

POLITICAL SCIENCE (POLSC)

UNDERGRADUATE COURSES

POLSC 101 American National Politics 3(3-0)
Basic processes in American politics. Principles and structure of national governments. (*)

POLSC 102 State and Local Government and Politics 3(3-0)
Behavioral aspects, government organization and interrelationships of state and local politics, relations with federal government and other states. Special attention to Colorado government. (S)

POLSC 105 (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. (*)

POLSC 106 Minority Politics in America 3(3-0)
An overview of the historical and contemporary struggles for empowerment by groups traditionally excluded from full societal participation because of racial designation. (*)

POLSC 200 Understanding Human Conflict 3(3-0)
Study of conflict: personal, social, institutional, ethnic, and international. Conflict resolution and management also will be addressed. (*)

POLSC 201 Comparative Politics 3(3-0)
Introduction to comparative political analysis through study of selected political systems. Emphasis on basic political functions and processes in developed countries. (F)

POLSC 202 World Politics 3(3-0)
Study of political problems and issues which face the world. Emphasis on conflict, arms transfers, economic change and world commons. (S)

POLSC 240 Political Analysis 3(3-0)
An introduction to political science and its subfields. Includes methods for critically thinking about the political process and communicating political ideas. Prerequisite: POLSC 101. (S)

POLSC 250 Research Methods in Political Science 3(3-0)
Introduction to the basic methods and tools of research in political science, including the scientific method, research design, data collection and qualitative and quantitative analysis. Prerequisites: POLSC 101 and 240. (*)

POLSC 260 Paralegal I 3(3-0)
Study of theory of law and legal process. Course will not count toward the major or minor in political science. (F,S,SS,*)

POLSC 261 Paralegal II 3(3-0)
Using primary and secondary source materials in legal research. Course will not count toward the major or minor in political science. Prerequisite: POLSC 260. (F,S,SS,*)

POLSC 300 Political Parties and Elections 3(3-0)
Examines the organization and function of political parties and the roles of political parties, pressure groups, and public opinion in American elections. Prerequisite: POLSC 101. (F)

POLSC 305 International Relations 3(3-0)
Study of international systems and organizations. Special emphasis on the principal sources of conflict and the study of conflict management. Prerequisite: POLSC 201 or 202. (S)

POLSC 320 Legal Research Methods 3(3-0)
Introduction to the basic reference materials of legal research. Use of law libraries, interpretation of statutes and judicial decisions and preparation of legal memoranda. (S/U grading). (*)

POLSC 321 American Constitutional Development 3(3-0)
Political context of the origin of the U.S. Constitution, Supreme Court procedures, court decisions defining uses and scope of the powers of the court, the Congress and the presidency. Prerequisite: POLSC 101. (F)

POLSC 322 American Constitutional Law 3(3-0)
Survey of American constitutional law; emphasis on Supreme Court decisions defining the extent and limits and of governmental authority and the rights and liberties of individual citizens. Prerequisite: POLSC 321 or permission of instructor. (S)

POLSC 323 Criminal Law and Procedure 3(3-0)
Content and characteristics of criminal law and procedures. Roles and functions of persons and agencies involved in judicial administration. Prerequisite: POLSC 101. (F)

POLSC 324 Family Law 3(3-0)
Survey of legal issues concerning domestic relations; Supreme Court decisions and legislative enactments. Prerequisites: POLSC 101 and 320. (S)

POLSC 330 Introduction to Public Administration 3(3-0)
Role of public bureaucracy in modern society. Principles and processes of public administration, personnel management and administrative responsibility. Prerequisite: POLSC 101. (*)

POLSC 340 Public Policy 3(3-0)
Introduces the process of formulation, implementation, and evaluation of public policy. Examines program development and execution in the context of political, economic, and institutional environments. Prerequisite: POLSC 101. (*)

POLSC 370 Political Thought 3(3-0)
Systematic survey of political thought from beginnings in Ancient Near East to present. Emphasis on contributions relevant to contemporary political theory. Prerequisite: previous work in political science or philosophy. Prerequisite: POLSC 250 or permission of instructor. (F)

POLSC 395 Independent Study (1-3 VAR)
Independent study involving specialized reading and research. Prerequisite: permission of instructor. (*)

POLSC 405 The American Presidency 3(3-0)
Analysis of the powers and politics of the American presidency and those who have held the office. Presidential decision making, legislative and judicial relationships, elections. Prerequisite: POLSC 101. (S)

POLSC 411 Legislatures and Legislation 3(3-0)
Organization, function, and process of American legislatures at national, state and local levels. Party organization, legislative procedures, lobbying and legislative reorganization. Prerequisite: POLSC 101. (S)

POLSC 440 Area Study: Europe 3(3-0)
Introduction to the political, economic and military structures and processes of the region. (*)

POLSC 445 Area Study: Latin America 3(3-0)
Introduction to the political, economic, and military structures and processes of the region. (*)

POLSC 450 Area Studies: Asia and The Pacific 3(3-0)
Introduction to the political, economic and military structures and processes of the region. (*)

POLSC 455 Area Study: Africa/Middle East 3(3-0)
Introduction to the political, economic and military structures and processes of the region. (*)

POLSC 473 American Political Thought 3(3-0)
Development of American segment of modern political thought from colonial times to present. Interrelationship of individuals, ideas and institutions shaping modern American political responses. (*)

POLSC 480 Practicum in Politics and Public Service (3-6 VAR)
For advanced students. Practical experience as interns in governmental agencies, political parties or legal offices. Prerequisite: departmental permission. (S/U Grading) (*)

POLSC 491 Special Topics (1-3 VAR)
Independent study involving seminars and research. Prerequisites: junior or senior status with adequate preparation and approval of instructor. (*)

POLSC 492 Research (1-3 VAR) (*)

POLSC 493 Seminar (1-3 VAR)
Application of research methods and materials. Emphasis on in-depth study of specific political topics. Involves writing and discussion of research papers at advanced level. Prerequisite: POLSC 250 and 370. (S)

PSYCHOLOGY (PSYCH)

UNDERGRADUATE COURSES

PSYCH 100 General Psychology 3(3-0)
Overview of the field of psychology including learning, perception, motivation, emotion, heredity, personality, development, abnormal and psycho-therapy. (F,S,SS)

PSYCH 103 Introductory Psychology for Majors 2(2-0)
Explore psychology as a career in addition to an introduction to the basic skills required for conducting psychological research including APA writing style, journal article analysis, and basic statistics. (F,S,SS/E)

PSYCH 105 (POLSC, 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. (*)

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 de-signed to increase memory ability. (*)

PSYCH 151 Introduction to Human Development 3(3-0)
Survey of human development through life span. A multi-disciplinary approach to the study of both change and stability in physical, cognitive, social and personality development Review of relevant developmental theory and research. (F,S,SS)

PSYCH 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 207 Quantitative Research Methods I 3(3-0)
Introduction to research development and use of quantitative methods. Prerequisites: PSYCH 100, PSYCH 103, Gen Ed Math. Corequisite: PSYCH 207L. (F,S)

PSYCH 207L Quantitative Research Methods Lab I 1(0-1)
Introduction to methods of psychological experimentation. Prerequisites: PSYCH 100, PSYCH 103, Gen Ed Math. Corequisite: PSYCH 207. (F,S)

PSYCH 209 Quantitative Research Methods II 3(3-0)
Continuation of PSYCH 207. Focus on research development and quantitative methods. Prerequisites: PSYCH 100, PSYCH 103, PSYCH 207. Corequisite: PSYCH 209L. (F,S)

PSYCH 209L Quantitative Research Methods Lab II 1(0-1)
Continuation of Quantitative Research Methods Lab I. Prerequisites: PSYCH 100, PSYCH 103, Gen Ed Math, PSYCH 207, PSYCH 207L. Corequisite: PSYCH 209. (F,S)

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. Prerequisite: PSYCH 100. (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, 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: PSYCH 100 and sophomore standing. (F)

PSYCH 251 Infancy, Childhood and Preadolescence 3(3-0)
Physical, social, cognitive and emotional growth of the individual from conception through pre-adolescence. Topics include prenatal development, language development, attachment, and sexual development. Prerequisite: PSYCH 100. (F,S)

PSYCH 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 201 and 202. Corequisite: PSYCH 302. (F,S)

PSYCH 302 Psychological Experimentation Methods 2(2-0)
Introduction to methods of psychological experimentation in animals and humans. Corequisite: PSYCH 301. (F,S)

PSYCH 311 Theories of Personality 3(3-0)
Major theories of personality and the methods of personality investigation. Prerequisite: PSYCH 100. (F,S)

PSYCH 314 Environmental Psychology 3(3-0)
The influence of the physical and social environment on the individual. Variables considered include architecture, city size, noise, pollution and allocation of resources. Prerequisite: PSYCH 100. (*)

PSYCH 315 Industrial/Organizational Psychology 3(3-0)
Application of the principles of psychology to the workplace, including personnel selection, motivation, group processes, leadership, job analysis, and organization. Prerequisite: PSYCH 100. (*)

PSYCH 331 Physiological Psychology 3(3-0)
Structure and function of the brain, nervous and endocrine systems; biological basis of sensation, perception, sleep and arousal, motivation, learning and memory, and drug action. Prerequisites: PSYCH 100. Corequisite: PSYCH 331L. (S)

PSYCH 331L Physiological Psychology Lab 1(0-2)
Corequisite: PSYCH 331. (S)

PSYCH 334 Perception 3(3-0)
The senses and how they cooperate with the brain to provide awareness and knowledge of the world about us. Empirical findings and theoretical analysis of the processes of seeing, hearing, tasting, smelling and touching. Role of learning in normal and illusory perception is considered. Prerequisite: PSYCH 100 or permission of instructor. Corequisite: PSYCH 334L. (*)

PSYCH 334L Perception Lab 1(0-2)
Corequisite: PSYCH 334. (*)

PSYCH 336 Learning and Motivation 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. (*)

PSYCH 337 Memory and Cognition 3(3-0)
Theory and research on current topics in cognition, including attention, concept formation, imagery, memory, decision making, language acquisition, problem solving and text comprehension. Prerequisite: PSYCH 100. (F)

PSYCH 342 Educational Psychology 3(3-0)
The contribution of psychology theory, research and methods to our understanding of teaching and learning. Prerequisite: PSYCH 100 or 151. (*)

PSYCH 351 Psychology of the Exceptional Individual 3(3-0)
Survey of characteristics of those individuals considered significantly above or below the norm of the population. Emphasis on behavioral identification and modification of the home, school and social environment. Prerequisite: PSYCH 100. (*)

PSYCH 352 (SOC 352) Social Psychology 3(3-0)
General and applied psychological principles of the individual's interaction with a group. Prerequisite: PSYCH 100. (*)

PSYCH 353 Advanced Developmental Psychology 3(3-0)
Emphasis on theoretical foundations of developmental psychology. Research strategies used in conducting developmental research. Prerequisite: PSYCH 151 or PSYCH 251. (F,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, 209, and 209L. (*)

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, 209, 209L and senior standing. (F,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 209 and 209L. (*)

PSYCH 417 Health Psychology 3(3-0)
Students will study how the biopsychosocial model interacts dynamically and influences the well being of the whole person. Prerequisite: PSYCH 100. (*)

PSYCH 420 Human Evolutionary Psychology 3(3-0)
A synthesis of the modern principles of psychology with evolutionary biology with an emphasis on the origins of higher cognitive functions, emotions, and culture. Prerequisites: PSYCH 100 & Jr. Sr. standing. (*)

PSYCH 463 Psychopathology of Childhood 3(3-0)
A survey of the unique conceptual models of etiology, assessment and therapy appropriate to the study of the psychological disorders of childhood. Prerequisites: PSYCH 100 and 362 or equivalent. (*)

PSYCH 464 Systems of Counseling and Psychotherapy 3(3-0)
Traditional and contemporary theories of counseling and psychotherapy through use of case studies and other selected materials. Prerequisites: PSYCH 100, 311, and 362. Corequisite: PSYCH 464L or permission of instructor. (F)

PSYCH 464L Systems of Counseling and Psychotherapy Lab 1(0-2)
Corequisite: PSYCH 464. (F)

PSYCH 465 Behavior Modification 3(3-0)
Advanced methods and techniques of behavior modification as practiced in various agencies and institutions. Prerequisites: PSYCH 100 and upper division standing. (*)

PSYCH 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, and upper division standing. (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, 311, 362, 464, and 464L. (S)

PSYCH 491 Special Topics (1-3 VAR)
Prerequisite: permission of instructor. (*)

PSYCH 492 Research (1-3 VAR)
Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 total credits. Prerequisites: junior or senior level standing. approval of Department Chair. (F,S,SS)

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, 311, 362, 464, 464L, upper division standing, and written permission of instructor. (F,S,SS)

PSYCH 495 Independent Study (1-3 VAR)
Prerequisites: PSYCH 100, upper division standing, and written permission of instructor. (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. (*)

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 591 Special Topics (1-3 VAR)
Prerequisites: graduate standing and permission of instructor. (*)

PSYCH 592 Research 3(3-0)
Designed to assist students with the knowledge and skills necessary for a consumer of research. The fundamentals of research procedure and analysis of statistics are stressed. (*)

PSYCH 595 Independent Study (1-3 VAR)
Prerequisites: graduate standing & permission of instructor. (*)

PSYCH 598 Internship 3(0-3)
Designed to provide the student with actual field work experience in counseling and guidance. (*)

READING (RDG)

UNDERGRADUATE COURSES

RDG 099 Development Reading Skills 3(3-0)
Students will apply strategies for improving comprehension, developing vocabulary, and increasing rate for reading college textbooks. (S/U grading) (F,S)

RDG 301 Reading and Language Arts in the Elementary School 3(3-0)
Foundations of reading and language arts including psychology of reading, language development, emergent literacy, word attack, comprehension strategies, vocabulary, hand-writing, spelling, written and oral language skills. (F,S)

RDG 310 Current Approaches to Reading and Writing Instruction 3(3-0)
Various approaches to teaching reading and writing including research findings and classroom application of the reading and writing process. Prerequisite: RDG 301 or 425. (F)

RDG 360 Practicum (1-3 VAR)
Work with small groups and individual pupils in the public school preparing materials and lessons under the supervision of a reading teacher. Applies to both elementary and secondary schools depending upon the instructor's assignment. Prerequisites: RDG 301 or 425 and initial testing in basic competencies. (F,S)

RDG 410 Teaching Rdg and Language Arts 4(4-0)
Includes reading and language arts instruction, emphasizing methods and assessment strategies to meet K-6 Colorado content standards; 30 hours of field experience. Prerequisite: admission to Education. (F,S)

RDG 425 Teaching Reading in Content Areas 3(3-0)
Reading skills, strategies and activities to improve comprehension of textual material in various content areas such as mathematics, science, literature, social sciences, and industrial education. (F,S)

RDG 431 Developing Creative Centers 1(1-0)
Involves planning, developing and implementing the use of learning centers in the classroom. Prerequisite: RDG 301 or 425. (SS)

RDG 435 Content Area Literacy 4(3-2)
Focuses on skills and strategies to improve comprehension of textual material as well as writing in various content areas; 60 hours of field experience. Prerequisite: admission to Education. (F,S)

RDG 436 New Directions in Reading Comprehension 2(2-0)
Exploration of and simulations of research-based strategies to increase students' comprehension of reading in elementary and secondary classes. Prerequisite: RDG 301 or 425. (F,SS)

RDG 437 Newspapers as a Teaching Resource 1(1-0)
Strategies and procedures for using the newspaper as a supplementary resource in content area classrooms at all grade levels (K-12). (SS)

RDG 442 Reading Across Cultures 2(2-0)
Techniques of adapting reading instruction for the linguistically and culturally different child. Problems of many minority groups are analyzed. Prerequisite: RDG 301. (S)

RDG 450 Diagnosis and Remediation of Reading Problems 3(2-3)
Diagnostic and evaluation procedures used in detecting and remediating problems and individualized instruction. Appropriate for elementary and secondary teachers. Field experience required. Admission to teacher program required. Prerequisite: RDG 301 or 425. (F,S)

RDG 491 Special Topics (1-2 VAR) (*)

RDG 495 Independent Study (1-2 VAR)
Individual projects and problem-solving experiences designed to meet students' special needs. With instructor's permission, certain program requirements may be completed through independent study. (*)

GRADUATE COURSES

RDG 510 Foundations of Reading Instruction 3(3-0)
Basic course for other graduate reading courses, including reading skills, sequence, materials, psychology of reading and relationship to other language arts. Prerequisite: graduate standing. (*)

RDG 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 535 Content Area Literacy 3(3-0)
Focuses on skills and strategies to improve comprehension of textual material as well as writing in various content areas. Prerequisite: graduate standing. (*)

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 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: permission of the instructor. (*)

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 105 Canyon Orientation 2(1-2)
Students will develop proficiency in canyon travel, group camping, and will explore the geology, geography, and ecology of the canyon country. (*)

REC 240 Recreation Program Design 3(3-0)
Rationale supporting and methods of conducting recreation programs in a wide variety of public, private, voluntary and commercial recreation agencies. (S)

REC 249 Challenge Course Leadership 2(2-0)
This course is designed to teach knowledge, skills, and methods necessary to facilitate challenge course programs in a variety of settings for specific client groups. (F,S)

REC 250 Commercial Recreation and Tourism 3(3-0)
Designing for-profit recreation programs and facilities that are linked to tourism. Practical approach to programming in a commercial setting. (S)

REC 270 Outdoor Leadership I 2(1-2)
An introduction to the concepts of outdoor leadership including a field experience focused on the application of theoretical and practical concepts. Additional costs apply. (*)

REC 280 Foundations of Therapeutic Recreation 3(3-0)
Community and clinical recreation services for the mentally retarded, law offenders, psychologically impaired, sensory impaired, physically disabled, disadvantaged or aging. (F)

REC 322 Wilderness First Aid 2(2-0)
Course teaches theory, knowledge, and skills needed for basic medical treatment and evacuation in the wilderness. Involves 3 days of medical training, scenarios and testing. (S/U grading) (F)

REC 350 Leadership and Ethics 3(3-0)
Addresses leadership techniques and styles, leadership theory, group dynamics, and ethical considerations in recreation. Prerequisites: EXHP 101, junior or senior level standing or 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. Prerequisites: EXHP 101, junior or senior level standing or permission of instructor. (S)

REC 370 Outdoor Leadership II 2(1-2)
A practical application of the concepts and theory introduced in REC 270. Students will be required to plan and lead REC 104. Prerequisite: REC 270. (S)

REC 375 Research and Evaluation of Recreation 3(3-0)
Provides an overview of research designs and methodologies using recreation participation data, for needs assessment and program evaluation. Prerequisites: MATH 109 equivalent or higher, EXHP 101 or permission of instructor. (F)

REC 381 Environmental Interpretation 3(3-0)
History, philosophy, and techniques of interpreting our natural and cultural heritage to visitors in natural resource-based parks. Addresses public, private, and non-profit agencies. (F)

REC 389 Practicum in Recreation 3(0-3)
Minimum of 150 hours of practical experience in a selected recreation agency. Prerequisite: permission of director of recreation program. Prerequisites: REC 280 and REC 360. (F,S,SS)

REC 483 Sustainable Practices 3(3-0)
Sustainable, long-term strategies for ecological survival and environmental stabilization, discussed from the perspectives of ethics, economics and political processes. Includes community research and service projects. Prerequisite: BIOL 121/121L (S)

REC 484 Outdoor Resources and Management 3(3-0)
Examination of the outdoor recreation experience, the organization of resource-based recreation management and key outdoor recreation policy issues. Prerequisites: EXHP 101, junior or senior standing or permission of instructor. (F)

REC 485 Recreation Facility Design/Management 3(3-0)
Presentation of basic elements of design and management of recreational facilities, taking into account the interaction between natural resources and man-made structures. Prerequisites: EXHP 101, junior or senior level standing or permission of instructor. (S)

REC 491 Special Topics (1-5 VAR) (*)

REC 493 Seminar 2(2-0)
Advanced in-depth examinations of contemporary issues in leisure/recreation. Includes student-led discussions, in-depth term projects and comprehensive examinations. Interview and resumé preparation are emphasized. Prerequisite: REC 389. (S)

REC 494 Field Experience (1-4 VAR)
Learning experience to be conducted in an actual recreation environment facilitated by an on-site supervisor and an EXHPR supervisor. Prerequisites: approval of the department chair. (S/U grading) (*)

REC 495 Independent Study (1-5 VAR) (*)

REC 498 Internship (1-12 VAR)
Supervised experience with approved professionals in select recreation settings. Prerequisite: senior standing, completion of all other degree requirements, 2.500 GPA in the major, and departmental chair approval. (F,S,SS)

RUSSIAN (RUS)

UNDERGRADUATE COURSES

RUS 101 Introduction to Russian I 3(3-0)
Pronunciation, conversation, grammar, alphabet, easy reading and writing. (F)

RUS 102 Beginning Spoken Russian II 3(3-0)
Students are placed by the department. Practice in oral, aural, reading and writing experiences. (F,S)

RUS 201 Intermediate Russian I 5(5-0)
Grammar and vocabulary. Reading of short stories, oral and written reports. Prerequisite: RUS 102 or equivalent. (*)

RUS 202 Intermediate Russian II 5(5-0)
Prerequisite: RUS 201 or equivalent. (*)

RUS 211 Russian Conversation 2(2-0)
Intensive practice. Prerequisite: RUS 102 or equivalent. (*)

RUS 311 Advanced Russian Conversation 2(2-0)
Intensive practice. Prerequisite: RUS 211 or permission of instructor. (*)

RUS 341 Russian Short Story 2(2-0)
Selected short stories. Discussion of ideas, art and authors. Stress on both oral and written work. Prerequisite: RUS 202 or permission of instructor. (*)

SCIENCE (SCI)

GRADUATE COURSE

SCI 500 Workshop (1-4 VAR)
Science workshops designed specifically for professional development of science teachers. Workshops are subtitled and no subtitle may be repeated for credit (not for MSANS credit). Prerequisites: graduate standing or permission of instructor. (*)

SOCIOLOGY (SOC)

UNDERGRADUATE COURSES

SOC 101 Introduction to Sociology 3(3-0)
The scientific study of patterns and processes of human social relations. (*)

SOC 105 (POLSC, PSYCH, 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. (*)

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 212 (ANTHR 212) The Forensics of Bones 3(3-0)
Familiarize students with the basic procedures used by forensic anthropologists to obtain evidence in criminal investigations. (*)

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 301 Sociological Methods 3(3-0)
The methods of research and investigation in sociology and the social sciences. Prerequisite: SOC 101. (F,S)

SOC 302 Collective Behavior and Social Movements 3(3-0)
An analysis of elementary forms of spontaneous and unstructured behavior (panics, rumors), and complex forms of more structured group phenomena (riots, social movements.) Prerequisite: SOC 101. (S)

SOC 303 Crime and Deviance 3(3-0)
The nature and causes of crime as well as of behavior defined as socially deviant, including violent, corporate, political crimes; sexual, cultural, political deviance. Prerequisites: SOC 101 and 203. (F)

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 320 Modern Social Perspectives 3(3-0)
Social ideas and theory of the 20th century and early 21st century. Topics such as gender, environment, globalization, and information will be addressed. Prerequisite: SOC 101. (*)

SOC 352 (PSYCH 352) Social Psychology 3(3-0)
General and applied psychological principles of the individual's interaction with a group. Prerequisite: PSYCH 100 or permission of instructor. (*)

SOC 353 Penology 3(3-0)
The history and role of corrections; correctional practice, relationship to law, prison society, working in prisons, special needs of prisoners, capital punishment, administration, privatization. Prerequisites: SOC 101 and 203. (*)

SOC 354 Urban Sociology 3(3-0)
Development of urban places; analysis of socio-economic organization, urban social forces and the consequences for individuals, groups and social institutions. (*)

SOC 355 Political Sociology 3(3-0)
Analysis of the major sociological variables associated with political decision making and other political processes. (*)

SOC 356 Social Stratification 3(3-0)
Inquire into inequalities of wealth, power, and the consequence for individuals and society. Prerequisites: SOC 101 and 310. (*)

SOC 358 Film and Society 3(3-0)
An in-depth look at the images of social life and social relationships contained in popular movies. (*)

SOC 359 Community Corrections 3(3-0)
The development and practice of probation, parole, diversion, statutory release, electronic monitoring, halfway houses, privatization. (*)

SOC 401 (ANTHR 401) Health, Culture and Society 3(3-0)
Analysis of how social, cultural, and psychological factors influence health and health care. (*)

SOC 402 (ANTHR 402) Aging, Culture and Society 3(3-0)
Cultural, sociological and psychological dimensions of aging. (*)

SOC 403 (WS 403) Human Sexuality and Social Behavior (3-0)
Sexuality and sexual conduct from a sociological and social psychological perspective. Prerequisite: junior or senior standing. (*)

SOC 404 Poverty 3(3-0)
Poverty in the United States, its measurement and extent, perpetuating conditions, lifestyle and anti-poverty programs. (*)

SOC 405 Law and Society 3(3-0)
The origins and functions of law; the social organization of legal institutions and decisions; the relationship of law to morality, justice and social change. (*)

SOC 406 Sociology of Small Groups 3(3-0)
Microsociological analysis of group structure, interaction and dynamics in institutional settings in modern society. (*)

SOC 407 (WS 407) Family Violence 3(3-0)
The extent, seriousness, and impact of the major forms of domestic violence. (*)

SOC 408 Science, Technology, and the Future 3(3-0)
Social and structural implications of science and technology as they affect society. (*)

SOC 409 Victimology 3(3-0)
Study of the victims' role in criminal transactions. Examination off individuals and groups as victims of officially defined crime, as well as other social injuries, not officially defined as crime. (*)

SOC 410 Structural and Elite Crime 3(3-0)
Examination of crimes and social injuries perpetrated by organizational structures that do physical or economic harm to the environment, their employees, and their customers. (*)

SOC 411 Police and Society 3(3-0)
The history and role of police; including patrol officers, detectives, specialty units, police discretion, women in policing, community policing, private policing, corruption, brutality, accountability. Prerequisite: SOC 101. (*)

SOC 412 Occupations and Professions 3(3-0)
Occupations and professions in modern society, including changing structures of careers, issues of expertise, impact of gender and race, the role of education. Prerequisite: SOC 101. (*)

SOC 413 Patterns of Homicide 3(3-0)
Examines the rates, types, patterns, and explanation of homicide in the United States and selected other countries. Prerequisites: SOC 101 and 203. (*)

SOC 414 Serial Murder 3(3-0)
Examines serial murder in historical and contemporary contexts and assesses current control strategies including forensic science and profiling. Prerequisites: SOC 101 and 203. (*)

SOC 415 Forensic Criminology 3(3-0)
Course introduces students to variable aspects of Medicolegal Death Investigation. Students will learn about investigating deaths caused by homicide, suicide, accidents, and natural causes. (*)

SOC 416 (ANTHR 416) Crime and the Mind 3(3-0)
Examination of "crime" as an ongoing aspect of human existence. (*)

SOC 417 Forensics & Homicide Investigations 3(3-0)
Examines police investigations of homicide and presents a critical analysis of the role of forensic science in the identification of suspects. Prerequisites: SOC 101 and 203. (*)

SOC 418 Crime, Drugs and Social Policy 3(3-0)
This course examines the way in which crime and drug policy is formulated, articulated, implemented, and evaluated. (*)

SOC 419 Vice Crime 3(3-0)
This course examines the causes, consequences, and control of vice crimes such as drugs, gambling, and prostitution. (*)

SOC 420 Explaining Crime 3(3-0)
Examination of major sociological explanations of crime and their policy implications. Prerequisites: SOC 101 and 203. (S)

SOC 421 Homicide, Courts & Corrections 3(3-0)
Examines criminal law applicable to homicide, the court processing of homicide cases, and the sanctions of life imprisonment and the death penalty. Prerequisites: SOC 101 and 203. (*)

SOC 422 Terrorism and Mass Murder 3(3-0)
Examines mass murder, genocide, and terrorism around the world and assesses current control initiatives. Prerequisites: SOC 101 and 203. (*)

SOC 428 (HIST, WS 428) Women & Work 3(3-0)
Examines historical and contemporary issues for women of various economic, social, and ethnic groups, especially in the US; examines gender ideologies about paid, unpaid work. Prerequisites: junior or senior standing or permission of instructor. (*)

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 448 Emotions in American Culture 3(3-0)
How American norms and values govern the creation, expression, and form of emotions. The content and form of the emotional self. Prerequisite: SOC 101. (*)

SOC 451 (ANTHR 451) Culture/Deviance/Psychopathology 3(3-0)
Analysis of the relationship between culture and the causes and manifestations of deviance and psychopathology. (*)

SOC 452 (ANTHR 452) Self and Society 3(3-0)
Examination of the self and society within sociological/anthropological theory. Special emphasis will be placed on symbolic interactionism and cross-cultural approaches. Prerequisite: SOC 101 and/or SOC/PSYCH 352 (*)

SOC 453 (WS 453) The Sociology of the Body 3(3-0)
Exploration of what it is like to live through (in/with/as) our female and male bodies. Examination of writings in the field of body studies. Prerequisite: SOC 101. (S)

SOC 455 (WS 455) Hate Crimes 3(3-0)
Examines assumptions about race, gender, sexuality, and others that are used to justify hate crimes; examines common forms, emphasizing causal factors and effects. Prerequisite: SOC 101. (*)

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 (1-12 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. (*)

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. (*)

SPEECH COMMUNICATION (SPCOM)

UNDERGRADUATE COURSES

SPCOM 103 Speaking and Listening 3(3-0)
Introduces principles of speaking and listening with emphasis on exposition and its application to public speaking. (F,S,SS)

SPCOM 115 Speech Activity I 1(0-4)
On- and off-campus activities including intercollegiate forensic competition, programs for students and public. Communication skill and experience development. May repeat twice for credit. (F,S)

SPCOM 116 Beginning Sign Language 3(3-0)
Introduction to the fundamentals of communicative interaction with and among the deaf by means of hand symbolization. (F)

SPCOM 211 Public Speaking (2-3 VAR)
Emphasis is placed upon audience analysis, proof, and speaker credibility in order to persuade audiences. Application made through classroom presentations and analysis of models. (*)

SPCOM 212 Argumentation 2(2-0)
Argumentation focuses on the methods advocates employ to make rational decisions and to win assent to others' statements. Particular emphasis on the nature and skills of reasoned discourse. (*)

SPCOM 216 Intermediate Sign Language 3(3-0)
Study and application of the American Sign Language, including conversational skills, gestures and deaf cultures. Prerequisite: SPCOM 116 or permission of instructor. (S)

SPCOM 221 Interpersonal Communication 3(3-0)
The principles and skills of speaking applied to informal speaking situations. Topics covered include openness, genuineness, and talking appropriately to people. (*)

SPCOM 231 Oral Interpretation (2-3 VAR)
Basic principles and techniques of oral reading, designed to aid the student in discovering and sharing with an audience the meaning and feeling in literature. (*)

SPCOM 250 Introduction to Communication Disorders 2(2-0)
Survey course about major communicating disorders. Emphasis on classification and descriptions. Covers certification requirements, licensure and professional opportunities. (S)

SPCOM 260 Language Acquisition and Linguistics 3(3-0)
Normal processes of development of language in children, growth of language, including structure, comprehension, use of oral and written language, other symbolic behavior. (F)

SPCOM 261 Voice and Diction 3(3-0)
Voice improvement course for teachers, actors, broadcasters, professional speakers. Emphasis on breath support, phonation, resonation, articulation and pronunciation. Individual attention stressed. (F)

SPCOM 291 Special Topics (1-3 VAR) (*)

SPCOM 295 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (*)

SPCOM 312 Persuasion (2-3 VAR)
Examination of the principles and theories of persuasion and their application to persuasive settings. Emphasis on using language to secure belief and action. Prerequisites: SPCOM 211, 212, or permission of instructor. (*)

SPCOM 315 Speech Activity II 1(0-4)
On- and off-campus activities including intercollegiate forensic competition, programs for students and public. Continuation of SPCOM 115. May be repeated twice for credit. (F,S)

SPCOM 324 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 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 335 (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. (SS)

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 grading) 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. (*)

SPANISH (SPN)

UNDERGRADUATE COURSES

SPN 100 Intro to Conversational Spanish 3(3-0)
Basis skills for understanding and speaking Spanish. (*)

SPN 101 Beginning Spanish I 3(3-0)
Development of skills in speaking, listening, reading, writing; and cultural understanding (F,S,SS)

SPN 102 Beginning Spanish II 3(3-0)
Continuation of the development of skills in speaking, listening, reading, writing, and cultural understanding. Prerequisite: SPN 101 or departmental placement test. (F,S,SS)

SPN 130 Cultures of the Spanish-Spkg World 3(3-0)
Topics in the history, literatures, and art of selected Spanish-Speaking cultures, taught in English. (F,S)

SPN 201 Intermediate Spanish I 3(3-0)
Development of intermediate-level skills in speaking, listening, reading, writing, and cultural understanding. Prerequisite: SPN 102 or departmental placement exam. (F)

SPN 202 Intermediate Spanish II 3(3-0)
Continued development of intermediate-level skills in speaking, listening, reading, writing, and cultural understanding. Prerequisite: SPN 201 or departmental placement exam. (S)

SPN 203 Intermediate Proficiency Building 3(3-0)
Solidification of intermediate-level skills in speaking, listening, reading, writing, and cultural understanding. Prerequisite: SPN 102 or departmental placement exam. (F,S)

SPN 300 Spanish Phonetics and Phonology 3(3-0)
Theory and practice of Spanish language and speech patterns; how to produce and to teach the Spanish sound system accurately. Prerequisite: SPN 202 or equivalent. (F,S)

SPN 301 Advanced Spanish Grammar 3(3-0)
A concentrated study of Spanish grammar in addition to practice in writing, reading, speaking, and listening. Prerequisites: SPN 202 and 203 or equivalent. (F)

SPN 302 Conv & Comp: Mexico & Central Amer 3(3-0)
Focus on improving linguistic proficiency within the context of Mexican and Central American cultures. Prerequisites: SPN 202 and 203 or equivalent. (*)

SPN 303 Conv & Comp: South America 3(3-0)
Focus on improving linguistic proficiency within the context of South American cultures. Prerequisites: SPN 202 and 203 or equivalent. (*)

SPN 304 Conv & Comp: Caribbean 3(3-0)
Focus on improving linguistic proficiency with the context of Caribbean Hispanic cultures. Prerequisites: SPN 202 and 203 or equivalent. (*)

SPN 305 Conv & Comp: Spain 3(3-0)
Focus on improving linguistic proficiency within the context of Spanish cultures. Prerequisites: SPN 202 and 203 or equivalent. (*)

SPN 306 Conv & Comp: United States 3(3-0)
Focus on improving linguistic proficiency within the context of Hispanic/Latino cultures in the United States. Prerequisites: SPN 202 and 203 or equivalent. (*)

SPN 309 Intro to Hispanic Linguistics 3(3-0)
Fundamental terminology and concepts in linguistics; overview of Spanish sound system (phonology), word formation (morphology), phrase structure (syntax), etc. Prerequisites: SPN 300 and 301. (*)

SPN 310 Introduction to Hispanic Literature 3(3-0)
Study of the basic tools necessary for analysis and understanding of literature; application of these tools through reading, writing, and discussion of Hispanic texts. Prerequisite: SPN 301. (F,S)

SPN 411 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 310. (*)

SPN 412 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 310. (*)

SPN 421 18th and 19th Century Spanish Literature 3(3-0)
The study of representative works of Spanish literature from 1700 to 1898. Prerequisite: SPN 310. (*)

SPN 422 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 310. (*)

SPN 451 20th-Century Spanish Literature 3(3-0)
Critical reading of selected masterpieces of 20th-Century Spanish literature. Prerequisite: SPN 310. (*)

SPN 452 Contemporary Spanish American Literature 3(3-0)
Spanish American literature. Works by Carpentier, Cortazar, Neruda, Vallejo, Castellanos, etc. Prerequisite: SPN 310. (*)

SPN 460 Literary Theory and Hispanic Literature 3(3-0)
The application of contemporary theory to the reading of Hispanic literature. Prerequisite: SPN 310. (*)

SPN 461 Cervantes 3(3-0)
The study of Cervantes, his major works and the period in which they were written. Prerequisite: SPN 310. (*)

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 310. (*)

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 310. (*)

SPN 472 Colonial Spanish American Literature 3(3-0)
An introduction to the literary and cultural texts of Spanish America before Independence. Prerequisite: SPN 310. (*)

SPN 491 Special Topics (1-3 VAR)
Prerequisites: SPN 301 or the equivalent and one of SPN 302-306 plus permission of the 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. Prerequisites: SPN 301 or the equivalent and one of SPN 302-306 plus permission of the instructor. (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. Prerequisites: SPN 301 or the equivalent and one of SPN 302-306 plus permission of the 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. Prerequisites: SPN 301 or the equivalent and one of SPN 302-306 plus permission of the instructor. (F,S)

SOCIAL WORK (SW)

UNDERGRADUATE COURSES

SW 100 Introduction to Social Work 3(3-0)
Introduction to the history and philosophy of the social work profession including the knowledge, values, ethics, roles and skills inherent in social work practice. (F,S)

SW 201 Human Behavior and Social Environment 3(3-0)
Focus on the person in environment throughout the life span with an examination of the relationship between biological, psychological, social, spiritual and cultural systems. 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 work in the United States social welfare system. Critical thinking techniques will be used to analyze policy. Pre/corequisite: SW 100. (F)

SW 210 Statistics for Social Worker 3(3-0)
Introduction to qualitative and quantitative data analysis. Emphasis on descriptive and inferential statistics most utilized in evidence-based social work practice and research. (F,S)

SW 222 Introduction to Social Work Practice 3(2-2)
Application of the foundation of generalist practice skills. Requires 45 clock hours of volunteer work in an approved human service agency. Prerequisite: SW 201. (F,S)

SW 230 (CS 230) Chicano: Social and Psychological Study 3(3-0)
Social and psychological forces present in the Chicano community. (F)

SW 290 Special Projects (1-5 VAR)
Prerequisite: permission of instructor. (*)

SW 310 Social Work Theory 3(3-0)
A comparative approach to explanatory and practice theories relating to social work and the helping professions. Prerequisite: acceptance into the social work program. (F)

SW 320 Human Diversity in Practice 3(3-0)
Critically examines the history, culture, strengths and barriers in social work practice with diverse groups. Identifies skills required for culturally competent practice with populations-at-risk. Prerequisites: SW 205, 222, CS 101, a Women's Studies course and acceptance into the social work program. (F)

SW 322 Social Work Intervention I 3(3-0)
Elements of generalist micro social work practice and theory. Skill development in assessment, intervention, and evaluation emphasized. Prerequisite: acceptance into the social work program. Corequisites: students who have not yet completed SW 310 and SW 320 must enroll concurrently. (F)

SW 323 Social Work Intervention II 3(3-0)
Elements of generalist mezzo social work practice focusing on small groups and families. Assessment, intervention, evaluation and practice theory are emphasized. Prerequisite: SW 322 (S)

SW 324 Social Work Intervention III 3(3-0)
Nature and scope of social work theories and interventions at the organizational and community (macro) levels; distinctive characteristics of the community as a social system and implications for generalist practice. Prerequisites: acceptance into the social work program, SW 322. Corequisite: students who have not yet completed SW 323 must enroll concurrently. (S)

SW 325 (CS 325) Health in the Chicano Community 3(3-0)
Health care traditions and current health care systems in the barrio. (S)

SW 326 SW Practice with Older Adults 3(3-0)
The biological, psychological, social, cultural and spiritual aspects of aging and the services affecting them. Prerequisites: junior standing or consent from instructor. (*)

SW 327 Practice with Abused and Neglected Children 3(3-0)
The physical, behavioral, emotional signs of child abuse and neglect; laws designed to protect children, and services available to assist them. Prerequisites: junior standing or consent of instructor. (*)

SW 350 Social Welfare Policy 3(3-0)
Theory and social work practice related to social policy, problem identification, policy formation, implementation, evaluation and analysis. Development of critical thinking skills for policy analysis. Prerequisites: acceptance into the social work program; completion of any one ECON or POLSC course. (S)

SW 370 (MCCNM 370) Non-Profit Organizations and Communication 3(3-0)
A seminar course using cooperative teaching that integrates theory and practice to examine the basic elements of nonprofit organizations from economic, political, and social perspectives. Prerequisite: sophomore standing. (SS)

SW 481 Field Seminar I 3(3-0)
Capstone course which integrated knowledge, values, skills, and theory with micro, mezzo, macro generalist social work practice with diverse populations in various agency settings. Prerequisites: acceptance into the social work program; successful completion of all SW foundation courses. Corequisite: SW 488. (F,SS)

SW 482 Field Seminar II 3(3-0)
Capstone course which integrates knowledge, values, skills, and theory with micro, mezzo, macro generalist social work practice with diverse populations in various agency settings. Prerequisites: acceptance into the social work program; successful completion of all SW foundation courses, SW 481, SW 488, SW 492. Corequisite: SW 489. (S,SS)

SW 488 Field Placement I 5(0-16)
Complete 16 clock hours per week Fall semester or 32 clock hours Summer I Block for a total of 224 hours in an approved field practicum agency under the supervision of a professional social worker. Prerequisites: acceptance into the social work program and field practicum; successful completion of social work foundation courses. Corequisite: SW 481. (F,SS)

SW 489 Field Placement II 5(0-16)
Complete 16 clock hours per week Spring semester or 32 hours Summer II block placement for a total of 224 hours in an approved field practicum agency under the supervision of a professional social worker. Prerequisites: acceptance into the social work program and field practicum; successful completion of all social work foundation classes; SW 481, SW 488 and SW 492. Corequisite: SW 482. (S,SS)

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 492 Research 3(3-0)
Theory and application of continuing social work research designs and methodologies (qualitative and quantitative) utilizing single subject design, needs assessment, and program evaluation. Prerequisites: SW 210 or MATH 156 or PSYCH 201. (F,S)

SW 495 Independent Study (1-3 VAR)
Prerequisite: permission of instructor. (*)

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 370 Creative Dramatics 1(1-0)
Classroom techniques in dramatics for the teacher. (F,SS)

UNIVERSITY STUDIES (US)

UNDERGRADUATE COURSES

US 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)

US 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)

US 160 Principles of Leadership 3(3-0)
Study of leadership theories and principles. The course emphasizes components of leadership, gender, ethnic diversity in leadership styles, organizational forms, and personal capacity for leadership. Prerequisite: Acceptance into President's Leadership Program. (F)

US 201 Domestic Violence Theories-Family 3(3-0)
Explores five areas within the family system impacted by domestic violence. Victims and perpetrator issues, patterns of relationship abuse, effects on children. (F,S,SS)

US 202 Domestic Violence Theories-Society 3(3-0)
Explore societal impacts of domestic violence in relation to sociopolitical, multicultural, and gender issues. Review laws pertaining to domestic violence, and community resources. (F,S,SS)

US 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)

US 255 Residence Hall Advising 1(1-0)
Will teach student development theory, history of residence life, communication skills and assertiveness training which will enhance the quality of student leaders and resident advisors. (S)

US 260 Leadership in Service Organizations 3(2-2)
Lecture/experiential course outlining leadership practices through service learning in community settings. Open to PLP students only. Prerequisites: US 160, enrollment in PLP. (F)

US 291 Special Topics (1-3 VAR)
Special topics are offered to students in areas where regular course offerings are not available. (*)

US 320 Offenders and Addictive Behaviors 3(3-0)
Causes, stages and symptoms of addiction processes including cross tolerance and addiction substitutions. Differential interventions and treatment options are explored. Prerequisites: PSYCH 100 & SOC 101. (F,S,SS)

US 340 Evaluation and Interviewing Skills 3(3-0)
Addresses the skills and procedures needed to evaluate and develop appropriate treatment plans for voluntary and involuntary clients. Prerequisites: US 201 or US 202. Corequisite: PSYCH 362 (F,S,SS)

US 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)

US 355 Becoming an Effective Tutor 3(2-2)
Concepts and techniques of effective tutoring, including issues such as communication, rapport, confidentiality, learning styles, disabilities, and general study skills. Limited hands-on experience required.

US 360 Applied Leadership 3(3-0)
Leadership in action course applying needs assessments, analysis, strategy development, implementation and evaluation to a team project in private, public or nonprofit sector. PLP required. Prerequisites: US 260, enrollment in PLP. (F)

US 420 Counseling Techniques for Offenders 3(3-0)
Gain technical skills involved in counseling unmotivated and resistive clients in voluntary and involuntary program settings. Prerequisites: US 340, PSYCH 464 or SW 322. Corequisites: PSYCH 475 & SW 323. (F,S,SS)

US 460 Working with Experienced Leaders 3(1-4)
Lecture/practicum course assigning students to leader mentorship in public, private, or government sector. Leadership issues and challenges in a structured, but applied setting. Prerequisites: US 360, enrollment in PLP. (F,S,SS)

US 484 Field Placement I - Victim Services 3(0-7)
Acquire hours in victim services programs toward the necessary 1000 experience hours toward certification in DV counseling in Colorado. Prerequisites: US 201, 202, 340 & Instructor Permission. (F,S,SS)

US 485 Field Placement II-Substance Abuse Services 3(0-7)
Acquire hours in substance abuse services programs toward the necessary 1000 experience hours toward certification in DV counseling in Colorado. Prerequisite: US 320, 484 & Instructor Permission. (F,S,SS)

US 486 Field Placement III-Perpetrator Treatment Services 3(0-7)
Acquire hours in perpetrator treatment services programs toward the necessary 1000 experience hours toward certification in DV counseling in Colorado. Prerequisites: US 420, 485 & Instructor Permission. (F,S,S)

US 491 Special Topics (1-3 VAR)
Special topics are offered to students in areas where regular course offerings are not available. Prerequisites: junior or senior standing and permission of instructor. (*)

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 105) Understanding Human Diversity 3(3-0)
Americans live in a complex and diverse society. This course examines the nature, impact, and strategies for dealing with diversity in personal and social contexts. (*)

WS 206 (SOC 206) Gender and Society 3(3-0)
Examination and evolution of relationships between sex roles, culture, and societal institutions and processes, including an analysis of sexual stratification. (*)

WS 211 (PSYCH 211) Women and Society 3(3-0)
Statistical overview of the current status of women, followed by examination of theories concerning equality of the sexes. (F)

WS 212 (PSYCH 212) Sexism and Racism in America 3(3-0)
Dynamics of prejudice and discrimination in terms of sex and race; special attention to analysis of strategies for improving relations. (S)

WS 230 (NSG 230) Women, Health and Society 3(3-0)
Introduction to women's health issues and a basic understanding of how women's health has been influenced historically, culturally and by socio-economic factors. (*)

WS 231 (PSYCH, SOC 231) Marriage, Family, and Relationships 3(3-0)
Marriage and family from an institutional and relationship perspective; cross-cultural diversity, mate selection, marital dynamics, parenting, divorce, remarriage, emerging patterns. (F,S,SS)

WS 235 (MCCNM 235) Women and Media 3(3-0)
The historical and cultural implications of the mass media's portrayal of women and the extent of their media participation from colonial to contemporary times. (*)

WS 240 (CS 240) Chicana Writers 3(3-0)
Survey of Chicana writers from the early 1900s to the present. Along with the literature, aspects of history, sociology and politics will be incorporated. (*)

WS 291 Special Topics (1-3 VAR) (*)

WS 301 Theories of Gender and Culture 3(3-0)
Explores the range of feminist theories and their connections to feminist research. (F)

WS 305 (SOC 305) Crime and Women 3(3-0)
Exploration of social, cultural and political variables that create both women victims and women criminals. (*)

WS 306 (CS 306) La Chicana 3(3-0)
A social, cultural, and historical overview of the Chicana experience and contributions. (F,S)

WS 330 (MCCNM 330) Gender and Film 3(3-0)
A discussion course which examines gender roles in theatrical and documentary film while considering the perspective of producers, actors, and spectators and salient film theories. Prerequisite: upper division standing in MCCNM or Women's Studies. (*)

WS 335 Gender and Communication 3(3-0)
This course examines the ways that gender affects communication behaviors and helps develop an awareness of the processes that affect gender socialization and stereotyping. (*)

WS 340 (ENG 340) Women in Literature 3(3-0)
Intensive study of literature written by women, in historical, cultural, and critical contexts. Prerequisite: ENG 102. (*)

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 & Gender in European History 3(3-0)
Examines impact of women and ideas about gender on aspects of European history since 1500; and examines impact of historical changes on women and gender. Prerequisite: HIST 103 or permission of instructor. (*)

WS 428 (HIST, SOC 428) Women & Work 3(3-0)
Examines historical and contemporary issues for women of various economic, social, and ethnic groups, especially in the US; examines gender ideologies about paid, unpaid work. Prerequisites: junior or senior standing or permission of instructor. (*)

WS 453 (SOC 453) The Sociology of the Body 3(3-0)
Exploration of what it is like to live through (in/with/as) our female and male bodies. Examination of writings in the field of body studies. Prerequisite: SOC 101. (S)

WS 455 (SOC 455) Hate Crimes 3(3-0)
Examines assumptions about race, gender, sexuality, and others that are used to justify hate crimes; examines common forms, emphasizing causal factors and effects. Prerequisite: SOC 101. (*)

WS 490 Special Projects 3(3-0)
Open to WS minors, provides individualized instruction within a special interest area, under supervision of a faculty member approved for the project by WS program. Prerequisites: junior or senior standing 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 2006-2007

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COLORADO STATE UNIVERSITY SYSTEM

Penley, Larry, Chancellor of the CSUS System

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Lamborn, Alan, Chief Academic Officer

Martinez, Loretta, General Counsel

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Schirmer, Jim, Director of Marketing

Tusa, Rick, Vice Chancellor/Director of Internal Auditing

ADMINISTRATIVE OFFICES

OFFICE OF THE PRESIDENT

Chang, Lin, Director, Institutional Research & Analysis

Esquibel, Trisha, Executive Assistant to the President

Folda, Joe, Director, Athletics

Kennedy, Arrow, Interim Dean of Student Life and Development

Montoya, Tony, Director of Affirmative Action/Diversity/ Multicultural Center

Zaletel, Cora, Executive Director of External Affairs

OFFICE OF THE PROVOST

Carrasco, Hector, Dean, College of Education, Engineering, and Professional Studies

Druelinger, Mel, Director, Research & Sponsored Programs

Fuller, Rex, Dean, Hasan School of Business

Gonzales, Rhonda, Dean, University Library

Gomez, Cheryl, Principal, PSAS

Hatton-Montoya, Sharon, Director, Student Academic Services

Malm, James, Dean of Continuing Education

Marquesen, Victoria, Associate Dean, College of Education, Engineering, and Professional Studies

Marshall, Joseph, Director, Admissions and Records

Meyer, Russell J., Dean, College of Humanities and Social Sciences

Moreschini, Shelly, Director, President's Leadership Program

Niccoli, David A., Director, Information Technology Services and Chief Technology Officer

Proctor, Kristina G., Dean, College of Science and Mathematics

OFFICE OF THE VICE PRESIDENT FOR FINANCE AND ADMINISTRATION

Ballard, Joanne, Vice President for Finance and Administration

Cason, Craig, Director of Facilities Management

Davis, Lorna, Assistant Director of Budgets

Garcia, Ramón A., Director, Auxiliary Services

Gutierrez, Anita, Executive Assistant to the Vice President for Finance and Administration

McGivney, Sean, Director of Financial Aid

Nufer, Ken, Director, Human Resources; Disability Resource Officer

ADMINISTRATIVE/FACULTY

Carrasco, Hector, R. (1993) Dean of Education, Engineering, and Professional Studies and Professor of Engineering; BSME, MSME, University of Texas at El Paso; Ph.D., Texas A&M University

Fuller, Rex D. (2000) Dean of Hasan School of Business and Professor of Economics; BA, California State University, Chico; Ph.D., University of Utah

Gonzales, Rhonda (1999) Dean, University Library; BA, Colorado College; MSLIS, Simmons College

Marquesen, Victoria (1999) Associate Dean, Education, Engineering, and Professional Studies; BA, Colorado College; MA, University of Kansas; Ph.D., University of Kansas

Meyer, Russell J. (2000) Dean of College of Humanities and Social Sciences; BA, MA, Ohio State University; Ph.D., University of Minnesota

Proctor, Kristina G. (1989) Dean of College of Science and Mathematics and Professor of Chemistry; BS, Colorado State University-Pueblo; Ph.D., Colorado State University

ADMINISTRATIVE/PROFESSIONAL STAFF

Acosta, Katherine (1995) Project Coordinator, Upward Bound

Ahlers, Shawn L. (1991) Manager of Network and Systems Services, Information Technology Services; BS, Colorado State University-Pueblo

Asanovich, Emily (2004) Head Women's Volleyball Coach/Pool Manager, Athletics

Ballard, Joanne (2003) Vice President for Finance and Administration; BS, Metropolitan State College; BA, Briar Cliff College

Barela, Laura (2001) Graduation Evaluator, Records Office; BSW, Colorado State University-Pueblo

Bender, Angela (2005) Human Resource Specialist; BBA, Stephen F. Austin State University

Benesch, Susan (2001) Human Resources Associate; BSBA, University of Northern Colorado

Beyer, Cindy (2004) Manager, University Bookstore; BA, Washington State University

Borland, Barbara (1994) Lecturer and Sociology Program Administrator, Continuing Education; BS, Colorado State University-Pueblo; MA, University of Colorado, Colorado Springs

Brandt, Laura (2003) Director of Alumni Relations; BS, MBA, Colorado State University-Pueblo

Brewer, Margaret (1997) Systems Manager, Student Financial Services; BSBA, Colorado State University-Pueblo

Brown, Duane (2002) Director of Student Activities; BS, James Madison University; M.Ed., Northern Arizona University

Campbell, Howard (2002) Instructor Technology Support Specialist, Information Technology Center; BS, Colorado State University-Pueblo

Campbell, Joseph (1998) Manager Networked Systems, Information Technology Services; BS, Colorado State University-Pueblo

Cason, Craig (2004) Director of Facilities Management; BS, University of Colorado-Boulder

Catron, Rochelle (2004) Site Coordinator, MASS GEAR-UP; BA, California University of Pennsylvania; MA, University of Phoenix, Colorado Springs

Chambers, Pam (2000) Associate Director, Student Academic Services; BA, University of North Alabama; MSW, University of Alabama

Chang, Lin (2000) Director, Institutional Research and Analysis; BA, Fu Jen University (Taiwan); MA, Michigan State University; Ph.D., Michigan State University

Crawford, Linda (1988) Executive Assistant to the Provost and Vice President for Academic Affairs, Provost's Office; BS, Colorado State University-Pueblo

Crippin, James (2003) Director, Western Forensic Law Enforcement Training Center (WFLETC); BS, Missouri Western State College

Davis, Lorna (1976) Assistant Director of Budgets, Office of the Vice President for Finance and Planning; BSBA, Colorado State University-Pueblo

Dittburner, Diane (2005) Assistant Women's Basketball Coach and Weight Room Coordinator, Athletics; BS, California State University-Bakersfield

Drown, Kip 2005) Head Women's Basketball Coach, Athletics; BS, MS, Southwest Missouri State University

Duran, Elizabeth (2001) Degree Audit Specialist; Records Office; BS, University of Phoenix

Early, Alicia (2003) Assistant Director of Development for Annual Giving, CSU-Pueblo Foundation; BS, West Texas A&M University

Eberhart, Pat (2005) Head Coach Men's Basketball, Athletics; BSBA Adams State College, M.Ed., Colorado Christian University

Esquibel, Trisha (2003) Executive Assistant to the President; BA; University of Colorado-Boulder MBA, Colorado State University-Pueblo

Folda, Joseph (1987) Athletic Director, Athletics; BS, University of Northern Colorado; M.Ed., Eastern Washington University

Fraser-Mills, Michelle (2000) Accounting Manager, Student Financial Services; BS, Colorado State University

Gage, Mike (2004) Site Coordinator, MASS GEAR-UP; BA, Adams State College; M.Ed. Arizona State University

Gallegos, Samuel (2002) Counselor, Admissions; BSW, Colorado State University-Pueblo

Garbiso, Matt (2004) Station Manager for KTSC-FM, REV in Mass Communication Department; BS, Colorado State University-Pueblo

Garcia, Corrin (2002) Manager of Finance and Accounting, Continuing Education; BSBA, MBA, Colorado State University-Pueblo

Garcia, Ramón A. (2005) Director of Auxiliary Services; BS, Howard Payne University; MRE, Golden Gate Baptist Theological Seminary

Gjerde, Michelle B. (1997) Director, Career Center; BA, Colorado State University-Pueblo

Gomez, Cheryl (2002) Principal, Pueblo School for the Arts and Sciences; BS, Colorado State University-Pueblo, MA University of Phoenix

Gonzales, Felix (1992) Field Coordinator, Social Work; BA, Colorado State University-Pueblo; MSW, Arizona State University

Grutt, Elizabeth (2006) External Degree Student Advisor, Continuing Education; BS, Colorado State University-Pueblo; MA, University of Colorado at Colorado Springs

Gutierrez, Anita (1973) Executive Assistant to the Vice President for Finance and Administration

Haban, Pam (2005) Assistant Program Manager, Continuing Education Office at Colorado Springs Citadel Center; BS, Colorado State University, Fort Collins; MC, Arizona State University

Hartman, Josh (2005) Head Women's Golf Coach, Athletics; BA, Dakota Wesleyan University

Hatton-Montoya, Sharon (1994) Director, Student Academic Services; BA, University of Southern Colorado; MA, University of Colorado at Colorado Springs

Healy, Angela (2003) Program Manager External Degree Program, Continuing Education; BA, California State University-Stanislaus; MA, Chapman University

Herrera, Veronica (1995) Assistant Director, Southern Colorado Educational Opportunity Center; BSW, Colorado State University-Pueblo

Hill, John A. (2005) Assistant Program Manager, Continuing Education Office at Peterson Air Force Base; BA, Columbia College; MA, Chapman University

Hughes, Michal (2004) Assistant Director, Experiential Learning Center; BS, M.Ed., Hardin-Simmons University

Jantz, Stig (2002) Undergraduate Academic Advisor, Hasan School of Business; BA, California State University-Northridge

Jensen, Jennifer (1992) Associate Director, Admissions; BS, Colorado State University-Pueblo

Kelly, Todd (2003) Athletic Development and Major Gifts Officer, External Affairs; BS, Colorado State University-Pueblo

Kennedy, Arrow (2004) Interim Dean, Student Life and Development, Director, Residence Life and Housing; BA, MA, Ph.D., University of Northern Colorado

Koncilja, Geri (2001) Program Associate, Instructional Technology Center; BS, Colorado State University-Pueblo

Laino, Heidi (1997) Coordinator, International Recruitment; BSBA, MBA, Colorado State University-Pueblo

Lange, David (1993) Assistant Baseball Coach, Athletics; BS, Central Michigan; MA Eastern Michigan

Leitheiser, Bill (2004) Assistant Program Manager, Continuing Education Office at Fort Carson; BS, Southwest Missouri State University; MA, U.S. Naval War College

Lundahl, Sandra L. (1985) Counseling Manager, Student Financial Services; AAS, Colorado State University-Pueblo; BSBA, Colorado State University-Pueblo

Maes-Garcia, Patricia (2004) Site Coordinator, MASS GEAR-UP; AA, BS, Colorado State University-Pueblo; MA, Adams State College

Malm, James (2005) Dean, Continuing Education; BS, MPA, Penn State; D.M., University of Maryland

Manos, Michael D. (2003) Director, Southern Colorado Educational Opportunity Center; BS, Central Missouri State University; MA, Webster University; MA, University of Colorado at Colorado Springs

Marshall, Joseph (2004) Director, Admissions and Records; BA, MA, California State University-Fullerton

Martin, Lisa (2005) Assistant Volleyball Coach, Pool Manager, Aerobics Coordinator, EXHPR Instructor; BS, Colorado State University-Pueblo

Massey, Margie (2000) Curriculum Resource Coordinator, Southern Colorado Teacher Education Alliance; AGS, Pueblo Community College; BSBA, Colorado State University-Pueblo

McGivney, Sean (2006) Director of Financial Aid; BS, University of Vermont

McHugh, Kathryn M. (1981) Associate Director, Development Services; BSBA, Colorado State University-Pueblo

Medina, Mike (1988) Project Director, Upward Bound; AA, Trinidad State Junior College; BA, MA, Adams State College

Melin, Carl (1985) Associate Director of Transfer Admissions, Admissions; BA, Adams State College; MS, University of Southern California

Middleton, Mary (2005) Director, Math Learning Center; BA, Fort Lewis College; MS, University of Colorado-Colorado Springs

Minatta, Louis (1996) Graduation Evaluator, Records Office; AAS, Pikes Peak Community College; BS, Colorado State University-Pueblo

Montoya, Tony (2003) Director, Affirmative Action/ Diversity/Multicultural Center; BS, Metropolitan State College; MPA Bernard Baruch College

Moore, Aaron (2006) Sports Information Director/Home Events Manager, Athletics; BS, Colorado State University-Pueblo

Moore, Dennis (2002) Director, Hoag Hall; BA, Colorado State University-Pueblo

Moreschini, Shelly (2004) Director, President's Leadership Program; BS, Colorado State University-Pueblo; MA, Regis University

Mountin, Matthew (2004) Compliance Coordinator and Athletic Facilities Manager, Athletics; BA, Marquette University; J.D., Marquette University Law School

Nava, Roman (2000) Accounting Manager, Financial Services; BS, Colorado State University-Pueblo

Niccoli, David A. (1980) Director, Information Technology Services and Chief Technology Officer; AAS, BS, Colorado State University-Pueblo

Nichols, Steven (2004) Assistant Director, Veterans Upward Bound; BA, Professional Clear Teaching Credential, Humboldt State University

Nufer, Ken (2004) Director Human Resources and University's Disability Resource Officer; BSBM, University of Phoenix; PHR, Human Resource Certification Institute

Ornelas, Henry (2000) Project Specialist; BS, Colorado State University-Pueblo

Ortiz, Jennifer (2003) Assistant Softball Coach/Rawlings Field Coordinator, Athletics; AA, Otero Junior College; BA, University of North Alabama

Pando-Sanchez, Anita (2004) Site Coordinator, MASS GEAR-UP; BA, Colorado State University-Pueblo; MA, Adams State College

Paul, James (1992) Trainer, Athletics; BS, University of Utah

Peralta, Jamie (2004) Site Coordinator, MASS GEAR-UP; BS, Colorado State University-Pueblo; MSW, Rutgers University

Perez, Shawntelle (2005) Counselor, Admissions; BS, Colorado State University-Pueblo

Quintana-Benavidez, Dianne (2004) Project Counselor, Upward Bound; AA, Otero Jr. College; BS, Colorado State University-Pueblo; MA, Regis University-Denver

Regrutto, Paul (2002) Men's and Women's Assistant Soccer Coach, Athletics; BS, Colorado State University-Pueblo

Reynolds, Marcie (1987) Assistant Athletic Director, BS; Colorado State University-Pueblo

Rincon, Eric (2004) Pueblo Site Coordinator, Southern Colorado Educational Opportunity Center; BS, Colorado State University-Pueblo

Robertshaw, Scott (2004) Director, Experiential Learning Center; BS, Western Illinois University; MA Georgia College & State University

Robertson, Susan (2000) Laboratory Coordinator, Nursing; BSN, Colorado State University-Pueblo

Sanchez, Stan (1994) Head Baseball Coach, Athletics; BS, California State University; MA, Azusa Pacific University

Sciacca, Rick (2005) Transfer Coordinator, Admissions; BA, Colorado State University-Pueblo

Scott, Bob (1999) Men's and Women's Tennis Coach, Athletics; BA, Colorado State University-Pueblo

Showalter, Thomas S. (2002) Head Women's Softball Coach, Athletics; BA, MS, Adams State College

Silver-Chacon, Loisann (1994) Counselor, Upward Bound; BA, George Washington University; MA, Antioch University

Simpson, Amber (2004) Admin Assistant/Primary Evidence Technician, Chemistry/WFLETC; BS, Colorado State University-Pueblo

Sissom, Lia (1996) Special Assistant to the Chairs and Dean, Hasan School of Business; BA, MS, Western Illinois University

Smith, Darrin (2003) Assistant Trainer, Athletics and Clinical Instructor, EXHPR; BS, Concordia University-Mequon; MA, Western Illinois University

Stanley, Roy (1994) Head Coach, Men's and Women's Soccer, Athletics; BA, Princeton University; MA, University of Tulsa

Stultz, Fred (1999) Director, Student Counseling Center; BA, Colorado State University-Pueblo; Ph.D., Purdue University

Tafoya, Amy (2006) Transfer Student Counselor, Admissions; BS, University of Phoenix

Tenorio, Victor (2000) Educational Development Specialist, Student Support Services; BS, Colorado State University-Pueblo

Terry, Joseph (2006) Freshman Recruiter/Counselor, Admissions; BA University of Colorado

Thompson, Tracey (2004) Deputy Director, Western Forensic Law Enforcement Training Center (WFLETC); AA, Bristol Community College; BS, University of New Haven

Toth, John M. (2005) Finance Manager Auxiliary & Athletic Services, Auxiliary Service; BS, Colorado State University-Pueblo

Thorsten, Greg (2005) Counselor, Student Financial Services; BA, University of Northern Colorado

Trujillo-Aranda, Brenda (1996) Director, Student Support Services; AAS, Pueblo Community College; BS, Regis University; MA, Adams State College

Trujillo, Dana, (2005) Visitor Center Coordinator, Admissions; BS, Colorado State University-Pueblo

Trujillo-Sánchez, Gloria (1994) Director, MASS GEAR-UP; BA, Loretto Heights College; MA, Norwich University; Ph.D., Union Institute

Ukon, Kiyoshi (2000) Assistant to the Director/Auxiliary Services/Technical Support; BS, Colorado State University-Pueblo

Valdez-Hall, V. Vivian (1994) Coordinator, Southern Colorado Teacher-in-Residence Partnership; BA, Colorado State University-Pueblo; MA, Lesley University

Velarde, Katie (2004) Associate Director of Records; BSBA, MBA, Colorado State University-Pueblo

Waggener, Conrad (2005) Director, Veterans Upward Bound; BA, University of Colorado; MBA, University of Hawaii

Walda, Kevin (2005) Program Specialist, Veterans Upward Bound; BS, University of Colorado, Colorado Spring

Whatley, Nancy (1988) Assistant Director, Southern Colorado Educational Opportunity Center; AS, Otero Junior College

Whited, William Scott (2001) Project Coordinator, Southeastern Colorado American History Project; BA, University of Iowa; MA, University of California-Irvine

Williams, Annie (1994) Associate Director, Center for International Programs; BA, MBA, Colorado State University-Pueblo

Wong, Wing Chi (2005) Counselor, Admissions; BSBA Colorado State University-Pueblo

Yang, Sixian (2005) Institutional Research Analyst, Institutional Research and Analysis; BA, Peking University; MBA, Marquette University

Zaletel, Cora (2002) Executive Director, External Affairs; BS, MA, Emporia State University; Ph.D., ABD, University of Kansas

RANKED FACULTY

The following individuals were ranked faculty members in the 2006-2007 academic year. The date in parenthesis indicates the initial year of regular appointment to the ranked faculty.

Abrahamson, Gayle (1985) Associate Professor of Library Services; AA, Golden Valley Lutheran College; BA, Concordia College; MAR, Iliff School of Theology; MA, University of Denver

Ahmadian, Ahmad (1985) Associate Professor of Management; BA, Tehran University; MBA, Ph.D., North Texas State

Applbaum, Ronald (2002) Professor of Management; BS, MS, California State University, Long Beach; Ph.D., Pennsylvania State University

Aviña, Maya (1995) Associate Professor of Art; BA, Humboldt State University; MFA, University of California at Santa Barbara

Baca, Judy M. (1981) Associate Professor of Social Work; BS, Colorado State University-Pueblo; MSW, Arizona State University

Bailey, Wade H. (1993) Professor of Mechanical Engineering Technology; BS, West Virginia University; MS, Air Force Institute of Technology

Barber, Margaret (1995) Associate Professor of English; BA, MA, Ph.D., Texas Christian University

Barnett, Janet H. (1990) Professor of Mathematics; BS, Colorado State University; MA, Ph.D., University of Colorado

Berardi, Gayle K. (1994) Professor of Political Science; BA, MA, University of Colorado at Colorado Springs; Ph.D., University of Colorado

Billington, Peter J. (1989) Professor of Management; BS, Worchester Polytechnic Institute; MBA, Northeastern University; Ph.D., Cornell University

Binggeli, Nelson J. (2004) Assistant Professor of Psychology; BA, Indiana University; MS, Indiana University; Ph.D., Georgia State University

Bonetti, Sandra J. (1991) Professor of Chemistry; BS, Ph.D., Georgia Institute of Technology

Borton, John M. (1983) 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

Brennan, Ian (2003) Assistant Professor of Marketing; BA, University of Nottingham; MBA, University of Evansville; Ph.D., University of Texas-Arlington

Brown, William C. (2000) Associate Professor of Physics; BA, Wayne State University; MS, Ph.D., University of Colorado

Browne, James H. (1991) Professor of Management; BA, MA, Western Illinois University; Ph.D., University of Illinois

Calhoun-Stuber, Susan (1994) Assistant Professor of Sociology; BA, Knox College; MA, Ph.D., University of Denver

Caprioglio, Daniel (1993) Professor of Biology; BA, University of California at Los Angeles; Ph.D., North Carolina State University

Caprioglio, Helen M. (1995) Associate Professor of Biology; BS, MS, Oregon State University; Ph.D., North Carolina State University

Carter, Colette (1994) Assistant Professor of Political Science; BA, Incarnate Word College; MA, Catholic University; Ph.D., University of Washington

Chacon, Paul R. (1990) Professor of Mathematics; BS, University of British Columbia; Ph.D., University of Washington

Chi, Jacob (1997) Professor of Music and Conductor of the symphony; BA, Siena Heights College; MA, School of Music, University of Michigan; Ph.D., Michigan State University

Clark, Laura (2002) Clinical Instructor of Athletic Training, EXHPR; BS, Pennsylvania State University; MS, University of Arizona

Clark, Roger (2002) Director of Athletic Training Education and Assistant Professor, EXHPR; BS, University of Illinois; MS, University of Arizona; Ph.D., University of Pittsburgh

Cobián, Dora Luz (1995) Associate Professor of Spanish; BA, MA, University of California at San Diego; Ph.D., University of California at Riverside

Collins, David C. (2003) Assistant Professor of Chemistry; BS, Weber State University; Ph.D. Brigham Young University

Conroy, Colleen (2001) Clinical Instructor of Athletic Training, EXHPR; BS, New Mexico State University; MSEd., Northwest Missouri State University

Covi, Silvio (1986) Professor of French and Italian; B.Th., Universitas Urbaniana, Rome, Italy; MA, Ph.D., State University of New York at Buffalo

Dallam, George (1999) Associate Professor of Exercise Science, Health Promotion and Recreation; BS, MS, University of Arizona; Ph.D., University of New Mexico

Dalton, Dennis (1993) Professor of Art; BA, University of Toledo; MFA, University of Utah

Darby, Ronald L. (1991) Associate Professor of Automotive Industry Management; AAS, BS, Colorado State University-Pueblo; MA, Colorado State University-Pueblo

DePalma, Jude (1997) Associate Professor of Engineering; BSEE, University of Florida; MSEE, Purdue University; Ph.D., Colorado State University

DePalma, Ruth (1995) Associate Professor of Nursing; BSN, John Hopkins University; MSN, University of Florida

Derr, James, B. (1984) Professor of Mathematics; BA, College of St. Thomas; Ph.D., Michigan State University

Diawara, Moussa (1993) Professor of Biology; BS, Institute Polytechnique Rural de Katibougeu, Mali, West Africa; MS, Ph.D., University of Georgia

Dillon, David (2005) Assistant Professor of Chemistry; BS, MS, East Texas State University; Ph.D., University of Wyoming

Druelinger, Melvin L. (1984) Professor of Chemistry; BS, Indiana University; Ph.D., University of Wisconsin

Duncan, James L. (1958) Professor of Music; BM, Central College; MM, Eastman School of Music

Duncan, Kevin C. (1994) Professor of Economics; BA, University of California at Riverside; Ph.D., University of Utah

Ebersole, Samuel (1990) Professor of Mass Communications; BA, Southern California College; MA, Ph.D., Regent University

Eriksen, Scott (2005) Assistant Professor of Accounting; BS, University of Illinois; MS, Ph.D., University of North Texas

Forsyth, Dan W. (1983) Professor of Anthropology; BA, University of California at Los Angeles, MA, University of Chicago; Ph.D., University of California at San Diego

Foster, Fatu (2005) Associate Professor of Nursing; BSN, MS, University of Brussels; Ph.D., University of Illinois

Foust, Carol (2001) Professor and Department Chair of Exercise Science, Health Promotion, and Recreation; BS, MS, University of New Mexico; M.Ed., Lamar University; Ph.D., Texas A&M University

Frank, Katherine (2001) Assistant Professor of English; BA, Bates College; MA, Ph.D., University of Washington

Frankmann, Sandra (1993) Professor of Psychology; BA, Simmons College; Ph.D., University of Washington at Seattle

Fraser, Jane (1998) Professor and Department Chair, Engineering; BA, Swarthmore College; MS, Ph.D., University of California at Berkeley

Frye, Barbara (2005) Assistant Professor of Education; BA, Colorado College; Ph.D., University of Minnesota

Gabaldon, Annette (2004) Assistant Professor of Biology; BS, New Mexico State University; Ph.D., University of California-Davis.

Glaublenskiee, Carolyn (2004) Associate Professor of Nursing; BS, Colorado State University-Pueblo; MS, Ph.D., University of New Mexico, Albuquerque

Gomme, Ian (1995) 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, Rhonda (1999) Associate Professor of Library Services; BA, Colorado College; MSLIS, Simmons College, Boston

Gose, Mark N. (2004) Associate Professor of Political Science; BA; New Mexico State University; MA, Naval Post Graduate School-Monteray; Ph.D., University of Colorado

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

Hanks, Bettye Sue (1994) Professor of Business Administration; BS, MS, Henderson State University; Ed.D., University of Arkansas

Hansen, Richard (1993) Professor of Art; BA, College of William and Mary; MLA, University of Colorado

Hansen, Victoria (1993) Professor of Art; BA, College of William and Mary; MFA, Kansas State University

Harris, Mathew L. (2005) Assistant Professor of History; BA, MA, Brigham Young University-Provo; Ph.D., Syracuse University

Herrmann, Scott J. (1968) Professor of Biology; BS, Northern Illinois University; Ph.D., University of Colorado

Hirth, Alan (1976) Assistant Professor of Civil Engineering Technology; BA, University of Colorado

Howell, Kris (1999) Associate Professor of Computer Information Systems; BSBA, Colorado State University-Pueblo; MBA, University of Arkansas; Ph.D., Colorado State University

Hudock, Sandra (1997) Associate Professor of Library Services; BA, Gordon College; MSLS, University of Kentucky

Hudson, Mark (2001) Associate Professor of Music; BA, Harding University; MM, Ph.D., University of Florida

Huff, Richard A. (1997) Associate Professor, Computer Information Systems; BS, San Diego State University; MS, North Texas State University; Ph.D., University of North Texas

Ihm, Dana E. (2005) Assistant Professor of Music; BA, MM, Pittsburg State University; Ph.D., University of South Carolina

Jaksic, Nebojsa I. (2000) Associate Professor of Engineering; BSEE, Belgrade University, Belgrade, Yugoslavia; MSEE, MSISE, Ph.D., Ohio State University

Janos, Vicky (2003) Associate Professor of Nursing; BS, MS, University of Colorado

Johnson, Elizabeth (2001) Assistant Professor of Art; BFA, MFA, Massachusetts College of Art

Johnston, Rhonda (1990) Professor of Nursing; BS, University of Phoenix; MS, University of Colorado; Ph.D. Colorado State University

Joyce, Richard (1995) Associate Professor of Mass Communications; BA, University of Scranton, Pennsylvania; BS, Colorado State University-Pueblo; MA, University of Colorado at Boulder

Kalevela, Sylvester (2005) Associate Professor of Civil Engineering Technology; BS, University of Dar-es-Salaam; MS Virginia Tech; Ph.D., Arizona State University

Kartchner, Eric J. (2005) Associate Professor of Spanish; BA, Weber State University; MA, University of Nevada-Reno; Ph.D., Indiana University

Keplinger, David (2000) Associate Professor of English; BA, MFA, Pennsylvania State University

Kleszynski, Margaret (2000) Associate Professor of Library Services; BA, Benedictine College; MLS, Kent State University; MS, University of Portland

Kulkosky, Paul J. (1984) Professor of Psychology; BA, Columbia College; MA, Columbia University; Ph.D., University of Washington

Lehmpuhl, David (1998) Associate Professor of Chemistry and Department Chair, Chemistry; BS, University of Colorado at Colorado Springs; Ph.D., University of Colorado at Boulder

Levy, Patricia (1991) Associate Professor of Psychology; BS, University of Bridgeport; MA, University of Colorado; Ph.D., Oklahoma State University

Loats, Carol (1993) Associate Professor of History; BA, College of Wooster; MA, University of Colorado; MA, University of Northern Colorado; Ph.D., University of Colorado

Louisell, James (1989) Professor of Mathematics; BS, Ph.D., University of Minnesota

Lundberg, Bruce (1993) Professor of Mathematics; BS, Grand Canyon University; MA, Arizona State University; MA, Fuller Theological Seminary; Ph.D., Colorado State University

Madrid, Leasher Dennis (1976) Professor of Psychology; BA, Colorado State University-Pueblo; MS, New Mexico Highlands University; Ph.D., University of California at Santa Barbara

Martinez, Lee Anne (1992) Associate Professor of Biology; BA, University of California at Santa Barbara; MA, University of California at Santa Cruz, Ph.D., Cornell University

McGettigan, Timothy (2000) Associate Professor of Sociology; BA, University of California, Santa Barbara; MA, Ph.D., Washington State University

McLean, Janna R. (2003) Associate Professor of Biology and Department Chair; BA, Hope College; Ph.D., Carnegie Mellon University

Melnykov, Igor (2005) Assistant Professor of Mathematics; BS Kharkov State Polytechnic University, Kharkov, Ukraine; Ph.D., Bowling Green State University

Mincic, Michael (2005) Assistant Professor of Civil Engineering Technology; BSCET, Colorado State University-Pueblo; M.Ed., Colorado State University

Montgomery-Ratcliff, Barbara M. (2001) Professor of Speech; BS, Ball State University; MA, Memphis State University; Ph.D., Purdue University

Mullen, Jennifer (1990) Professor of Mass Communications; BA, Colorado State University-Pueblo; MA, University of Northern Colorado

Nichols, Janet G. (1977) Assistant Professor of Mathematics; BA, Adelphi University; MS, Lehigh University

Noel, Judy (2003) Associate Professor of Social Work; BA, University of Wisconsin-Oshkosh; MSW, University of Wisconsin-Milwaukee; Ph.D. University of Southern California

Orman, Patricia (1978) Associate Professor of Mass Communications and Academic Director, President's Leadership Program; BA, University of New Hampshire; MA, University of Northern Colorado; Ph. D., University of Colorado-Denver

Orr, Gilbert F. (1977) Associate Professor of Mathematics; BA, St. John's University; MS, Ph.D., University of Miami

Pardue, Karen (2005) Instructor of Library Services; BA, University of Colorado-Colorado Springs; MSLIS, University of Illinois

Peters, Jennifer S. (2005) Assistant Professor of Music; BA, MM, Sam Houston State University; Ph.D., St. Louis University

Piazza, Jenny (1996) Associate Professor of Education; BA, Park College; MA, Adams State College; Ed.D., Oklahoma State University

Pratarelli, Marc E. (1999) Professor of Psychology; BA, University of California, San Diego; MA, Ph.D., University of Southern California

Rees, Jonathan (1999) Associate Professor of History; BA, University of Pennsylvania; MA, Ph.D., University of Wisconsin-Madison

Regassa, Hailu (1989) Associate Professor of Finance; BBA, Haile Selassie University, Ethiopia; MBA, Ph.D., University of Oregon

Reilly-Sandoval, Arlene (2004) Assistant Professor of Social Work; BA, University of Colorado-Colorado Springs; MA, Colorado State University

Ribandeneira, Alegria (2006) Assistant Professor of Spanish; BA, Fort Lewis College; MA, Ph.D., University of Florida, Gainesville

Rochester, Christine (2000) Associate Professor Exercise Science, Health Promotion, and Recreation; BS, Indiana University of Pennsylvania; MS, Canisius College; Ed.D., University of Northern Colorado

Rodríguez-Arenas, Flor María (1995) 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

Rodriguez, Grace C. (2003) Assistant Professor of Nursing; BSN, Colorado State University-Pueblo; MS, University of Colorado; Ph.D. Colorado State University

Ryan, John E. (1980) Professor of Education; BA, University of California at Los Angeles; MA, California State University at Northridge; MA, Ph.D., Claremont Graduate School

Sandoval, David A. (1980) Professor Chicano Studies and History; BS, Eastern New Mexico University; MA, Southern Methodist University; Ph.D., University of Utah

Sarper, Hüseyin (1988) Professor of Engineering; BS, The Pennsylvania State University; MS, Ph.D., Virginia Polytechnic Institute and State University

Sauer, Wolfgang (1993) 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 Industry Management; AAS, BS, MA, Colorado State University-Pueblo

Seilheimer, Jack A. (1963) Professor of Biology, BS, Western Michigan University; Ph.D., University of Louisville, Kentucky

Shah, Abhay (1988) Professor of Marketing; BA, St. Xavier's College (Calcutta University); MBA, University of Evansville; Ph.D., Oklahoma State University

Sheidley, William E. (1994) Professor of English; BA, MA, Ph.D., Stanford University

Sinkhorn, E. Keith (2004) Assistant Professor of Engineering; BS, Brescia College; MA, Ph.D., University of Louisville

Smith, Darrin M. (2004) Assistant Professor of Athletic Training; BS, Concordia University; MS, Western Illinois University

Sonnema, Roy B. (2000) Professor of Art; BA, Calvin College; MA, California State University Fullerton; Ph.D., University of California at Berkeley

Spade, Beatrice (1993) Associate Professor of History; BA, University of Colorado; MA, University of Hawaii; MA, National Taiwan University; Ph.D., Harvard University

Spencer, Dawn (2004) Assistant Professor of Computer Information Systems; BS, MS, Ohio State University

Steffen, Leticia (2004) Assistant Professor of Mass Communications; BA, Saint Louis University; MA, University of Denver

Stuyt, Jeff A. (1999) Associate Professor of Exercise Science, Health Promotion, and 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

Suscheck, Charles (2003) Assistant Professor of Computer Information Systems; BS, Edinboro University of Pennsylvania; MS, Cleveland State University; DCS, Colorado Technical University

Taylor, Cynthia (1989) Associate Professor of English; BA, MA, University of Idaho; Ph.D., University of Minnesota

Taylor, Ted (1990) Assistant Professor of English; BA, MA, University of Idaho; Ph.D., University of Minnesota

Vanden Heuvel, Brian D. (2004) Assistant Professor of Biology; BS, Colorado State University; Ph.D., University of Texas at Austin

Wakefield, Michael (2000) Associate Professor of Management; BA, MBA, New Mexico State University; Ph.D., University of Nebraska-Lincoln

Wallin, Marta J. (1987) Associate Professor of Physics; MS, Jagiellonian University, Kracow, Poland; Ph.D., University of Wyoming

Waronska, Agnieszka (2005) Assistant Professor of Management; MS, Silesian University of Technology; ABD, University of Toledo

Whited, Hsin-hui (2001) Assistant Professor of Economics; BS, Soochow University; MA, Ph.D., The Claremont Graduate School

Wilkes, Linda M. (1983) Professor of Chemistry; BA, California State University; Ph.D., University of Nevada at Reno

Wolf, Brian (2005) Assistant Professor of Sociology; BS, Boise State University; MS, Ph.D., University of Oregon

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) Professor of Business Administration; BA, University of St. Thomas; MS, Ph.D., Texas A & M University

LECTURERS

Clifton, Chas (1992) Lecturer of English; BA, Reed College; MA, University of Colorado

Daugherty, Geraldine (1990) Lecturer of English; BA, Mount Saint Joseph; MS, St. Francis College

Hadley, Barbara (2003) Lecturer of Psychology/ Counselor, Student Counseling Center; BS, Colorado State University; MA, Adams State College

Hawthorne, James (2005) Lecturer of English; BA, University of Kansas; MA, State University of New York at Stony Brook

Matusiak, Frederick C. (2005) Lecturer of History; BA, Iona College; MA, Ph.D., University of Nebraska

Morales, Lauren (2005) Lecturer of Spanish; BA, Colorado State University-Pueblo; MA, University of New Mexico

Nelson, Lisa (2005) Lecturer of Speech Communication; BA, MA, Colorado State University

Saphara, Jason (2002) Lecturer of English; BA, Colorado State University-Pueblo; MA, Kansas State University

Todd, Christine (2005) Lecturer of Accounting; BS, Metro State University; MS, University of Colorado at Denver

Watkins, Tamara (1998) Lecturer, Mathematics; BA, Colorado School of Mines; MSANS, Colorado State University-Pueblo

Wink, Geri (2004) Lecturer of Accounting; BBA, MBA, Sam Houston State University

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

Beck, Barbara (2000) Artist-in-Residence, Music; BA, University of Colorado; MM, Colorado Sate University; MM, University of Northern Colorado

Dobrotvorskaia, Ekaterina (2001) Artist-in-Residence, Veronika String Quartet; BA, DMA, MM, Moscow State Conservatory

Eastin, Charles Brad (2005) Artist-in-Residence, Music; BA, MM, University of South Florida

Eberhardt, Allan R. (1999) Artist-in-Residence, Music; BA, University of New Mexico; Graduate USAF NCO Academy

Garibova, Karine (1999) Artist-in-Residence, Veronika String Quartet; BA, MM, Gnesins' Russian Academy of Music; DMA, Gnesins' State Institute of Music; MM, Miami University of Ohio

Guideri, Danielle (2004) Artist-in-Residence, Veronika String Quartet; BA, MA, Queens College, Aaron Copland School of Music

Mendoza, Dorothy (1990) Artist-in-Residence; BA, Colorado State University-Pueblo

Mendoza, John (1990) Artist-in-Residence; AA, Pueblo Junior College; BA, MA, University of Northern Colorado

Turner, Aaron (2005) Artist-in-Residence; Music; BM, Lawrence University; MM, University of North Texas

Turner, John (2005) Artist in Residence, Music; BA Colorado State University-Pueblo; MM, University of Colorado

PUEBLO SCHOOL OF ARTS AND SCIENCES

Allen, Natalie (2000) Instructor
Annand, Carol (1995) Instructor
Berg, Tara (2004) Instructor
Cummings, Beth Ann (2002) Instructor
Feliciano-Maldonado, Clarissa (2000) Instructor
Fry, Debbie (2005) Instructor
Gagliardi, Lisa (2001) Instructor
Gomez, Cheryl (2002) Principal
Hall, Jessica (2005) Instructor
Hartgraves, Stephanie (1994) Instructor
Lagrotteria, Troy (2004) Instructor
LeFebre, Jess, (2002) Assistant Principal
Lieder, Theresa (2000) Attendance Secretary
Lucero, Marilyn (1998) Instructor
Maez, April (2000) Instructor
Marino, Michael (2002) Instructor
Martindale, Gina (2000) Instructor
McKinsey, Sara (1996) Instructor
Medina Evelyn (2000) Counselor
Montano, Julia (2005) Instructor
Moser, Shannon (2005) Instructor
Nava, Richelle (2004) Instructor
Oreschnick, Darlene (2004) Instructor
Ramu, Cynthia (1998) Instructor
Riccillo, Maria (2004) Instructor
Ripke, Melanie (2004) Instructor
Rodell, Christina (2003) Instructor
Romero, Nancy (2004) Instructor
Ruder, Cecile (2005) Instructor
Sherwood, Amanda (2003) Instructor
Sisson, Donna (2005) Instructor
Stephenson, Peggy (2003) Secretary to the Principal
Vargas, Denise (2003) Instructor
Wach, Charles (2003) Instructor

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Aguilar, Kay M. (1964-1999) BS, MA, Ed.D., Professor Emerita of Exercise Science and Health Promotion

Aichele, Ronald G. (1972-2006) BA, MA, Ph.D., Professor Emeritus of Philosophy

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Anderson, Deyrol E. (1983-2002) BA, MA, Ph.D., Professor Emeritus of Mass Communications

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

Baldauf, Boyd J. (1964-1988) BS, MA, Ed.D., Professor Emeritus of Computer Science Technology

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Bartlett, Thomas J. (1967-1977) BS, MA, Professor Emeritus of Mathematics

Bassein, Beth Ann (1966-1991) BA, MA, Ph.D., Professor Emerita of Speech Communication

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Blandford, Robert D. (1965-1989) BS, MA, DA, Professor Emeritus of Mathematics

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Bond, John A. (1967-1984) BS, MA, Ph.D., Professor Emeritus of Political Science

Boss, Marion L. (1964-1984) BSBA, MSBE, Ed.D., Professor Emerita of Business Administration

Bottini, Patrick W. (1968-1999) BS, MA, Professor Emeritus of Industrial Science and Technology

Bradley, Lawrence B. (1966-1988) BA, MA, Professor Emeritus of Speech Communication/ Theater

Brassill, Joann A. (1967-1987) BA, MA, MFA, Professor Emerita of Art

Bright, Leon A. (1963-1995) BS, MA, Ph.D., Professor Emeritus of Foreign Language

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Chen, Frank (1982-2005) BSME, MSME, Ph.D., Professor Emeritus of Mechanical Engineering Technology

Cheng, Joseph K. (1973-2005) BS, MS, Ph.D., Professor Emeritus of Civil Engineering Technology

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Driscoll, Donald J. (1965-2001) BA, MA, Ph.D., Professor Emeritus of Philosophy

Eisenbeis, Richard H. (1988-2005) BA, MS, Ph.D., Professor Emeritus of Management and Marketing

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

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Gill, John (1971-1999) BS, MA, Ph.D., Professor Emeritus of Mathematics

Graham, Robert E. (1980-1999) BS, MS, Ph.D., Professor Emeritus of Physics

Hammer, Charles R. (1964-1995) BS, Ph.D., Professor Emeritus of Chemistry

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Hobbs, Harold C. (1966-1984) BA, MA, Ph.D., Professor Emeritus of Psychology

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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

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Keller, Robert L. (1974-2005) BA, MS, Ph.D., Professor Emeritus of Sociology

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

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Massey, Frank A. (1963-2003) BIE, BBA, MS MFA, Ph.D.,Professor Emeritus of Engineering

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UNIVERSITY CALENDAR 2007-2008

FALL	**2007**
Graduation Planning Sheets Due	Feb. 2 (07)
Registration Begins	March 5
Open Registration	Aug. 24
Classes Begin	Aug. 27
End Drop/Add	Sept. 10
Thanksgiving Break	Nov. 19-23
Classes End	Dec. 7
Final Exams	Dec. 10-14

SPRING	**2008**
Graduation Planning Sheets Due	Sept. 14 (07)
Registration Begins	Oct. 22
Open Registration	Jan. 11
Classes Begin	Jan. 14
End Drop/Add	Jan. 28
Spring Break	**TBD
Classes End	April 25
Final Exams	April 28-May 2
Commencement	May 3

SUMMER	**2008**
Graduation Planning Sheets Due	Feb. 1 (08)
Registration Begins	**TBD
Open Registration	May 9
First 4, 6 and 12-week Sessions	
Classes Begin	May 12
End Drop/Add	
First 4-week	May 14
First 6-week	May 15
12-week	May 21
Memorial Day (University Closed)	May 26 (M)
Classes End	
First 4-week	June 5
First 6-week	June 19
12-week	July 31
Second 4-week Session	
Classes Begin	June 9
End Drop/Add	June 11
Independence Day (University Closed)	July 4 (F)
Classes End	July 3
Second 6-week Session	
Classes Begin	June 23
End Drop/Add	June 26
Classes End	July 31
Third 4-week Session	
Classes Begin	July 7
End Drop/Add	July 9
Classes End	July 31

Note: These Calendars are planned in advance and are subject to change.
**** TBD - To be determined at a later date**

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