

## **GENERAL INFORMATION**

### **The College**

The Metropolitan State College of Denver is the largest public four-year college in the United States. The college offers arts and sciences, professional and business courses and programs to a diverse student population. Excellence in teaching and learning is MSCD's primary objective.

The college's mission is to provide high-quality, accessible, enriching education that prepares students for successful careers, postgraduate education and lifelong learning in a multicultural, global, and technological society. The college fulfills its mission by working in partnership with the community at large and by fostering an atmosphere of scholarly inquiry, creative activity and mutual respect within a diverse campus community.

More than thirty years ago, the state legislature created MSCD as Colorado's urban "College of Opportunity." Since then it has occupied an important niche in the state's system of higher education, because, by statute, it was designed to be unique.

- MSCD is required to serve adult students. First-time college students who are 20 years of age or older and hold a GED or high school diploma are automatically admitted to MSCD, irrespective of their academic record.
- MSCD is required to serve traditional-aged students of all levels of achievement and potential. As a result, the college enrolls a rich mix of recent high school graduates, many with excellent grades and test scores and others with more modest achievement.
- MSCD is required to be accessible to all citizens. That is why tuition has been and remains among the lowest in the state.

The college's role and mission are rooted in a commitment to excellence in teaching and learning. MSCD graduates praise faculty for their attention to teaching and willingness to help students succeed. According to a survey of college and university alumni conducted for the Colorado Commission on Higher Education (CCHE), MSCD alumni ranked the college number one in meeting their educational goals. In fact, 99 percent of the college's graduates said MSCD's programs and curriculum met their goals.

The college awards bachelor of science, bachelor of arts and bachelor of fine arts degrees. Students can choose from 49 majors and 70 minors offered through three schools: Business; Letters, Arts and Sciences; and Professional Studies. Programs range from the traditional disciplines, such as history and biology, to contemporary fields of study, such as Chicano studies and health care management. The college offers several bachelor's degree programs unique in Colorado, including aviation management, health care management, land use, meteorology, and surveying and mapping. Students may also design their own degree through the Individualized Degree Program.

### **Students**

As an urban college committed to serving the local community, MSCD attracts students from a diverse mixture of age groups, socioeconomic classes, ethnic backgrounds and lifestyles. The college's curriculum and philosophy reflect that diversity and enrich the urban experience.

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Current enrollment is 17,307. Students range in age from 17 to 70 with a median age of 24. Ethnic minorities make up 24 percent of the students.

About 55 percent of students are enrolled full-time and 80 percent work full-or part-time. Sixteen percent are traditional students, beginning college before age 20, while 84 percent represent nontraditional age groups. Ninety-five percent of students reside in the six counties of the Denver metropolitan area:

Adams 12%	Denver 31%
Arapahoe 19%	Douglas 5%
Boulder 3%	Jefferson 25%

## Faculty

MSCD has nearly 400 full-time faculty. Professors are master teachers, recruited and evaluated for their ability to teach and engage students. All classes are taught by academic instructors. As a culturally diverse team of academicians, 34 percent of full-time faculty are women and 20 percent represent ethnic minorities.

The MSCD faculty is among the most productive in the state. In 1996, the CCHE reported that each full-time faculty member was responsible for teaching 21.5 credit hours, which is at least 9 credit hours more than the number taught at Colorado's two largest universities.

The college also brings real-world education into the classroom by hiring part-time faculty who work in the Denver metropolitan community and use their expertise and experience in the arts, business, communications, law, politics, the sciences and technology in their teaching.

## The Campuses

The Metropolitan State College of Denver is located at the Auraria Higher Education Center, a 127-acre campus in downtown Denver at Speer Boulevard and West Colfax Avenue. The Community College of Denver and the University of Colorado at Denver share the facilities with MSCD.

The campus includes more than one million square feet of space for classrooms, laboratories, and offices. Some administrative offices are located in restored Victorian homes in Denver's historic Ninth Street Park located on the Auraria site. The campus also features a child care center, a comprehensive library housing 731,000 volumes, and one of the most unusual student union facilities in the country -- the historic Bavarian-style Tivoli Brewery Building. Excellent physical fitness facilities include a block-long physical education/events center with a swimming pool, a weight room, game courts, dance studios, and event seating for 3,000.

The Auraria Higher Education Center's proximity to downtown Denver enables students and faculty to use the community as a learning laboratory and to connect classroom theory to the cultural, economic, social, and political practices of the city.

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The college also has two satellite campus sites operated by the Extended Campus Program. Metro South, located at 5660 Greenwood Plaza Boulevard in Arapahoe County, serves the south, southeast, and southwest metropolitan areas. Metro North, located at 11990 Grant Street in Adams County, serves the north, northeast, and northwest areas. Each site is located 14 miles from the Auraria campus along the I-25 corridor.

A variety of courses are offered during the evenings and on Saturdays on the Auraria campus and at Metro South and Metro North. Twenty-four degree programs can be completed entirely by taking courses scheduled during the evenings and weekends. MSCD offers classes in traditional formats as well as telecourses, online courses and correspondence courses. General information about these programs can be obtained from the Office of Admissions or the Academic Advising Center. The *Class Schedule* clearly identifies all evening and weekend courses.

## 2000-2001 ACADEMIC CALENDAR

<b>2000 Fall Semester</b>	
Orientation*	April 18-August 19
Registration	April 17-August 19
Classes start	Monday, August 21
Labor Day (campus closed)	Monday, September 4
Thanksgiving Day (campus closed)	Thursday, November 23
Friday after Thanksgiving (campus open, no classes)	Friday, November 24
Classes end	Saturday, December 9
Final exams begin	Monday, December 11
Final exams end	Saturday, December 16
Commencement (tentative**)	Sunday, December 17
<b>2001 Spring Semester</b>	
Orientation*	Mid-November-January 16
Registration	Mid-November-January 16
Martin Luther King, Jr. Day (campus open, no classes)	Monday, January 15
Classes start	Tuesday, January 16

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Spring Break	Monday-Saturday, March 19-24
Classes end	Saturday, May 5
Final exams begin	Monday, May 7
Final exams end	Saturday, May 12
Commencement (tentative**)	Sunday, May 13
<b>2001 Summer Semester</b>	
Orientation and registration	Monday-Friday, May 21-25
Memorial Day (campus closed)	Monday, May 28
Classes start	Tuesday, May 29
Independence Day (campus closed)	Wednesday, July 4
Classes end	Saturday, August 4
<b>2001 Fall Semester</b>	
Orientation and registration	Monday-Friday, August 13-17
Classes start	Monday, August 20
Labor Day (campus closed)	Monday, September 3
Thanksgiving Day (campus closed)	Thursday, November 22
Friday after Thanksgiving (campus open, no classes)	Friday, November 23
Classes end	Saturday, December 8
Final exams start	Monday, December 10
Final exams end	Saturday, December 15

\*For orientation call 303-556-3559

\*\*Call 303-556-6226 to confirm time and location.

## **DEGREES AND PROGRAMS**

The Metropolitan State College of Denver is organized into three schools. The schools are

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listed below with the majors and minors offered by each. The curriculum requirements for each of the programs are described in the *Catalog* in the special sections prepared by each school. Programs marked with an asterisk (\*) do not require completion of a minor.

	Major	Minor	Degree
<b>School of Business</b>			
<a href="#">Accounting</a> *	X	x	B.S.
<a href="#">Computer Information Systems</a> *	X	x	B.S.
<a href="#">Economics</a>	X	x	B.A.
<a href="#">Finance</a> *	X	x	B.S.
<a href="#">General Business</a>		x	
<a href="#">International Business</a>		x	
<a href="#">Management</a> *	X	x	B.S.
<a href="#">Marketing</a> *	X	x	B.S.
<a href="#">Real Estate</a>		x	
<b>School of Letters, Arts and Sciences</b>			
<a href="#">African American Studies</a>	X	x	B.A.
<a href="#">Anthropology</a>	X	x	B.A.
<a href="#">Art</a> *	X	x	B.F.A.
<a href="#">Behavioral Science</a>	X		B.A.
<a href="#">Biology</a>	X	x	B.A./B.S.
<a href="#">Chemistry</a>	X	x	B.A./B.S.
<a href="#">Chicano Studies</a>	X	x	B.A.
<a href="#">Computer Science</a>	X	x	B.S.
<a href="#">Criminalistics</a>		x	
<a href="#">English</a>	X	x	B.A.
<a href="#">Environmental Science</a> *	X		B.S.

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<a href="#">Environmental Studies</a>		x	
<a href="#">French</a>		x	
<a href="#">Geography</a>		x	
<a href="#">Geology</a>		x	
<a href="#">German</a>		x	
<a href="#">History</a>	X	x	B.A.
<a href="#">Interdisciplinary Legal Studies</a>		x	
<a href="#">Journalism</a>	X	x	B.A.
<a href="#">Language and Linguistics</a>		x	
<a href="#">Land Use</a>	X		B.A./B.S.
<a href="#">Mathematics</a>	X	x	B.A./B.S.
<a href="#">Meteorology</a>	X	x	B.S.
<a href="#">Modern Foreign Languages*</a>	X		B.A.
<a href="#">Music</a>	X	x	B.A./B.M.
<a href="#">Music Education*</a>	X		B.A.
<a href="#">Native American Studies</a>		x	
<a href="#">Philosophy</a>	X	x	B.A.
<a href="#">Physics</a>	X	x	B.A./B.S.
<a href="#">Political Science</a>	X	x	B.A.
<a href="#">Psychology</a>	X	x	B.A.
<a href="#">Public Administration</a>		x	
<a href="#">Public Relations</a>		x	
<a href="#">Social Work*</a>	X		B.S.
<a href="#">Sociology</a>	X	x	B.A.
<a href="#">Spanish</a>	X	x	B.A.

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<a href="#">Speech Communications</a>	X	x	B.A.
<a href="#">Theoretical Physics</a>		x	
<a href="#">Urban Studies</a>		x	
<a href="#">Women's Studies</a> (Institute for Women's Studies and Services)		x	
<b>School of Professional Studies</b>			
<a href="#">Airframe and Power Plant Mechanics</a>		x	
<a href="#">Aviation Management</a>	X	x	B.S.
<a href="#">Aviation Technology</a>	X		B.S.
<a href="#">Bilingual/Bicultural Education</a>		x	
<a href="#">Civil Engineering Technology</a> +	X		B.S.
<a href="#">Criminal Justice and Criminology</a>	X	x	B.S.
<a href="#">Early Childhood Education</a>		x	
<a href="#">Electrical Engineering Technology</a> +	X	x	B.S.
<a href="#">Gerontology</a>		x	
<a href="#">Health and Safety</a>		x	
<a href="#">Health Care Management (upper-division)</a>	X	x	B.S.
<a href="#">Holistic Health &amp; Wellness Education Multi-Minor</a>		x	
<a href="#">Hospitality, Meeting and Travel Administration</a> *	X		B.A.
<a href="#">Hotel Administration</a>		x	
<a href="#">Human Performance and Sport</a>	X	x	B.A.
<a href="#">Human Services</a> *	X	x	B.S.
<a href="#">Industrial Design</a> *	X		B.A.
<a href="#">Industrial and Technical Studies</a> *	X	x	B.S.

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<a href="#">Leisure Studies</a>	X	x	B.A.
<a href="#">Mechanical Engineering Technology</a> +	X	x	B.S.
<a href="#">Meeting Administration</a>		x	
<a href="#">Nursing (upper-division for RNs)*</a>	X		B.S.
<a href="#">Parent Education</a>		x	
<a href="#">Private Pilot</a>		x	
<a href="#">Reading</a>		x	
<a href="#">Restaurant Administration</a>		x	
<a href="#">Special Education/Gifted Education</a>		x	
<a href="#">Surveying and Mapping</a>	X	x	B.S.
<a href="#">Teacher Licensing: Early Childhood, Elementary and 12 Secondary Fields</a>			
<a href="#">Technical Communications</a>	X	x	B.A.
<a href="#">Travel Administration</a>		x	
<b>Other</b>			
<a href="#">Individualized Degree Program</a>	X	x	B.A./B.S.

+Concentration may replace the minor.

### Individualized Degree Program

The Individualized Degree Program offers students the opportunity to design a major or a minor to meet their specific educational goals when those goals cannot be met by majors and minors currently offered by MSCD. Each student works closely with an advisor in the Center for Individualized Learning and a faculty mentor to design a coherent program of study to meet the student's specific educational objectives. Each student's proposed program shall be approved by the department chair from which the majority of credit is drawn and by the dean of the appropriate School. All requirements for any bachelor's degree from the college apply. Either a bachelor of arts or a bachelor of science degree in Individualized Studies may be sought. Specific information and assistance is available from the Center for Individualized Learning at 303-556-8342, Central Classroom 106. See page 46 of this *Catalog* for more information.

### Accreditations/Approvals

The Metropolitan State College of Denver is accredited by the North Central Association of Colleges and Schools (30 North LaSalle St., Suite 2400, Chicago, IL 60602-2504, 1-800-



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621-7440). Individual academic programs within the following areas are accredited or approved by the following agencies:

<b>Program</b>	<b>Accreditation/Approval Agency</b>
Accounting**	Colorado State Board of Accountancy
Aerospace Science**	Council on Aviation Accreditation
Center for Addition Studies**	Colorado Department of Health
Chemistry**	American Chemical Society
Civil Engineering Technology*  Electrical Engineering Technology* Mechanical Engineering Technology*	Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. 111 Market Place, Suite 1050; Baltimore, MD 21202-4012 Phone: 410-347-7700 Fax: 410-625-2238 Web site: <a href="http://www.abet.org">www.abet.org</a>
Health Care Management**	Association of University Programs in Health Administration 730 11th Street, NW, 4th Floor Washington, D.C. 20001-4510 Phone: 202-638-1448 Fax: 202-638-3429 <a href="http://www.AUPHA.org">www.AUPHA.org</a> ; email: <a href="mailto:AUPHA@AUPHA.org">AUPHA@AUPHA.org</a>
Human Performance, Sport and Leisure Studies*	National Park Association/American Association for Leisure and Recreation
Human Services**	Council for Standards in Human Services Education
Music*	National Association of Schools of Music
Nursing*	National League for Nursing Accrediting Commission (NLNAC) 61 Broadway New York, New York 10006 212-363-5555 Ext. 153
Social Work*	Council on Social Work Education
Teacher Education*	National Council for Accreditation of Teacher Education; Colorado Department of Education

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\*Accreditation

\*\*Approval

### Certificates of Completion

Certificate programs provide opportunities to successfully complete a series of five to eight academic credit courses that focus on a particular area of career interest. Each certificate program is designed to stand alone or merge with your degree program major or minor. The certificate title and date of award will appear on your transcript. The certificate program is coordinated by the Office of Extended Education, 303-741-6394.

### Certificate Programs Available:

School of Business	School of Letters, Arts and Sciences	School of Professional Studies
Personal Financial Planning Real Estate Noncredit Financial Planning Noncredit International Trade Network Specialist in Information Systems Programmer/Analyst in Information Systems Database Analyst User Support Specialist	German Translation Basic Competency in German Basic Competency in French Basic Competency in Spanish Spanish Translation Program Public Administration Career and Personal Development Gerontology (Liberal Arts Orientation)	Gerontology (Professional Services Orientation) International Technical Writing Multimedia Production Corporate Video Production Technical Writing and Editing High Risk Youth Coaching Activities Assistant for Older Adults Recreation Assistant Aquatics Assistant Extended Day Activities Aide Conditioning Specialist Officiating Literacy Instructor

## Basic Degree Requirements

Students are responsible for full knowledge of the provisions and regulations pertaining to their program contained in this *Catalog* and elsewhere. The final responsibility for completing the requirements for a degree rests with the students, and it is recommended that they seek advice. Students should never assume that they have approval to deviate from a stated requirement without a properly signed statement to that effect.

### Requirements for All Bachelor's Degrees

To earn a bachelor of science, a bachelor of arts, or a bachelor of fine arts degree, a student must satisfy the following minimum requirements, plus any others stipulated for the degree for which a student is a candidate.

- Complete a minimum of 120 semester hours with a cumulative GPA of 2.0 or higher for all coursework.
- Complete at least 40 semester hours in upper-division courses (3000- and 4000-level courses).
- Complete all General Studies requirements listed for the degree and major.
- Complete a three-hour Multicultural course requirement.

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- Complete a three-hour Senior Experience course requirement. This course must be taken at MSCD.
- Complete one subject major consisting of not less than 30 semester hours. With certain exceptions (see the Degrees and Programs section on page 8 of this *Catalog*), complete a minor consisting of at least 18 semester hours. If a student completes two majors, the second major satisfies the minor requirement. Completing two concentrations under one major does not constitute the completion of two majors. Completion of two majors does not result in two degrees or diplomas. Coursework used to meet requirements for one major or minor may not be used to meet requirements for another major or minor. Students may not major and minor in the same discipline and are encouraged to obtain verification from an advisor if uncertainty exists.
- Complete all special requirements of a department and school.
- Achieve a cumulative GPA of 2.0 or higher in all MSCD courses that satisfy the requirements for the major, and for all MSCD courses that satisfy requirements for a minor. Students should check with an advisor for special GPA program requirements.
- File an Application for Graduation with the Office of the Registrar by the deadline stipulated in the *Class Schedule*.
- Academic residency (classroom credit) requirements:
  - Complete a minimum of 30 semester hours of classroom credit at MSCD, including the last 12 semester hours applicable to the degree.
  - Complete at least 8 upper-division (3000- and 4000-level courses) semester hours of the major and 3 upper-division semester hours of the minor at MSCD (classroom credit).
  - Students should be aware that University of Colorado at Denver pooled courses and courses taken interinstitutionally or at one of the other state colleges will not satisfy academic residence requirements at MSCD.

## Credit limitations:

- No more than 30 semester hours of omnibus-numbered courses may be applied toward graduation requirements.
- No more than 30 semester hours taken by extension and/or correspondence may be applied toward a bachelor's degree.
- No more than 4 semester hours in human performance and leisure activity or varsity sports courses will be counted toward a bachelor's degree for students who are not majoring in human performance, sport and leisure studies.
- No more than 7 semester hours in music ensemble courses will be counted toward a bachelor's degree for students who are not majoring in music.

## Requirements for a Second Degree

For an additional bachelor's degree, students must comply with the following:

- The first bachelor's degree must be recognized by MSCD.
- General Studies will be considered complete unless deficiencies exist according to the major department.
- Students must complete all requirements for a new major with a minimum of eight MSCD classroom upper-division semester hours in the major department.
- Students do not need to complete a minor unless specifically required by the major department for the contemplated degree.

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- Students must satisfy the Multicultural and Senior Experience course requirements for the second degree, if not fulfilled in the first degree.
- Students must spend at least two additional semesters in residence.
- A minimum of 30 semester hours of MSCD classroom credit after the awarding of the previous degree.
- Credit limitations for a bachelor's degree will continue to exist for the second degree.
- An Application for Graduation must be submitted to the Office of the Registrar by the deadline stipulated in the *Class Schedule*.

## **The General Studies Program**

### **Philosophy of the General Studies Program**

The Metropolitan State College of Denver seeks to prepare its graduates for a lifetime of learning, which, in our changing and complex society, requires focused expertise (such as that provided by a major area of study) and the ability to communicate with and learn from experts in other fields. Undergraduate education fosters the critical thinking necessary for the exploration of unfamiliar disciplines and for the synthesis of learning and exposes students to the richness and variety of the intellectual universe.

### **General Studies Information**

Students must use a single catalog to meet all degree requirements, including those in the General Studies, major and minor. Some changes in General Studies requirements have been made retroactive. As a consequence, many General Studies requirements and policies described in this *Catalog* may be followed by students using earlier catalogs.

### **General Studies Goals**

The General Studies Program is designed to help graduates achieve the following competencies:

MSCD students should be able to:

1. Write and speak with clarity;
2. Read and listen critically;
3. Draw conclusions from quantitative data;
4. Recognize faulty reasoning;
5. Organize ideas; and
6. Communicate with experts in other disciplines and learn from them.

MSCD students should:

7. Have an open attitude toward different approaches to problems
8. Have an informed awareness of the principle human achievements in history, arts and letters, society, and science, and
9. Be introduced to the basic methods, knowledge, problems or attitudes characteristic of a field.

### **Structure of the General Studies Program**

The General Studies Program is structured to foster the development of skills and to encourage students to use their mastery of skills to explore knowledge in a variety of disciplines. The General Studies Program provides two levels of experience:

#### **Level I– Skills**

Level I courses provide students with the basic skills of reading and listening critically,

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recognizing faulty reasoning, drawing conclusions from quantitative data, organizing ideas, and writing and speaking with clarity.

### Level II– Breadth of Knowledge

Level II courses introduce students to the basic methods, knowledge, problems or attitudes characteristic of a field, encourage in students an open attitude toward different approaches to problems, enable students to communicate with experts in other disciplines and learn from them, and cultivate in students an informed awareness of the principle achievements in history, arts and letters, social science, and science. In addition, in Level II courses students will continue to develop their skills in language and mathematics.

### Distribution and Credit Requirements

To complete their General Studies Program, students must take approved courses that fulfill the following distribution and credit requirements:

Category	Semester Hours
<b>Level I*</b>	
Composition	6
Mathematics	3
Communications	3
<b>Level II**</b>	
Historical	3
Arts and Letters	6
Social Sciences	6
Natural Sciences	6
Total***	33

*\*A transfer course or courses of at least 2 semester hours judged to be similar in skill development and content to a Level I course will satisfy an individual Level I course requirement. Equivalency will be determined by the department offering the Level I course.*

*\*\*One-hour deviations in the Level II categories may be allowed.*

*\*\*\*A student's completed General Studies Program must contain at least 33 semester hours.*

### Basic Rules:

- Only approved courses may be used to satisfy the General Studies requirements. A current listing of these courses is on page 49 of this *Catalog* and is indicated by course in the Course Descriptions section of this *Catalog*. *General College Requirements* brochures contain all approved general studies, multicultural and senior experience courses. The brochure is updated three times per year and is

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available from academic departments, the Academic Advising Center and Academic Affairs.

- General Studies courses need not be counted toward General Studies requirements. They may be taken as electives or to satisfy requirements in the major or degree program.
- Departments or programs may specify, by prefix and number, some General Studies courses in addition to courses required for the major or a professional credential.
- Courses taken using the pass-fail option cannot be counted for General Studies.

Note: More details on the General Studies requirements can be found on pages 49-60.

## **ADMISSIONS**

### **Admission Requirements**

The college uses two categories for classifying applicants: those who are younger than 20 and those who are 20 or older. Based on the college's modified open admission system, each category has its own admission requirements and procedures.

Students maintain the status of continuing student while absent from the college for less than one year; however, following two full semesters of absence, students should call the Office of Admissions to determine whether an updated application for re-admission will be required. For more information, see Admission of Previously Enrolled Students (page 18).

### **Application Deadline**

Applications complete with all required credentials will be accepted through the first week of classes. However, for the best possible selection of courses, students are advised to apply early.

### **Applicants Younger Than 20**

Applicants who are younger than 20 on September 15 for either the summer semester or the fall semester, or February 15 for the spring semester, will be classified as traditional applicants. They will be considered for admission using the requirements described below.

#### **Freshmen (first-time college students):**

- The college will admit students who are likely to successfully complete an academic program and who meet state requirements for the college as established by the Colorado Commission on Higher Education (CCHE).
- Applicants who do not meet the stated admission requirements will be considered on an individual basis that includes a careful review of all credentials, including letters of recommendation and a personal interview.
- Applicants who have not graduated from high school but have received the Colorado General Educational Development (GED) certificate or its equivalent will be accepted. ACT or SAT test results are not required with a GED.
- Applicants must request that the following information be mailed directly to the Office of Admissions from the high school or testing agency:
  - ACT or SAT test results
  - high school transcript with GPA and class rank
- This information may be submitted at the end of the sixth, seventh, or eighth semester of high school, but no later than four weeks before the expected term of enrollment. An official, final transcript with date of graduation is required no later than the fourth week of the term of enrollment. Students should request the

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transcript and verify that the high school transcript with date of graduation has been mailed by the high school and has been received by the Office of Admissions.

- Applicants who have submitted a complete application by the deadline and who have a 76 index (see chart on page 22) or higher, will be admitted. Students who have lower than a 76 index will be considered on an individual basis.

### **College Transfers:**

- Applicants with 30 or more transferable semester hours completed with at least a 2.0 cumulative GPA will be offered admission. Students with fewer than 30 hours will be considered on an individual basis, based on high school GPA, ACT or SAT scores and college work completed.
- Applicants who have less than a cumulative 2.0 grade point average from all colleges and universities attended will be considered on an individual basis that includes a careful review of all credentials, including letters of recommendation and a personal interview.
- Applicants must request that the following information be mailed directly to the Office of Admissions from the high school, testing agency and/or college or university:
  - ACT or SAT test results
  - high school transcript with GPA and class rank
  - transcript from each college or university attended or currently attending
- These credentials should be received at least four weeks prior to the first day of classes. All required credentials must be received before a final admission decision can be made.

## **Applicants 20 Years of Age or Older**

Applicants who are 20 or older on September 15 for either the summer semester or the fall semester, or February 15 for the spring semester, will be considered for admission using the requirements described below for a first-time college student or a college transfer student:

### **Freshmen (first-time college students):**

- Applicants will be admitted to the college upon indicating on the application for admission that they have graduated from high school or that they have received a General Educational Development (GED) certificate.
- By signing the application for admission, degree-seeking applicants are certifying that they will request either a high school transcript with date of graduation or GED test scores be sent to the Office of Admissions. Degree-seeking students will not be permitted to register for a second semester until this credential is received.
- The ACT or SAT is not required for admission but is highly recommended for advising purposes.

### **College Transfers:**

- Applicants will be admitted to the college, regardless of their cumulative college GPA, if they indicate on their application for admission that they have graduated from high school or that they have received a General Educational Development (GED) certificate.
- By signing the application for admission, degree-seeking applicants are certifying that they will request that either a high school transcript with date of graduation or GED test scores be sent directly to the Office of Admissions. In place of these credentials, college transcripts showing completion of 30 or more semester credit

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hours with grades of "C" or better will be accepted. College transfer students should request to have college transcripts sent directly to the Office of Admissions for transfer credit purposes. Degree-seeking applicants are required to have all college and university transcripts on file to receive a complete transfer evaluation.

- The ACT or SAT is not required for admission but is highly recommended for advising purposes.

## Application Instructions

Applications for admission are considered in the order in which they are received each semester. All credentials received by the college become the property of MSCD and will not be returned to the student. It is the responsibility of the applicant to notify the Office of Admissions of any changes to the application for admission prior to the first day of classes. If changes are not reported to the Office of Admissions, the registration process could be delayed for subsequent semesters. Failure to report academic changes may result in rejection, dismissal and/or loss of credit. International (visa) applicants should refer to the [Admission of International Students section](#).

To apply for admission:

- Applications are available from The Metropolitan State College of Denver, Office of Admissions, Campus Box 16, P.O. Box 173362, Denver, CO 80217-3362, 303-556-3058 or online at [www.mscd.edu](http://www.mscd.edu).
- A \$25 nonrefundable application fee (\$40 for international applicants) is required with the application for admission. Re-admit applicants are not required to submit an application fee.
- Submit a completed application and application fee directly to the Office of Admissions. The application and all required credentials (see Admission Requirements) should be received at least four weeks prior to the first day of classes.
- It is the student's responsibility to request that all required credentials be mailed directly from the issuing institution or agency to the Office of Admissions. Hand-carried documents will not be accepted.
- Although an applicant's record may be summarized on one transcript, an official transcript from each institution attended is required.
- The application for admission and all credentials received by the college will be kept on file for three semesters. After that time the file will no longer be maintained for students who do not enroll. Applicants wishing to attend MSCD must begin the admission process again.

## Admission of Previously Enrolled Students

Re-admit students are defined as individuals who have previously enrolled and have received a grade or grade notation at the college.

Re-admit students who have not been in attendance at MSCD for one or more years should:

- submit a completed application for admission; and check the re-admission box on the top of the application under Application Status. No application fee is required for re-admission.
- ensure that the application and any required credentials are received at least four weeks prior to the first day of classes of the semester for which admission is sought.
- submit transcripts from institutions attended since last attending MSCD.



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Students who are returning after nine years of absence from the college are required to resubmit all credentials.

### **Admission of Nondegree Students**

The nondegree student classification meets the needs of students 20 years of age or older who wish to take college courses but who do not currently intend to work toward a baccalaureate degree at MSCD. With the exception of high school students who have completed the approval process, nondegree students must have a high school diploma or its equivalent to qualify for admission.

Nondegree students may change to degree status by completing a Change of Status Form and submitting all required transcripts to the Office of Admissions.

### **Admission Notification**

Students are notified by mail as soon as decisions are made. Once admitted, students will be mailed instructions regarding course registration and other relevant information. No tuition deposit is required.

Students denied admission may appeal the decision by submitting a letter of appeal to the Director of Admissions along with new and compelling academic information, letters of recommendation and other supportive documentation.

### **Additional Admission Programs Summer Semester Only**

Applicants younger than 20 years of age who have graduated from high school or have received a General Educational Development (GED) certificate and are applying for the summer semester, and who do not wish to continue after the summer semester, may be admitted under a provisional status. These applicants are not required to submit admission credentials. Please check the appropriate box under the MSCD Plans section on the Application for Admission. Applicants for the summer semester who wish to continue for the fall or spring semester must meet stated admission requirements before the semester begins.

### **High School Concurrent Enrollment Programs (High School Students Only)**

#### **High School Student Education and Enrichment Program**

The Student Education and Enrichment (SEE) program is The Metropolitan State College of Denver's High School Concurrent Enrollment Program for college-ready students. SEE is designed to supplement a student's existing education through early participation in college-level classes. This advanced program should not be interpreted as an alternative to high school completion but is, instead, a cooperative college/high school effort to provide educational enrichment and early college attendance to qualified high school students. SEE students must meet the following criteria:

- Current enrollment in a Colorado high school as a junior or senior
- Able to benefit from specialized or accelerated classes
- Demonstrated ability to do college-level work

To apply for admission the student must, with approval from the appropriate high school authority, submit an admission application with the required \$25 application fee accompanied by the following documents:

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- Recommendation from a high school counselor or administrator describing how the student will benefit from early college attendance
- Written parental approval
- Official high school transcript

Upon receipt of these documents, the student's record is reviewed and the admission decision is made. However, if additional or supporting information is needed, the student may be required to have an interview with an admissions counselor. The admission decision will be based on the student's academic preparation and past performance, recommendation of the high school official, and the student's personal motivation and readiness for a traditional college experience.

## **Post-Secondary Enrollment Options Program**

The Post-Secondary Enrollment Options Program (PSEOP) is a sponsorship program enacted by state law in 1988 that provides juniors and seniors in high school the opportunity to take college classes for both high school and college credit. The program is intended to provide high school students with an optional learning environment.

This program allows a high school student to register for college classes, in most cases up to six semester credit hours (or two courses). These courses may be used for both high school and college credit. To participate in the program, students must first seek approval from their high school and school district. The district determines the number of credit hours the student may take and makes the financial arrangements. The student is responsible for payment of all tuition and fees by the college payment deadline before the semester begins. Specific deadlines and further information relative to this program and the application process may be obtained by calling the Office of Admissions at 303-556-3058.

## **Meritus at MSCD (Senior Program)**

Individuals 60 or older, who do not wish to earn credit, are invited to attend tuition-free classes of their choice on a space-available basis. The Meritus program is designed to give special encouragement and assistance to retired citizens to continue their personal educational growth in a stimulating and friendly campus setting. For information and to enroll call the Center for Individualized Learning at 303-556-8342, Central Classroom 106.

## **Admission of International Students**

All students who declare a country of citizenship other than the U.S. on their applications for admission must contact the Office of Admissions.

Applicants who are U.S. resident aliens (including refugees and political asylum) will be required to (1) submit a minimum of an official high school transcript/diploma that is determined equivalent to high school graduation in the U.S., and (2) complete an immigrant advising interview to ensure that their English language skills are sufficient for admission to the college.

Applicants who are on any type of temporary visas are required to submit the "International Student Application" which can be obtained from the Office of Admissions or online at our web site: [www.mscd.edu](http://www.mscd.edu).

Applicants on temporary visas are required to submit (1) a minimum of an official high school transcript/diploma that is determined equivalent to high school graduation in the U.S., (2) English language proficiency documentation, normally in the form of an acceptable TOEFL (Test of English as a Second Language) score, and (3) financial support documentation to cover the costs of attending the college for one academic year including

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living expenses (this is only required of potential students on F-1 and J-1 visas). Detailed information regarding all requirements and admission procedures of international students can be obtained from the Office of Admissions and on the International Student Application form.

### Transfer Credit Evaluation

A transfer credit evaluation is performed for admitted degree-seeking students after official transcripts are received by the Office of Admissions. Within approximately four weeks, students receive two copies of the transfer credit evaluation, one of which should be taken to the major and minor departments for advice on how credits might apply to their programs.

Transfer credits will be accepted under the following guidelines:

- Credit must have been earned at an institution of higher education holding full regional accreditation.
- Grades earned must be a "C-" or better. Courses with "D," "F" or similar grades will not be accepted in transfer. A summary of transfer credit from each institution will be indicated on the MSCD academic record. Neither transfer course grades nor previous grade point averages will be indicated or affect the MSCD grade point average.
- Course content must be similar to those courses offered at MSCD.
- A maximum of 64 semester hours from two-year institutions will be applied toward an MSCD degree. A maximum of 90 semester hours of credit will be applied toward an MSCD degree for acceptable work completed at a four-year institution or a combination of two- and four-year institutions.
- Transferable courses are accepted at the same level, i.e., lower-division or upper-division, at which they were offered at the previous institution. For example, all transferred community college courses will apply to the MSCD degree as lower-division credit.
- Students who have earned an A.A. or A.S. degree will receive junior standing at MSCD, provided all courses included in the degree carry a grade of "C-" or better and, based on the course-by-course evaluation, otherwise meet minimum MSCD transfer credit standards. Students may need to complete additional MSCD lower-division requirements.
- Applicants having completed the Colorado community college core curriculum, as certified on their community college transcript, are considered to have satisfied The Metropolitan State College of Denver's minimum General Studies requirements. However, additional specific lower-division courses may be required for certain degree programs.
- Once transfer credits are evaluated, the total number of these credits applicable to a degree will not be reduced unless the student repeats already-awarded transfer credit at MSCD, or interrupts MSCD enrollment for three or more consecutive semesters and readmits to the college under more restrictive transfer credit evaluation policies.
- In accordance with policies established by the Colorado Commission on Higher Education to address student disputes regarding student transfer between Colorado public institutions, MSCD has instituted procedures for resolving transfer credit disputes. These procedures are available from Transfer Services in the Office of Admissions.

Questions pertaining to transfer credit evaluation should be referred to the Office of Transfer Services,  
Central Classroom Building, room 103, 303-556-3774.

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### **Preparatory Course Credit Policy**

No preparatory courses are applicable toward an MSCD degree after spring 1993. For details, please see an advisor in the Academic Advising Center.

### **Transfer Services**

The Office of Transfer Services offers assistance to students transferring from other institutions. Specific services include preliminary and/or official transcript evaluation, educational planning, transition to academic departments and resolution of transfer problems. Transfer counselors are available by appointments and for walk-ins; evening appointments are available. Transfer Services works closely with Transcript Evaluation to provide students information about their transfer credits and how those credits may be applied. Questions pertaining to transfer credit evaluation should be referred to the Office of Transfer Services, Central Classroom Building, Room 103, 303-556-3774.

### **Freshman Admission Eligibility Index**

How to read this chart:

Find your SAT and ACT score on the leftphand side of the cart and your high school grade point average on the top of the chart. From these two numbers, locate the number that corresponds. This is your index score.

## **Enrollment**

### **New Student Orientation**

New Student Orientation offers a mandatory orientation program for all first-time college students and transfer students under 20. Transfer students 20 and older, as well as parents and non-degree seeking students, are strongly encouraged to attend orientation sessions. The year-round sessions cater to the specific needs of first-time college students, transfer students, women, and parents of traditional age freshmen. Sessions are scheduled on different days and at various times to accommodate the needs of our diverse commuter populations. Sessions are also offered at the North and South campuses to provide further flexibility. Orientation sessions cover a variety of topics including degree planning, academic concerns, students' rights and responsibilities, student support programs, commuter issues and an opportunity to ask and discuss individual questions. Students are provided with a packet of valuable information which includes a catalog, student handbook, general requirements brochure and critical information from many of the student support programs and services. Orientation is invaluable in laying a solid foundation for students' future academic success. Approximately 4,000 students and parents are served by this program each year. For further information see the *Class Schedule* or call 303-556-6931.

### **Reading, Writing and Mathematics Placement Examinations**

All first-time college students are required to take a series of three exams before registering for their first-semester classes. The exams measure college entry-level skills in reading, writing and mathematics, and the scores are used to help advisors and students select appropriate courses. For additional information call 303-556-3677.

### **Academic Advising**

At MSCD students are provided multiple sources of academic advising support. Continuing students with declared majors receive advising assistance from their academic departments. New students and students without declared majors receive advising support from the Academic Advising Center, CN 104. Services available to students in the Center include the

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following: assistance with course selection, scheduling and registration; help with long-term degree planning; identification of degree enhancement strategies; and ongoing developmental advising, including assistance with the major-minor selection process, adjustment to college, etc. For additional information call 303-556-3680.

## **REGISTRATION**

All continuing students in good standing and all accepted applicants at the college are eligible to register each semester.

Students are responsible for ensuring that there is a correct and up-to-date address and phone number on file with the college. Address changes may be made with the Registrar's Office, through MSCD's Web site, ([www.mscd.edu](http://www.mscd.edu)), by writing or faxing (303-556-3999) the address and phone number change to the Registrar's Office.

A student may register for classes in several ways. Information on the registration procedure and registration dates is published in the *Class Schedule*, which is mailed to all continuing and new students.

### **Concurrent Enrollment**

Students who find it necessary to register at MSCD and another college at the same time should check with MSCD Transfer Services (CN 103) concerning the acceptance and application of transfer credits.

### **Interinstitutional Registration**

Students enrolled at MSCD may register for courses at Arapahoe Community College, Community College of Denver and Red Rocks Community College. Courses taken at these institutions in no way alter existing MSCD degree requirements, but may apply toward degree requirements subject to specific approval by MSCD. Students should be aware that courses taken interinstitutionally will be counted as part of the 64 semester hours from community colleges applicable to an MSCD degree. Interinstitutional credits will not satisfy academic residence requirements at MSCD. In the event a conflict arises between the policies/procedures of MSCD and one of the colleges listed above, the most restrictive policy prevails. Students are advised to confer with department chairs and/or coordinators of academic advising before registering interinstitutionally.

### **Consortium Registration**

Adams State College, Mesa State College and Western State College together with Metropolitan State College of Denver form a system of state colleges. Each member institution can provide any student in good standing with the materials needed to enroll temporarily in any other member institution without incurring additional matriculation costs. Information concerning tuition is available at the host institution. The process of enrolling as a system student should begin at least one month prior to the beginning of the registration period at the host institution. Information concerning current procedures for enrolling in courses at these other institutions is available from the Registrar's Office.

### **Enrollment Status**

The enrollment status of a student in the interinstitutional registration or consortium registration programs is determined by the student's status at the home institution (institution where the student is seeking a degree). Students should ascertain before enrolling at an institution that desired courses will satisfy degree requirements at the home institution.

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### **Course Audit Policy**

Students may audit a class with the permission of the instructor and if seating is available. Academic credit is not awarded for an audited course. The cost for auditing a course is based on regular tuition as published in the current *Class Schedule*. Audit approval forms are available in deans' and academic department offices.

### **Changes in Registration**

Enrolled students may adjust schedules by dropping and/or adding classes. See the current *Class Schedule* for complete information concerning dropping and/or adding classes and the tuition and fee refund schedule.

Students who reduce their course load after the 12th day of classes and before the beginning of the fifth week will receive an "NC" notation for each course they have dropped. A NC/Withdrawal Form must be submitted by the deadline to the Registrar's Office.

Students reducing their course load between the beginning of the fifth and the end of the tenth week of classes during fall and spring semesters may receive an "NC" notation for each course, provided faculty approval is granted. Additional restrictions regarding assigning the "NC" notation may be set by each school, department and/or faculty member for the period between the beginning of the fifth and the end of the tenth week of the semester (or proportional time frame). Students are advised to seek faculty signatures well before the deadline. A NC/Withdrawal Form must be submitted by the deadline to the Registrar's Office. See the sections on grades, notations, course load and class attendance in this *Catalog*.

Proportional time frames are applied for part-of-term courses, workshops and summer terms. Procedures for adding or dropping a part-of-term course after the course has begun are described in the current *Class Schedule*.

## **TUITION AND FEES**

### **Tuition Classification**

A student is classified as an in-state or out-of-state student for tuition purposes at the time of admission. This classification is based upon information supplied by the student on the application for admission and is made in accordance with the Colorado Tuition Classification Law, CRS S23-7-101 et seq. (1973), as amended. Once determined, a student's tuition classification status remains unchanged unless satisfactory evidence that a change should be made is presented. A Petition for In-State Tuition Classification Form and the evidence requested should be submitted to the Registrar's Office if a student believes she or he is entitled to in-state status.

The tuition classification statute requires that in order to qualify for in-state status, a student (or the parents or legal guardian of the student in the case of students under 23 years of age who are not emancipated) must have been domiciled in Colorado for one year or more immediately preceding the first day of the semester for which such classification is sought.

Domicile for tuition purposes requires two inseparable elements: (1) a permanent place of habitation in Colorado and (2) intent to remain in Colorado with no intent to be domiciled elsewhere. Some examples of connections with the state that provide objective evidence of intent are: (1) payment of Colorado state income tax as a Colorado resident, (2) permanent employment in Colorado, (3) ownership of residential real property in Colorado, (4)

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compliance with laws imposing a mandatory duty on any domiciliary of the state, such as the drivers' license law and the vehicle registration law and (5) registration to vote. Other factors unique to the individual can also be used to demonstrate the requisite intent.

Any questions regarding the tuition classification law should be directed to an admissions officer at the college. In order to qualify for in-state status for a particular semester, the student must prove that domicile began not later than one year prior to the first day of classes for that semester. The dates for qualifying and for submitting petitions are published in the *Class Schedule* each semester.

## Tuition and College Service Fees

The Board of Trustees of The State Colleges in Colorado, the governing board of the college, reserves the right to alter any or all tuition and fees for any semester without notice.

Tuition and college service fees are determined by the trustees shortly before the beginning of each academic year. Information regarding tuition and fees is published in the current *Class Schedule*. Tuition and fees are payable at the time of registration.

## Standard Fees

An application fee is required of all applicants for admission to the college. This fee is nonrefundable and will not be applied to tuition.

Application fee	\$25
International student application fee	\$40
Matriculation fee	\$25
<b>Special fees</b>	
Returned check charge	\$17

## Tuition Adjustments

Please see the *Class Schedule* for the current semester.

## Student Health Insurance

All students taking 10 credit hours or more in the fall or spring semester or eight credit hours or more in the summer semester are required to participate in the college-sponsored student health insurance coverage unless proof can be provided that a student has comparable and valid outside health insurance coverage.\*

Full-time students are automatically billed for student health insurance on their tuition bill under the insurance heading. Students who have outside insurance coverage are responsible for completing a waiver form by the deadline indicated in each semester's *Class Schedule* in order to have the insurance charge removed from their tuition bill (deadline changes from semester to semester). **Waiver forms will not be accepted after the deadline listed in each semester's *Class Schedule*.** It is the student's responsibility to become familiar with the college's policies and to adhere to the deadlines listed. No refunds will occur after the waiver deadline. Waiver forms and insurance brochures are available at either the Student Health Insurance Office located in the Health Center at Auraria (PL 150)

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or the Student Accounts Office (CN 110). Waiver forms are also printed in each **Class Schedule** and available from the SHC website at <http://www.msced.edu/student/resources/health/>.

Health insurance waiver forms are valid for only one year. **Continuing students must complete a waiver form ANNUALLY prior to each fall semester.** Students with a break in academic enrollment, and those who begin classes in the spring or summer, must complete a waiver form by the appropriate deadline (listed in the *Class Schedule*) for the semester they enroll and every fall semester thereafter.

Waiver form information will be mailed to the home address of all full-time students prior to the semester of enrollment.

Students who request a waiver form to provide proof of valid outside health insurance must:

- Complete the student health insurance waiver form.
- Attach a copy of a valid health insurance card to the waiver form. Note: copy both the front and back side of your insurance card on to a separate sheet of paper.
- Submit the waiver form by the deadline indicated in each semester's *Class Schedule* (deadline changes from semester to semester).

All covered services at the Health Center at Auraria are paid at 100 percent with no payment at the time of service, no deductible and no need for claim forms. The pre-existing condition exclusion clause is waived for services performed. Please see the current Student Health Insurance Brochure for a summary of the plan benefits, requirements and exclusions. Brochures can be obtained at the Health Center at Auraria.

Dependents of a student participating in the student health insurance program are also eligible for optional insurance coverage. Adult dependents (18 and up) may use the Health Center at Auraria (SHC) after they pay the semesterly SHC fee. Dependents 17 years old or younger are not eligible for services at the SHC. Please call the insurance office for information regarding pediatric care. In addition, students enrolled during the spring semester are given the option of purchasing summer health insurance without attending classes, provided that payment is received by the deadline listed in the summer *Class Schedule*. Graduating students have the option to purchase from one to six months of continuing coverage. Students with questions regarding student health insurance should contact the Student Insurance Office.

*\*Individual insurance plans that are not required to meet state and federal benefit mandates are not considered comparable and consequently will not be considered proof of comparable coverage. Effective August 1, 1998, the "Colorado Resident Discount Program" will NOT be accepted as proof of comparable outside health insurance coverage for waiver purposes. This special program is not considered health insurance and was not designed by the state legislature for this purpose.*

## Student Health Insurance Voluntary Program for Part-Time Students

Based on the mandatory insurance requirement which the college has adopted, the Student Insurance Carrier has permitted the college to offer the following Voluntary Health Insurance Program to part-time students. This program is exclusively for part-time students taking 6-9 credit hours in the fall and/or spring semester(s) and 6-7 credit hours during the summer semester. Students taking more or less credit hours than indicated above are NOT eligible for this voluntary program.



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The Voluntary Plan has the same deadlines (as listed in the *Class Schedule*), plan design, cost and benefit levels as does the mandatory insurance plan referenced in the previous section. Part-time students interested in the voluntary option should contact the Student Insurance Office at 303-556-3873 for application details.

### Student Dental Insurance Voluntary Program for all Students

Voluntary Dental Insurance is available to all students taking one credit hour or more. Information and application forms can be obtained at the Student Insurance Office in the Health Center at Auraria (PL 150).

## **FINANCIAL AID**

The MSCD financial aid program provides assistance and advice to students who would be unable to pursue their education at the college without such help. Scholarships, grants, loans and part-time employment are available singly or in various combinations to meet the difference between what the student and the student's family could reasonably be expected to provide and the expected cost of attending MSCD.

### Estimated Expenses

The 2001-2002 academic year expenses will be as follows for a student not living with parents:

	<b>Resident</b>	<b>Nonresident</b>
Tuition and Fees	\$3,025	\$8,865
Room and Board	7,780	7,780
Books and Supplies	1,100	1,100
Transportation	765	765
Miscellaneous	975	975
	\$13,645	\$19,485

Tuition and fees are set by The State Colleges in Colorado and are subject to change without notice. All students are placed on a single-person budget. Additional allowances may be made for students with day-care costs for dependent children and for expenses related to disabilities not paid by another agency (P.L. 99-498).

### Eligibility and Need

To qualify for financial aid, a student must be a U.S. citizen or eligible noncitizen; be registered with Selective Service (if required); have financial need; be degree-, licensure-, or certificate-seeking; be making satisfactory academic progress; and not be in default on a federal education loan or owe a repayment on a federal grant.

### Application Procedures

Students must complete the Free Application for Federal Student Aid (FAFSA) each year to determine financial aid eligibility. Entering college freshmen should obtain application forms

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from their high schools or from MSCD's Office of Financial Aid. Most students who completed a 2001-02 FAFSA or Renewal FAFSA will receive a PIN (personal identification number) from the Federal Processor between November, 2001 and January, 2002. This PIN is used for completing the 2002-03 Renewal FAFSA online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). For quicker processing, we strongly recommend that returning, transferring and entering students complete their FAFSA or Renewal FAFSA on the Web at: [www.fafsa.ed.gov](http://www.fafsa.ed.gov).

Students should complete and submit the FAFSA or Renewal FAFSA to the federal processor as early as possible (after January 1st), preferable no later than mid-February, and submit all requested documents to the MSCD Office of Financial Aid by April 13th.

Detailed information concerning application procedures is provided in the *Financial Aid Handbook and Scholarship Guide* available in the MSCD Office of Financial Aid.

## Financial Aid Programs

The amount of funds made available to students depends on the maximum award allowed by regulation of each program, the student's established financial need, duration of the student's enrollment, and funds allocated to the college by the state and federal governments.

### Grants

Grants are gift money from the federal or state government and do not have to be repaid.

**Federal Pell Grants** are federal funds and awarded to undergraduate students who have not yet received a bachelor's degree and who are U.S. citizens or eligible non-citizens. The amount of the award is based on each student's financial eligibility and the number of hours for which the student is enrolled. The amount of Federal Pell grant awards for the 2001-02 academic year will range from \$400 to \$3,750 for those students who qualify. Full-time, half-time, or less than half-time students may qualify for a Federal Pell Grant.

**Federal Supplemental Educational Opportunity Grants (FSEOG)** are federal funds awarded to undergraduate students who have not yet received a bachelor's degree and are U.S. citizens or eligible non-citizens. This grant is awarded to students who demonstrate exceptional need. The amount of FSEOG awards range from \$100 to \$600 per fall and spring semesters.

**Colorado State Grants (CSG)** are state funds awarded to Colorado residents with demonstrated financial need. Eligible students have no prior bachelor's degree, are U.S. citizens or eligible non-citizens, and are enrolled full- or part-time (at least six credit hours for the fall and spring semesters) at MSCD. The amount of the CSG award ranges from \$50 to \$600 per fall and spring semesters.

**Colorado Leveraging Educational Assistance program (CLEAP)** are a combination of federal and state funds awarded by the same criteria as CSG.

### Scholarships

Students must be enrolled at least half-time, be degree-, certificate- or licensure-seeking, be making satisfactory academic progress, and not be in default on a federal education loan or owe a repayment on a federal grant to receive a scholarship.

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**Presidential Scholarships:** These scholarships include four-year scholarships for entering high school students and two-year scholarships for transfer students. This scholarship covers up to the cost of tuition and mandatory fees per semester for up to 15 credits.

**Colorado Scholars Awards:** Scholarships of up to \$500 per semester, not exceeding the cost of resident tuition and mandatory fees per academic year, are available through the academic departments. Recipients must be Colorado residents. Interested students should contact their departments for applications.

**Athletic Scholarships:** MSCD has a limited number of athletic scholarships. Applications and additional information are available from the MSCD Intercollegiate Athletics Office.

**Private Scholarships:** Students should refer to the MSCD *Financial Aid Handbook and Scholarship Guide* for information regarding scholarships and the free online scholarship search.

Receipt of a scholarship may affect a student's financial aid award because students receiving federal and/or state aid are limited in the maximum amount of aid which can be received. A student whose full need has been met by other types of financial aid prior to receipt of a scholarship will have that aid reduced by the amount of the scholarship. If the student's full eligibility has not been met, the scholarship will be allowed to satisfy the unmet need. Each student's situation is treated individually. All scholarships are based on the student's continued eligibility and available funding.

## Loans

**Federal Perkins Loans** are long-term federal loans that are awarded based on the student's need and MSCD's available funds. Federal Perkins Loan can range from \$100 to \$1,500 per semester. Repayment of the loan begins nine months after the student graduates or ceases to be enrolled in at least six credit hours each semester. The interest rate is 5 percent and interest begins to accrue at repayment. All first-time borrowers at MSCD are required to attend a Perkins Loan Entrance Interview before loan funds can be released to them.

**Federal Family Education Loans (FFEL)** include Federal Stafford Loans, unsubsidized Federal Stafford Loans, and Federal PLUS Loans, which help students and/or their parents to borrow funds to help meet educational expenses. To borrow these funds, students and/or their parents must complete and submit, in addition to the FAFSA, a separate lender application to the MSCD Office of Financial Aid. Loan applications may be obtained from the Office of Financial Aid or the lender of the student's choice. Students must be enrolled at least six credit hours each semester and be degree-, certificate- or licensure-seeking. Interest rates vary depending on the type of loan and the date the student borrows the first Federal Family Education Loan. For further information on interest rates, check with the MSCD Office of Financial Aid or the lender. First time borrowers at MSCD are required to attend a Loan Entrance Interview before loans funds can be released to them.

**Federal Stafford Loans:** Eligibility for the Federal Stafford Loan is based on the student's need as determined by the MSCD Office of Financial Aid. The annual loan limits are \$2,625 for freshmen, \$3,500 for sophomores and \$5,500 for all other undergraduates. Interest does not begin to accrue until six months after the student graduates or ceases to be enrolled in school at least half-time (six credit hours per semester).

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**Unsubsidized Federal Stafford Loans:** These loans have many of the same terms and conditions as the Federal Stafford Loan. The main difference is that the students are responsible for the interest that accrues while they are in school and during the six-month grace period after they graduate or cease to be enrolled in at least six credit hours. Students who do not qualify for a Federal Stafford Loan, based on need, may qualify for the unsubsidized Federal Stafford Loan. Contact the MSCD Office of Financial Aid concerning annual loan limits.

**Federal PLUS Loans:** These loans are available to parents of dependent students. Applications are available from the MSCD Office of Financial Aid or from lenders that participate in the program. Applications must first be submitted to the Office of Financial Aid for processing. At MSCD, parents of dependent students may borrow up to the cost of education minus the amount of financial aid received by the student from other sources each year.

Please refer to the MSCD *Financial Aid Handbook and Scholarship Guide* for more detailed information regarding loans.

## College Work-Study

The State of Colorado, the federal government and MSCD provide part-time employment programs for students. The maximum work-study award is \$2,500 per semester. The maximum hours a student may work is 30 hours per week while classes are in session and 40 hours per week between semesters. Students must be enrolled in at least six credit hours per semester to receive a work-study award. The majority of all work-study awards are need-based, however, there are a limited number of positions offered directly through various departments/offices on campus that are no-need awards.

## The Financial Aid Package

Once student eligibility is determined, an aid package is developed based on the availability of funds and the eligibility of the applicant. To facilitate financial aid packaging requirements, applicants must obtain all requested information and forms from designated sources and submit them to the MSCD Office of Financial Aid before the established deadline.

## Award Notification

After the Office of Financial Aid has determined the type and amount of aid for which a student qualifies (aid package), the student is mailed an Award Notification. The Award Notification and enclosed information stipulate the conditions of each award.

## Disbursement Procedures:

- Awards are based on full-time enrollment. If a student is enrolled for less than 12 credit hours each semester, the award may be reduced/prorated. The final award adjustment occurs on census date (about the 12th day of school each fall and spring semester and the 8th day of the summer semester).
- Grants, Scholarships and Student Loans: All financial aid awards (with the exception of out-of-state loan checks, consortium checks and some scholarship funds) are disbursed into the student's account. The Business Office deducts any outstanding balance owed, including current tuition and fees, and issues a check for the remaining funds. This check is either mailed to the student or the student can pick it up at the Cashier's Office. This check can be used to purchase books and pay other educationally related expenses.

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- Parent Loans: Federal PLUS checks are mailed from lenders to MSCD's Office of Financial Aid. Eligibility is verified and then the check is mailed to the parent borrower.
- Work Study: Work-study earnings are paid bi-weekly and are treated as wages earned. Outstanding balances owed to MSCD are not deducted from these earnings; however, students are strongly advised to pay any outstanding balance as soon as a work-study check is received.

Please refer to the MSCD [Financial Aid Guide and Scholarship Application](#) for information regarding proration of aid disbursements.

### Repayment Policy

Students who receive financial aid and withdraw from MSCD prior to completion of a term may be required to repay a portion of financial aid and scholarships. All required financial aid repayments must be made to MSCD before the end of the current academic year or before additional Title IV funds can be disbursed to the student, whichever occurs first. Repayment is made to the MSCD Business Office. Please refer to the *Class Schedule* for more specific information.

### Financial Aid as a Form of Payment

Please refer to the current [Class Schedule](#) for information regarding payment of tuition and fees with awarded aid.

## **SERVICES AND PROGRAMS FOR STUDENTS**

### Academic Advising

At MSCD students are provided multiple sources of academic advising support. Continuing students with declared majors receive advising assistance from their academic departments. New students and students without declared majors receive advising support from the Academic Advising Center, CN 104. Services available to students in the Center include the following: assistance with course selection, scheduling and registration; help with long-term degree planning; identification of degree enhancement strategies; and ongoing developmental advising, including assistance with the major-minor selection process, adjustment to college, etc. For additional information call 303-556-3680.

### Alumni Relations

Located in the Administration Building, the Office of Alumni Relations works with the College, the Alumni Association and the MSCD Foundation, Inc., to provide services and support to all alumni and students. Services include: career development, health insurance programs, discount internet, MSCD credit card, alumni directory and numerous volunteer/mentoring opportunities.

The Alumni Association, Inc., is committed to advancing the College's welfare by creating and maintaining a spirit of fellowship and goodwill among all alumni and to encourage alumni involvement with the College. The MSCD Alumni Association's mission is to work in concert with the College, the Foundation and others to:

- Elevate and enhance the reputation of the College
- Inspire alumni to leverage their pride in their MSCD experience
- Establish mentoring opportunities to help others soar and expand their horizons.

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Inquire about participation with the Alumni Association, the ASK (Alumni Sharing Knowledge) Real-World Career Counseling Program, the ADVANCE Admissions Recruitment Program or other programs to connect with the College and MSCD alumni. If you are interested in linking up with a Metropolitan State College of Denver alumnus/a in your degree area, or are interested in one of the Alumni Relations programs, contact the Alumni Relations Office at 303-556-8320 or visit our web site at: [www.mscd.edu/alumni.htm](http://www.mscd.edu/alumni.htm).

### **Auraria Campus Police and Security**

The Campus Police and Security Division is fully certified and authorized to provide police services to the Auraria campus and is proud to maintain its reputation as one of the safest in the state.

In addition to a police chief and 20 full time officers, the Campus Police and Security Division employs state certified security officers and communication personnel. Officers patrol the campus 24 hours per day, seven days per week, on foot, bicycles or golf carts, and in patrol cars.

The Campus Police and Security Division also provides additional services to the campus community such as vehicle unlocks, crime prevention programs, emergency responses, and environmental health and safety.

The Campus Police and Security Division is located at 1201 Fifth Street. Routine calls - 303-556-3271; EMERGENCY CALLS - 911 (or use one of the many emergency phones located around campus).

### **Auraria Child Care Center**

The center provides high quality early childhood care and education to the children of students, staff and faculty. A discovery, child-oriented approach is provided by a professional teaching staff to children ages 12 months to 6 years. Preregistration is required. Please call 303-556-3188 for information.

### **Auraria Parking and Transportation Services**

#### **Parking Services Department**

**Daily Fee Parking:** (in-and-out privileges in Lot E only): daily fees range from \$1.50 to \$10.00. Several lots are unattended and require purchasing a receipt from the vending machine. Make sure the parking receipt is placed face-up on the driver's side of the dashboard. Receipts are valid only on the day and in the lot where purchased and are not transferable from one vehicle to another. For easy entrance/exit to the Parking and Transportation Centre and lot D, a reusable debit card can be purchased for \$1.00 and a cash value can be encoded on its magnetic strip. Debit cards are available on the second floor next to the ATM machine in the Tivoli Student Union and on the first floor of the Parking and Transportation Centre.

**Permit Parking:** Parking permits are available on a semester basis. They go on sale on the first day of registration. Contact the Parking Office at 303-556-2000 for more information.

**Motorist Assistance Program:** Personnel will help jump-start dead batteries and assist in changing tires. Jumper cables, bumper jacks, tire tools and gasoline cans are also available at no cost to campus parkers. Call 303-556-2000 for assistance. The Parking Services Department is located at 777 Lawrence Way (first floor of the parking garage). Hours are from 7:30 a.m. to 5:30 p.m. Monday-Friday.

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**Handivan Services:** The wheelchair-accessible handivan provides free on-campus transportation for students, faculty and staff from 7:00 a.m. to 10:00 p.m., Monday - Thursday and from 7:00 a.m. to 6:00 p.m. on Friday.

**Nightrider:** The Nightrider is a free security escort service for any campus parking lot. Service is available from dusk to 10:00 p.m., Monday-Thursday during fall and spring semesters.

### **Career Services**

The Office of Career Services helps students and alumni in developing, evaluating and implementing career plans. Specific services include Career Assessment Workshops; Employer Forums/Employer Workshops addressing resume writing, job search strategies and interviewing skills; and Career Connections, which offers candidates and employers a high tech resource to connect MSCD seniors and alumni candidates to entry level employment.

Career fairs and seminars are sponsored jointly during the fall and spring terms with employers, student groups, faculty and a consortia of colleges and universities.

The Career Library houses print and electronic resources including directories and employer profiles, job vacancies, salary surveys, job profiles and graduate school information. The Colorado Career Information System (COCIS) offers occupational information based on employment characteristics of Colorado and the nation. A touch screen computer kiosk provides a direct link to federal job opportunities as identified by the United States Department of Personnel Management.

For assistance, call 303-556-3664 or access the Website <http://www.mscd.edu/~career>

### **Center for the Visual Arts**

Located off campus in the heart of LoDo, the Center for the Visual Arts was created in 1990 by Metro to serve the college and the Rocky Mountain region. Open all year, the Center organizes and hosts exhibitions of culturally diverse artists of national and international significance, which would otherwise be unavailable to the college community and state populace. Past exhibitions have included works by Picasso, Ansel Adams, Romare Bearden and the diverse art of Haiti, West Africa, Australia and Japan. The Center hosts Metro's Senior Thesis exhibition featuring the works of the college's most outstanding art students every year and a biannual exhibition of the Metro art faculty.

Education and community outreach is an important facet of the Center with more than 6,000 students and 25,000 members of the general public visiting the Center each year. Visitors can take advantage of the many lectures, tours and workshops available in conjunction with the exhibitions. An outreach program, providing art workshops and activities for Denver's at-risk youth is another element of the Center's education program and commitment to community involvement. Work-study positions, internships and volunteer opportunities are only a few ways that Metro students can become involved at the Center. The Metropolitan State College of Denver Center for the Visual Arts is located at 1734 Wazee Street, Denver, CO 80202; Telephone: 303-294-5207, Fax: 303-294-5210; [www.mscd.edu/news/cva](http://www.mscd.edu/news/cva).

### **Child Development Center**

The Child Development Center provides exemplary, on-campus children's programs. During the fall and spring semesters, the center offers pre-school programs; in the summer it provides a Summer Enrichment Program for elementary age children. Available to the

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Auraria campus and to the Denver community, these programs are part of the college's teacher education program.

The classrooms are under the direction of master teachers who are trained and experienced in either early childhood or elementary education. The master teachers plan an age-appropriate program to provide quality learning experiences that meet the developmental needs of the children. MSCD teacher education students also work in the classroom providing a high adult/child ratio with opportunities for small groups and individual attention.

The preschool program is accredited by the National Academy for Early Childhood Education. There are two preschool classes available: 8:30-11:15 a.m. for children 2 1/2 to 4 years old and 12:30-3:15 p.m. for children 4 to 6 years old. There is also child care available before and after each preschool class: 7:30-8:30 a.m., 11:15-12:30 p.m., and 3:15-6:00 p.m.

The Summer Enrichment Program is academic in content, but recognizes children's needs for fun and different learning experiences in summer. There are two classrooms: one for children entering first or second grade in the fall and one for children entering third or fourth grade in the fall. There is a Day Program from 8:30 a.m. to 4:15 p.m. and an Extended Program from 7 to 8:30 a.m. and from 4:15 to 6 p.m. Call 303-556-2759 for more information.

### **Combined Computer Access Center**

The Combined Computer Access Center (CCAC) assists and trains students with disabilities to minimize the impact of their disabilities, while accessing the computer keyboard and monitor. The goal of the CCAC is to help students with disabilities achieve academic goals, attain vocational goals and improve employability through the use of adaptive technology. The CCAC serves students with all types of disabilities, including, but not limited to: blindness, low vision, hearing impairments, learning disabilities, neurological disabilities and orthopedic disabilities. The Combined Computer Access Center is located in the Auraria Library, room 115, 303-556-6252. (*See Disability Support Services.*)

### **Counseling Center**

The Counseling Center staff provides services to currently enrolled Metropolitan State College students at no additional charge beyond student fees. The staff is ethnically and culturally diverse. Services include personal therapy, support groups, stress management, and crisis intervention. The Center also coordinates an active Peer Education Program. Students may request an appointment for their first visit in advance. Follow-up appointments are made to accommodate class schedules. The staff also provides consultations to faculty, staff, and student groups upon request. Faculty are encouraged to invite Counseling Center staff to address mental health issues in their classes. The Center is open from 8:00 a.m. to 5:00 p.m. For additional information call 303-556-3132.

### **Disability Support Services**

Advocacy and support services are provided through the Office of Disability Support Services located in room 177 of the Arts Building. Services include but are not limited to: priority registration, assistance in identifying notetakers, alternative testing, access to assistive technology, referrals to outside service agencies, sign language interpreters and assistance with any general needs or concerns. Students with special needs are encouraged to utilize these services. For assistance or information, please call 303- 556-8387 (voice) or 303-556-8484 (TDD). (*See Combined Computer Access Center.*)



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### **Extended Campus**

Degree programs and fully accredited courses, as well as orientation and assessment testing, are offered at two convenient locations in the Denver metro area: Metro South, 5660 Greenwood Plaza Boulevard, Englewood, 303-721-1313 and Metro North, 11990 Grant Street, Northglenn, 303-450-5111. Extended Campus offers evening, weekend and accelerated classes. In addition, it offers a variety of formats including telecourses, online courses and correspondence courses. Extended Campus schedules are available each semester.

### **Gay, Lesbian, Bisexual, Trans Student Services at Auraria**

Gay, Lesbian, Bisexual, Trans (GLBT) Student Services is open to all Auraria students as a resource for exploring sexual orientation issues. This program offers a variety of support, education and advocacy services for the entire campus community:

- support for members of the campus community who may have questions about their own sexual orientation or that of a friend or family member
- advocacy for students experiencing discrimination or harassment based on a real or perceived gay, lesbian, bisexual or trans identity
- speakers for events, workshops and classes on various aspects of sexual orientation
- training programs and workshops about combatting homophobia and working with the gay, lesbian, bisexual and transgendered communities more effectively
- library of books, videos and resource files available for research and leisure
- events such as Gay, Lesbian, Bisexual, Trans Awareness Month and other forums providing information and dialogue about gay, lesbian, bisexual and trans issues

The GLBT Student Services office is located in the Tivoli Student Union, room 311, and is staffed by a director with the support of student employees and volunteers. Input and involvement from the entire campus community is welcomed. For additional information call 303-556-6333.

### **High School Upward Bound**

This program is designed to generate the skills and motivation necessary for success in and beyond high school for youths who are low-income and first-generation college-bound students. The program provides intensive academic instruction during the school year, as well as a six-week summer session. A full range of academic skill preparation in reading, writing and mathematics is part of a comprehensive counseling and enrichment program. This program develops creative thinking, effective expression and positive attitudes toward learning. The students are recruited at the beginning of their sophomore year in high school from five target-area high schools located in Denver County (East, Lincoln, Manual, North and West High Schools).

### **Immigrant Services Program**

The Immigrant Services Program provides assistance to students whose first language is not English. The program offers intensive academic and personal advising, assessment, tutoring, assistance with the financial aid application process, and monitors student progress. Because the program does not offer ESL classes, students with limited English proficiency are referred to the appropriate curricula. For more information call 303-556-3676.

### **Informational Technology**

Information Technology at Metropolitan State College of Denver provides you with the opportunity to use the most current information technologies on campus or from home. Metropolitan State College of Denver offers 30 computer laboratories for use by all current students. The laboratories range from specializing in computer graphics to the most current

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engineering software. Information on the location and operating hours of student labs is available in the current class schedule, the student computing handbook or at <http://www.mscd.edu/~complabs/online>. MSCD students needing adaptive equipment or additional assistance with technology due to a disability can visit the Combined Computer Access Center (CCAC), Library room 115. The CCAC lab currently has software to assist students with hearing, learning, visual and orthopedic disabilities. Further information is available at <http://www.cudenver.edu/public/ccac/index.html>; 303-556-2441 (General Information).

The MSCD homepage (<http://www.mscd.edu>) provides many online services for students including:

- online registration
- online admissions
- orientation and assessment
- financial aid
- records
- course catalog, and
- class schedules

### APPROPRIATE USE POLICY

Before any student receives an email account, they are required to read and agree to the "Appropriate Use Policy." This policy is in place to protect all students, faculty, and staff, as well as the stability of the computing environment. It is important to be familiar with the terms of the "Appropriate Use Policy." Misuse of computing resources at MSCD may include suspension of computing privileges, referral to an appropriate authority on campus and referral to a law enforcement agency. Disciplinary action by the College may include suspension, expulsion and requirements to make financial restitution. The policy is listed in the student computing handbook and online at [www.mscd.edu/tech/policies/appropriate.htm](http://www.mscd.edu/tech/policies/appropriate.htm).

Information Technology at MSCD is committed to providing students with the best possible computing service on campus and from home. Further assistance is available in the student labs.

## Institute for International and Intercultural Education

The college provides assistance to visiting faculty and students. Important information and counseling is offered on visas, school transfers, work permission, housing, banking, and cultural and academic adaptation. The office also provides assistance to students who wish to arrange individualized study-abroad opportunities. The institute organizes numerous conferences and lectures on international issues throughout the year.

The institute also provides information on cross-disciplinary individualized degree major and minor programs in international studies, international courses offered by various departments, and intercultural courses. For information, contact the director of International and Intercultural Education at 303-556-4004.

## Metro North and Metro South

Please see [Extended Campus](#).

## Student Finance Resource Center (SFRC)

The Student Finance Resource Center offers the following services and professional development opportunities:

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- financial planning
- individual budgeting sessions
- emergency student loans
- student travel grants

The SFRC is committed to providing students with the means to solve temporary and long-term financial problems by guiding and educating them on personal finances (i.e., budgeting, debt counseling, financial planning, and emergency funding). The Student Travel Program offers travel grants to clubs, student organizations, and individual students attending and/or presenting papers at professional conferences and educational events within the domestic United States. Additional information and applications are available in the Program office located in Tivoli 311 or call 303-556-3559.

### Health Center at Auraria

All MSCD students are entitled to medical services at the Health Center. Student health insurance is **NOT** required to use the Health Center. Physicians, physician assistants, nurse practitioners and medical assistants staff the facility. Students will be asked to complete a sign-in sheet and show a current semester ID card each time they check in.

Services include treatment of illness and injuries, lab testing, medications, physicals, annual GYN exams, sexually transmitted disease information/testing, birth control information/services, minor surgery, cholesterol screening, immunizations, HIV testing, blood pressure checks, casting, suturing and X-ray. *Payment is required at the time of service except for students who participate in the Student Health Insurance Program.*

Walk-in services begin at 8 a.m., Monday - Friday. Access is on a first-come, first-served basis. Walk-in access varies daily, contingent upon when all patient slots have been filled; thus, the daily closure time for walk-in care is variable. Patients are encouraged to check in as early as possible. The Health Center at Auraria is located in the Plaza Building, room 150, on the lower level. Brochures with additional information are available at the Health Center or go to our website at <http://www.mscd.edu/student/resources/health/>. For further details call 303-556-2525.

### Student Intervention Services

Student Intervention Services (SIS) monitors and tracks three cohorts of the student population at MSCD. SIS assists and serves all students who are admitted by the alternative admissions' process. Our goal is to assist the student to be successful by providing comprehensive and individualized services that will lead to improved student retention. The second cohort of students tracked are the students whose cumulative GPA has fallen below a 2.0 for one, two or three semesters. Students are notified by mail of their status, and encumbrances are placed on their registration. SIS also coordinates the Early Warning System, providing mid-term grade assessments, support and referral services to students. For those students who are in academic difficulty, SIS provides an in-depth strategy for success including assistance with graduation plans, scheduling, advising and referrals. The office is located in Central Classroom Building, Room 102, 303-556-4048.

### Student Legal Services at Auraria

Student Legal Services at Auraria is a student-fee funded program that serves registered students from The Metropolitan State College of Denver, the University of Colorado at Denver and the Community College of Denver. The program is staffed by licensed attorneys who assist students with landlord-tenant problems, criminal prosecutions, traffic/DUI cases and family/domestic issues. Specifically, the attorneys engage in a problem-solving process with the student to develop and explore various legal strategies and options. If a case

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requires legal representation and/or is beyond the expertise of the program's attorneys, the office will provide to the student information about community resources that may provide legal representation either on a no-cost or low-cost basis, depending upon the substantive area and the availability of attorneys. Because the program's budget only allows for 50 hours per week of the attorneys' time, the office should be contacted to ensure an office visit or phone interview. Please note: this office is unable to advise on issues arising between students or involving any of the three institutions as this creates a conflict of interest. The attorneys can neither represent the student nor make a court appearance on the student's behalf. The office is not staffed to respond to emergencies. More information is available at the Tivoli Student Union, room 262, or call 303-556-6061.

### **Student Support Services Program**

The Student Support Services program is designed to improve the retention and graduation rates of first generation, low income students and students with disabilities. Students enrolled in the program receive tutoring, personal counseling, academic advising, assistance in obtaining financial aid and opportunities to participate in cultural enrichment activities. The program also provides support services including educational and graduate school workshops, computer assisted instruction and basic skills instruction in reading, writing, math and science. The program administers two scholarship programs and houses a computer lab for participants' use. The Student Support Services office is located in Central Classroom 201. For more information call 303-556-4722.

### **Summer Bridge Program**

The Summer Bridge Program, managed by the Student Development Center, facilitates the transition and prepares first-time college students for their freshman year at The Metropolitan State College of Denver. The program provides an opportunity for students to get a head start on their college education and become familiar with the college experience on the Auraria Campus. Students receive a scholarship for tuition and fees for two college-level courses. Additionally, students have an opportunity to participate in enrichment workshops and activities that further encourage their connection to MSCD. The goal of the Summer Bridge Program is to provide students with the tools and strategies that will maximize their chances for academic success and personal growth and development. The office is located in the St. Francis Center on the second floor, 303-556-4023.

### **The Spring International Language Center at Auraria**

Intensive English classes at the Spring International Center focus on all language skills: grammar, reading, writing and listening/speaking, in addition to special electives that students can choose each term, such as TOEFL preparation, vocabulary building and pronunciation. Five nine-week terms are offered throughout the year to enable students to complete their English study quickly. Students are placed at one of the six levels, with standardized evaluation tests at the completion of each level. Spring International Language Center is located on the fourth floor of the Tivoli Student Union, Room 454. For more information call 303-534-1616.

### **Tivoli Student Union**

As one component of Student Auxiliary Services that includes the Auraria Child Care Center, Auraria Book Center, Campus Computers, Auraria Reprographics, Clicks Office Supply and four copying centers, the Tivoli Student Union serves as the heart of campus culture, services and social activity at Auraria.

The Tivoli Student Union conveniently houses the offices of Student Life/Activities and Student Government for the Community College of Denver, The Metropolitan State College of Denver, and the University of Colorado at Denver. Additionally, offices for Metro Athletics, UCD Career Counseling, Spring International Language Center, MSCD Counseling Services,

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MSCD New Student Orientation office, Student Legal Services at Auraria, all three school newspapers, Tivoli Tickets (TicketMaster), ClubHub, student ID program, Auraria Book Center, two credit unions, student study lounges, a number of specialty shops, atrium food court, restaurants and Sigi's Pool Hall and Arcade are located in the Tivoli Student Union. For information phone 303-556-6330.

Tivoli Conference Services, located in room 325, will help you with obtaining conference and meeting space in the Tivoli as well as outdoor table rentals. Telephone 303-556-2755 for more information.

### **Tutoring Program**

The Tutoring Program provides free tutoring assistance to all students enrolled at the Metropolitan State College of Denver in an effort to promote academic success. The program is structured to accommodate the needs of culturally diverse students. Students may be referred to the Tutoring Program by an instructor or can seek assistance on their own. Trained peer tutors will help students reach their educational goals. Group and individualized tutoring is available. The office is located in the St. Francis Center on the second floor, 303-556-6438 or 303-556-3411.

### **Veterans Services**

The Veterans Services Office assists students in procuring their GI Bill entitlement. The Veterans Services Office acts as the liaison between the U.S. Department of Veteran Affairs and the veteran/dependent student. Different VA classifications provide different types of entitlement. Student veterans/dependents may be eligible for tutorial assistance, VA work-study, advance payment, emergency student loans, etc. The office also certifies and tracks the academic progress of entitled veterans. If there are any questions or problems regarding eligibility, payment, tutoring, etc., please speak with a representative in CN 105 or call 303-556-2993.

### **Veterans Upward Bound**

Veterans Upward Bound is a federally funded program designed to identify, recruit and motivate veterans to pursue their personal career goals through higher education.

Veterans Upward Bound provides refresher courses and tutorial help so that survival in academic or vocational/technical programs is maximized. This is accomplished during a 12-week semester. Ancillary services such as career counseling, financial aid advisement, college counseling and job placement are also provided for participants.

### **Women's Services**

The Institute for Women's Studies and Services is committed to the empowerment of women through education. To help students have a positive college experience, women's services provides referrals to campus and community resources, information about scholarships, assistance with the process of entering MSCD, advocacy services for students dealing with harassment or discrimination, and programs and events that focus on issues of particular concern to women. The institute houses a small library with a variety of books and other resource materials on women's experiences, histories and contributions to society. Students who need assistance should make an appointment with the associate director of the Institute for Women's Studies and Services.

### **Writing Center**

The Writing Center staff of composition instructors and trained writing tutors is committed to working with students in developing their writing abilities. Tutors help students identify problem areas and provide instruction on how to eliminate them. Through one-on-one

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instruction, tutors teach students to generate, organize, and develop ideas; to revise and edit with confidence; and to handle issues of format and documentation. For more information contact the Writing Center at 303-556-6070.

## **STUDENT LIFE**

The Office of Student Life offers students a wide range of services and programs designed to enhance classroom experiences and encourage campus involvement. Services include Judicial Affairs, Student Problem Action Network (SPAN); Student Activities; student clubs and organizations; Student Publications; Counseling Center; Campus Recreation; Health Center at Auraria; Student Legal Services at Auraria; Gay, Lesbian, Bisexual, and Trans Student Services; Student Government Assembly (SGA) , New Student Orientation and the Student Finance Resource Center. These student-fee-funded programs exist to provide a diverse range of experiences in leadership development and programs that encourage cultural, recreational, educational, and social interaction. The Office of Student Life is located in the Tivoli Student Union, room 311. Our web site is <http://www.mscd.edu/~studlife/>.

**Student Affairs Board (SAB)** - The Student Affairs Board enables students to have a continuous voice in the use and allocation of their student fees. The SAB is comprised of student, faculty and administrative representatives.

**Student Problem Action Network (SPAN)** - The SPAN Program helps students resolve problems on campus. This program involves trained advisors who can assist students in defining their problem, formulate a strategy of reaching a solution, and inform them about the institutional process for resolving the issue. This program is part of the judicial affairs area and is staffed by volunteer faculty and campus personnel. For additional information, please refer to the *Student Handbook* or come to the Tivoli, room 311.

### **Student Activities**

The Office of Student Activities provides opportunities for student development and growth through a variety of programs that link students' academic lives with their lives outside the classroom. Student Activities' programs are educational, cultural, social and recreational, and give students an opportunity to enhance their social responsibility and leadership skills.

Student Activities has four distinct functions to help students get connected and involved in campus life: programs, events and co-curricular opportunities; student organization services; Metro Cool (service learning); and leadership education. These functions are designed to:

1. enlighten, stimulate and entertain the campus community,
2. promote student self-worth and dignity,
3. develop self-confidence,
4. help students become better prepared for life-long learning and increased organizational and social complexity,
5. teach students fiscal responsibility,
6. provide developmental experiences for students to help them take responsibility for program and service delivery, and
7. teach responsible citizenship and an ethic that encourages responsible social action.

The office is located in the Tivoli Student Union, room 305, 303-556-2595. Office hours are 8 a.m.-5 p.m., Monday through Friday.

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### **Student Government Assembly**

Through channels of advocacy and outreach with faculty and administration, the Student Government Assembly (SGA) members work with and on behalf of individual students and the MSCD student population as a whole to ensure that students' voices are heard and that the best interest of all students is considered. SGA members are committed to enhancing opportunities for student involvement and success in their campus life. The SGA office is located in the Tivoli Student Union, suite 307, 303-556-3312.

### **Student Publications**

The student newspaper, The Metropolitan, is published by the Office of Student Publications, Tivoli, room 313, 303-556-2507. The newspaper offers students the opportunity to explore fields such as journalism, web page design, advertising sales, video and audio production, marketing, graphic arts, photography, business and accounting through work experience. The Metropolitan and companion web site, Metropolitan Online, are written by and for MSCD students. Both are published weekly during the fall and spring semesters and monthly during the summer semester. Students interested in working on the paper or web site should contact the student editor at 303-556-8353.

Metrosphere is the annual student literary and arts publication and is distributed each spring semester. It contains poetry, fiction, nonfiction, art, photography and graphics. The Metrosphere also produces an interactive multimedia CD-ROM containing further art, poetry and writing. It is written, composed and produced entirely by students. Submissions are accepted during the fall semester. Copies are distributed free to students and are available in Tivoli room 313. For more information, call the student editor at 303-556-3940.

A weekly streaming video news program, Met On-Air, is broadcast from the Office of Student Publications. Plans are under way for a campus webcast radio station, Met Radio. To volunteer for Met On-Air or Met Radio, call 303-556-2507 or stop by Tivoli 313.

The office also produces the Student Handbook and provides graphic art services at reduced costs to on-campus offices, departments, organizations and individuals. To access all online student publications, go to <http://www.mscd.edu/~themet>.

### **Campus Recreation**

The Campus Recreation at Auraria program is among the most affordable ways that students have found to enjoy themselves, and it is among the best recreation programs offered in Colorado. The program is composed of the Drop-In Program (informal recreation), Intramurals, Club Sports, Outdoor Adventure and the Physically Challenged Program. Student membership is free with a current, validated student ID.

The Drop-in Program provides group and individual activities for students, faculty, staff, alumni and guests. Facilities include four basketball courts, 12 tennis courts, volleyball courts, a 25-yard indoor pool, eight handball/racquetball courts, two squash courts, a weightroom, a fitness center, a dance studio, a baseball field, softball fields and a track. In addition, Campus Recreation offers high- and low-impact aerobics, step aerobics and aqua aerobics daily. The Drop-in Program also offers a new instructional component, Healthy Lifestyles, which consists of a variety of noncredit instructional workshops, clinics and seminars. Check the Drop-in Program schedule in room 108 of the Physical Education Building or call 303-556-3210 for a listing of available times.

The Intramural Program consists of individual and team activities open to all students, faculty and staff members. The emphasis of the program is on participation, sportsmanship and social interaction. Whenever possible, competitive and recreational divisions are offered

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to ensure participation for all ability levels. Activities include flag football, basketball, floor hockey, volleyball, racquetball and squash leagues, as well as tennis and golf tournaments.

Club Sports provides students, faculty and staff members the opportunity to develop their individual athletic abilities in an organized group setting. The present clubs, which are all student initiated, include aikido, fencing, men's lacrosse, men and women's rugby, men's volleyball, coed waterpolo, badminton, ski/snowbashers and tai chi.

Outdoor Adventure provides the opportunity to experience the beauty and challenge of nature through organized trips. The program provides outdoor recreational experiences emphasizing skill acquisition, social interaction, environmental awareness and safety. Some of the many adventures offered are biking, canoeing, cross-country skiing, downhill skiing, family-fun outings, hiking, ice climbing, kayaking/rafting, naturalist outings, rock climbing and sailing. The program also provides rental equipment, including camping and hiking gear, canoes, cross-country skis, mountain bikes and roller blades. The office is located in the basement of the Events Center.

The Physically Challenged Program offers a variety of sporting, recreational, and fitness opportunities for students with physical or learning limitations. The adaptive programs/services encompass one-on-one or group sessions that assist in using the recreational facility. Information on planned group activities or individual help sessions is available in the Events Center, room 108, 303-556-3210.

### **Intercollegiate Athletics**

The Intercollegiate Athletics program plays an integral role in campus life at The Metropolitan State College of Denver. MSCD offers 10 intercollegiate sports programs: baseball, men's basketball, women's basketball, men's soccer, women's soccer, men's swimming and diving, women's swimming and diving, men's tennis, women's tennis and women's volleyball.

The teams, nicknamed the Roadrunners, compete at the Division II level of the National Collegiate Athletic Association (NCAA). The Roadrunners are members of the 14-member Rocky Mountain Athletic Conference (RMAC), which was founded in 1909 and features modest-sized schools with limited athletic budgets.

Scholarships are available for each of the 10 intercollegiate sports. They are disbursed by individual coaches on the basis of merit, athletic ability and team needs. Scholarships are awarded on a yearly basis.

The Intercollegiate Athletics Office is located in the Tivoli Student Union, room 355, 303-556-8300.

## **ALTERNATIVE CREDIT OPTIONS**

### **Credit for Prior Learning**

Successful completion of special examinations, completion of a prior learning portfolio, or assessment of nonaccredited training programs through published guides, may be used to award credit or may permit placement in advanced courses. A student may earn up to 60 semester hours of credit toward degree requirements using prior learning credit options. This type of approved credit will be posted to the student's record after the completion of 8 semester hours of residency credit. Prior learning credit may not be used toward the last 12 semester hours of a degree program, does not substitute for residency requirements, and



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cannot be used to challenge prerequisite courses for courses already completed. Students are advised that letter grades are not assigned for such credit, and some institutions may not accept transfer credits that do not include letter grades. Additional information is available from the offices indicated in each section below and from the Center for Individualized Learning, Central Classroom 106, 303-556-8342.

### Advanced Placement Examinations

Students who have performed satisfactorily in special college-level courses while in high school, and who have passed appropriate advanced placement examinations conducted by the College Entrance Examination Board, may have official AP scores submitted directly to the Office of Admissions for consideration for college credit. This office, in consultation with the appropriate department chair, determines the amount and nature of the credit and/or advanced placement granted. AP credit is awarded after the completion of eight credit hours at MSCD. (See following chart.)

### Course Credit Awards For Advanced Placement Exams

AP SCORE	2	3	4	5
Biology		BIO 1080-3 & BIO 1090-1	BIO 1080-3 & BIO 1090-1	BIO 1080-3 & BIO 1090-1
Chemistry		CHE 1800-4	CHE 1800-4 CHE 1810-4 CHE 1850-2	CHE 1800-4 CHE 1810-4 CHE 1850-2
Computer Science (A)			CSI 1300-4	CSI 1300-4
Computer Science (AB)		CSI 1300-4	CSI 1300-4 CSI 2300-4	CSI 1300-4 CSI 2300-4
Economics (macro)		ECO 2010-3	ECO 2010-3	ECO 2010-3
Economics (micro)		ECO 2020-3	ECO 2020-3	ECO 2020-3
English (Comp & Lit)		ENG 1010-3 ENG 1100-3	ENG 1010-3 ENG 1020-3 ENG 1100-3	ENG 1010-3 ENG 1020-3 ENG 1100-3

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English (Lang & Comp)		ENG 1010-3	ENG 1010-3 ENG 1020-3	ENG 1010-3 ENG 1020-3
Gov't & Politics (U.S.)		PSC 1010-3	PSC 1010-3	PSC 1010-3
Gov't & Politics (comparative)		PSC 1020-3	PSC 1020-3	PSC 1020-3
History (European)		HIS 1010-3	HIS 1010-3 HIS 1020-3	HIS 1010-3 HIS 1020-3
History (American)		HIS 1210-3	HIS 1210-3 HIS 1220-3	HIS 1210-3 HIS 1220-3
Math (Calc AB)		MTH 1400-4	MTH 1410-4	MTH 1410-4
Math (Calc BC)		MTH 1400-4	MTH 1410-4 MTH 2410-4	MTH 1410-4 MTH 2410-4
Physics (B)		PHY 2010-4 PHY 2020-4 PHY 2030-1 PHY 2040-1	PHY 2010-4 PHY 2020-4 PHY 2030-1 PHY 2040-1	PHY 2010-4 PHY 2020-4 PHY 2030-1 PHY 2040-1
Physics (C-Mechanics)		PHY 2311-4 PHY 2321-1	PHY 2311-4 PHY 2321-1	PHY 2311-4 PHY 2321-1
Physics (C-Magnetism, Elec.)		PHY 2311-4 PHY 2321-1 PHY 2331-4	PHY 2311-4 PHY 2321-1 PHY 2331-4	PHY 2311-4 PHY 2321-1 PHY 2331-4 PHY 2341-1

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		PHY 2341-1	PHY 2341-1	
Psychology		PSY 1001-3	PSY 1001-3	PSY 1001-3
Spanish Language	SPA 1020-5	SPA 2110-3 SPA 2120-3	SPA 2110-3 SPA 2120-3 SPA 2310-3	SPA 2110-3 SPA 2120-3 SPA 2310-3
Spanish Literature	SPA 1020-5	SPA 2110-3 SPA 2120-3	SPA 2110-3 SPA 2120-3 SPA 2310-3	SPA 2110-3 SPA 2120-3 SPA 2310-3
German Language	GER 1020-5	GER 2110-3 GER 2120-3	GER 2110-3 GER 2120-3 GER 2310-3	GER 2110-3 GER 2120-3 GER 2310-3
German Literature	GER 1020-5	GER 2110-3 GER 2120-3	GER 2110-3 GER 2120-3 GER 2310-3	GER 2110-3 GER 2120-3 GER 2310-3
French Language		FRE 2110-3	FRE 2010-3 FRE 2110-3	FRE 2010-3 FRE 2020-3 FRE 2110-3
French Literature		FRE 2110-3	FRE 2110-3	FRE 2110-3 FRE 3010-3
Statistics		MTH 1210-4	MTH 1210-4	MTH 1210-4

### International Baccalaureate

MSCD recognizes the greater potential for success of international baccalaureate students. Accordingly, academic departments may award credit for demonstrated proficiency on a

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case-by-case basis. Students who have international baccalaureate results at the higher level may have an official transcript sent directly to the Office of Admissions for consideration for college credit.

### College-Level Examination Program (CLEP)

CLEP consists of two series of national standardized examinations: the general examinations and the subject examinations. They are designed to evaluate nonaccredited college-level learning in order to award credit for successful demonstration of this knowledge.

The general examination series includes five separate examinations covering the areas of English composition, humanities, natural sciences, mathematics and social science/history. Based on the results of these examinations, the College may award up to a maximum of 24 semester hours of credit in the freshman General Studies requirement areas. Thus, the successful student may test out of many of the traditional courses required during the freshman year. Students are advised to check with their major departments for information on specific General Studies requirements that may not be met by CLEP examinations. MSCD does not allow CLEP credit for ENG 1020, the Freshman Composition: Analysis, Research and Documentation course.

The subject examination series consists of more than 45 examinations that apply to specific college courses. MSCD allows credit for some of these examinations. Thirty (30) semester hours of credit also may be awarded under this series, making a total of 54 semester hours of credit obtainable under a combination of the two series of examinations.

- Credit earned through the general examinations may be applied only to General Studies requirements. Credit earned through subject examinations may apply to any required course work unless otherwise stated.
- Credit earned will be entered on the student's transcript with the title of the examination(s), without reference to a specific MSCD course(s). CLEP examinations are recorded without reference to a letter grade and are not figured into the student's GPA. Credit earned through CLEP examinations does not count towards residency credit requirements, and therefore, may not be awarded as part of the last twelve credit hours applicable to a degree.
- Credit earned through CLEP examinations will not be recorded on the student's permanent record until the student has earned 8 hours in residency credit at MSCD.
- In order to evaluate CLEP examination or military examination (DANTES) results, the student should have a copy of the official score report sent to the following address: The Metropolitan State College of Denver; Office of Admissions, ATTN: Transfer Evaluation; Campus Box 16; P.O. Box 173362; Denver, CO. 80217-3362.
- All CLEP examinations will be subject to the statement of policy in place at the time the scores are submitted, not the policy in place at the time the examination was taken.
- Credit awarded through CLEP examinations at other colleges or universities will be re-evaluated at MSCD according to the MSCD policy in place at the time the test scores are submitted. Students are advised to have an official copy of their score(s) sent to MSCD in order to have that credit evaluated.
- MSCD will not grant credit for a CLEP examination if prior to the semester the exam is taken, a student has completed, or was enrolled in, college courses equivalent to, or more advanced than, the subject material of the exam. Credit will not be recorded on a student's permanent record until all official transcripts from other regionally accredited colleges and universities attended by the student have been received and evaluated by the Office of Admissions.

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- Any exception to these policies must be approved through the Board on Academic Standards Exceptions (B.A. S.E.). Information about filing an appeal through B.A.S.E. is available from the Office of Academic Affairs.
- Failure to achieve the required score(s) listed will not be entered on the permanent record. However, a copy of the CLEP score report will be retained in the student's file.
- Any general or subject examination may be repeated 6 months after the date of the previous examination.

For advising assistance with CLEP examinations and information about other prior learning credit options such as departmental credit by examination and portfolio assessment, students may contact the Center for Individualized Learning, CN 106, 303- 556-8342. Additional information about the content and format of CLEP examinations is available through the College Board web site at <http://www.collegeboard.org/clep>. Examinations may be taken through the Community College of Denver Test Center, 303-556-3810, South Classroom Building 232. Other testing centers within the metropolitan area and within Colorado can be found through the College Board web site listed above.

The scoring of general examinations will change with computer-based testing from a scaled score of 200-800 to a scaled score of 20-80. A scaled score of 50 will be required before credit can be awarded for computer-based general examinations, available July 2001.

### CLEP General Exam Standards

CLEP General Exam	Minimum Score for MSCD Credit-4	MSCD Credit	MSCD Category	No Credit for Prior Enrollment-2
English Composition with Essay	500	3	Freshman Composition	ENG 1010
Natural Sciences-1	500	6	Natural Sciences	BIOI 1000 AST 1040 CHE 1010 GEL 1010 PHY 1000
Mathematics	500	3	Mathematics	MTH 1080
Humanities-1	500	6	Arts and Letters	ART 1040 MUS 1000

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Social Science and History-1	500	6	Social Science	ENG 1100, 1110 or ENG 1120
				ECO 2010
				HIS 1000
				PSC 1010
				PSY 1001
				SOC 1010

### CLEP Subject Exam Standards

The exams listed below are the only ones that MSCD accepts.

CLEP Subject Exam	Minimum Score-4	Credit Granted	No Credit for Prior Enrollment-2
American Government-1	50	3	PSC 1010
American Literature	50	3	ENG 2210, 2220
Analysis and Interpretation of Literature-1	55	3	ENG 1100, 1110, 1120
English Literature	50	3	ENG 2310, 2330
General Biology-1	50	6	BIO 1000
General Chemistry	52	6	CHE 1800
	58	8	CHE 1800, 1810
History of the U.S. I	53	3	HIS 1210
History of the U.S. II	53	3	HIS 1220
Human Growth and Development-3	56	3	PSY 2210
Introductory to Psychology-1,3	56	3	PSY 1001
Introductory Sociology-1	51	3	SOC 1010
Information Systems and Computer Applications	57	3	CMS 1010, CSS 1010

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Principles of Macroeconomics-1	55	3	ECO 2010
Principles of Microeconomics	55	3	ECO 2020
Principles of Management	46	3	MGT 3000
Western Civilization I	53	3	HIS 1010
Western Civilization II	53	3	HIS 1020

1. Although the general examinations and the subject examinations are essentially independent, where there is overlap between the two series, credit may be obtained by completing only one of the two overlapping examinations.
2. If during or subsequent to the semester the exam is taken, the student earns credit in a course(s) in column 5 of the table that outlines General Examinations accepted at MSCD, the credit value of the course(s) will be subtracted from the corresponding CLEP credit previously awarded.
3. The Psychology Department does not allow CLEP credit toward the total number of semester hours required for a Psychology major or minor; extra course work is necessary to make up the difference. However, CLEP can count toward the degree.
4. The minimum required score for credit at MSCD for computer-based CLEP General Examinations (available July 1, 2001) will be 50 rather than 500. This reflects a change in the scoring format, not a change in the knowledge required. Subject examination scores required for granting credit may also change as test formats change.

### Attainment Examinations

Any student may take attainment examinations in some departments for the purpose of waiving specific graduation requirements. Passing such an examination, although not reducing the number of credits required for graduation, entitles students to substitute their own choice for the required subject. The examination is approximately the equivalent of the final examination in the course.

### Departmental Course Examinations

In special cases, a department may grant students credit toward graduation for college courses that they request and pass special college examinations. Under this provision, a maximum of 30 semester hours of credit may be awarded by the college. There is a charge for this service.

Examinations for credit must be based on work equivalent to a regular course offered by the college (omnibus-numbered courses are excluded). The credit granted will be for the corresponding course, provided the student has no previous collegiate enrollment for a similar course and the credit is applicable toward the student's graduation requirements. Evidence of work justifying an examination for credit must be presented to the department chair no later than the third week of classes in a semester. Permission for such examination must be secured in advance from the appropriate dean upon recommendation of the department chair.

No application for credit by examination will be approved for a student who is not currently enrolled in good standing in a degree-seeking curriculum in the college. Credit by

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examination will not be approved for a student who is within 12 classroom semester hours of completing degree requirements. No credit by examination can be obtained for a course that a student has been officially enrolled at MSCD or at another institution, whether or not the course has been completed and a grade awarded. Credit by examination cannot be obtained for college courses attended as a listener, visitor or auditor.

If a student has completed a more advanced course than the course for which examination credit is desired, permission to take the exam will be granted if approved by the appropriate department chair and dean. If a student has already completed a sequence of courses, no examination credit can be given for courses lower in number than the highest-numbered course taken by the student. If a student has registered for a higher-numbered course in a sequence, the exam for the lower-numbered course must be completed within the first three weeks of the semester. Exceptions must be appealed to the Board of Academic Standards Exceptions following endorsement of the department chair or dean. Examinations cannot be taken to raise grades, to remove failures or to remove "NC," "SP" or "I" notations. Credit by examination is not applicable toward academic residence requirements.

Examination for credit will be taken at a time specified by the department after the special examination fee has been paid. No examination for credit in a college course may be repeated. A grade equivalent to "A" or "B" must be attained on the examination in order to receive credit, but credit so earned for the course will be recorded without grade reference on the student's permanent record. Credits in courses for which credit is earned by examination are not considered in computing college grade point averages. Credit by examination will be posted after a student has completed 8 semester hours of credit at MSCD and after an evaluation of all possible transfer credits has been completed.

### **Portfolio Assessment**

Students may apply for credit for college-level learning gained through experience by preparing and submitting a prior learning portfolio. Credit is awarded on the basis of a careful assessment of the prior learning portfolio by faculty in the department from which credit is sought. Portfolio assessment is available in many, but not all, academic departments.

The portfolio is developed with the assistance of the Center for Individualized Learning, Central Classroom 106, 303-556-8342. Portfolio assessment may be used to apply for credit for specific courses listed in the Catalog. Students may also apply for credit for omnibus courses through portfolio assessment with the permission of the appropriate academic department. Applicants for credit through portfolio assessment will generally be required to take EDS 2680-1, The Portfolio Development Workshop.

There is a charge of one-half the part-time student tuition is charged for credit awarded through portfolio assessment; \$40 per requested course is due prior to the assessment of the portfolio by faculty and is nonrefundable. The remainder is due if and when credit is awarded. Policies which govern credit for prior learning options apply to credit awarded through the portfolio process.

Contact the Center for Individualized Learning for assistance and further information at 303-556-8342, Central Classroom 106. Information sessions about portfolio assessment and other credit for prior learning options are held on a regular basis.

### **Credit for Military Training and Other Training Programs**

Military training and other educational programs, including DANTEs, that have been assessed for college credit by the American Council on Education will be evaluated by the Office of Admissions for transfer credit at MSCD. For formal military training, copies of



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training certificates and a copy of the DD-214 should be submitted to the Office of Admissions. For other training, official ACE transcripts should be submitted. Credit limit is 30 semester hours.

### **Cooperative Education**

The Cooperative Education Internship Center places students in work experiences related to their academic major. The purpose of the internships is to integrate academic training with actual work experience. This combination allows students to make realistic career decisions, gain valuable work experience, obtain recommendations for graduate school and earn money to help defray college expenses.

Students work in large corporations, small businesses, government and nonprofit agencies throughout the metropolitan area. Most co-op students are paid by their employers, but in those professional fields where co-op salaries are not available, volunteer internship placements are offered to help students gain essential work experience.

Co-op internship placements are available in most academic majors and minors. Students must complete 30 semester hours of college coursework with a minimum 2.50 GPA and have a declared major to be eligible for registration with co-op. No fees are charged to the student or employer for participation in the program, and each student's interests and job requirements are discussed individually with a professional coordinator.

Students may choose from three different work schedules based on the academic calendar. The alternating plan provides full-time periods of work every other semester with intervening semesters spent in full-time study. The parallel schedule places students in a job while they simultaneously attend school. These positions are usually part-time. The short term/summer plan allows students to elect a work experience that lasts for no more than one semester.

The college awards academic credit for supervised cooperative education placements. Students must complete a credit application, available from the co-op office, and this application must be approved by a faculty member from the department in which credit is to be granted. No more than 15 semester hours of cooperative education credit will be applied toward MSCD degree requirements. Credit earned for the co-op education work experiences are not applicable toward General Studies requirements. Additional departmental restrictions may apply to certain majors.

### **Service-Learning**

The Service-Learning Program combines classroom experience with service to the metropolitan community. Participating students receive credit for appropriate public service, which is beneficial to the community and expands student horizons in intellectually and personally meaningful ways.

Emerging from a wide variety of disciplines, service-learning courses are structured by faculty to weave service into community-based and government agencies, with classroom reflection and analysis of the learning offered through these experiences. The courses are also designed to address real needs in our multicultural world, such as homelessness, at-risk youth, domestic violence, the environment, culture and the arts, and mental illness. Agencies that have provided service opportunities include Fort Logan Mental Health Center, the Denver Commission on Aging, Big Sisters, the Colorado Historical Society, the Rape Assistance and Awareness Program, and numerous elementary and high schools, senior centers, and nursing homes.

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Service-learning credit is available in most academic majors and minors. Prerequisites and other requirements vary with each department. To learn how to participate in this program, including discussions of placement options, students should contact or visit the Service-Learning Program office to schedule an interview.

## **SPECIAL ACADEMIC PROGRAMS**

### **The First Year Program**

The First-Year Program is designed to unify and coordinate college efforts to help entering students achieve a successful first year. The program provides intensive advising, course selection guidance and academic monitoring throughout the first year, as well as coordinating academic support services for first year students. Additionally, the program offers a First-Year Seminar course, XXX 1190, which provides appropriate readings and written work enabling students to discuss and write about current issues including the value of higher education. All first-time MSCD students may enroll in the First-Year Seminar course and other appropriate courses as determined by assessment at entry. The program furnishes an environment where problem solving, creativity and peer interaction are encouraged. For additional information call 303-556-8447.

### **The Honors Program**

The Honors Program provides an academic program for highly motivated students with broad academic interests. The program provides honors sections of General Studies courses and unique interdisciplinary courses. Honors courses are small in order to encourage class participation and a close relationship between students and faculty. Honors classes are designed to promote independent thought and creative inquiry. The director of the Honors Program and the honors faculty provide academic advising and serve as mentors to students as they consider their post-graduate goals. The ultimate mission of the Honors Program is to create a community of scholars. It sponsors an Honors Club, an annual Honors Conference, and study-abroad courses which allow students to explore ideas outside the classroom. Students who complete 27 semester hours of honors courses, including a thesis, will receive an honors designation on their transcript.

An Honors application form may be obtained from the Honors Program Director. Since the Honors Program participates in the Colorado Scholarship Program, students admitted to the Honors Program are eligible to apply for a scholarship. Additional information on the Honors Program is available by calling 303-556-4865 or by inquiring in West Classroom Building, Room 147.

### **Required Honors Core Semester Hours**

<b>Required Honors Core</b>		<b>Semester Hours</b>
HON 2750	The Legacy of Arts and Letters I*	3
HON 2760	The Legacy of Arts and Letters II*	3
HON 4950	Senior Honors Thesis	3

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<i>Subtotal</i>		9
Students must take at least nine (9) hours from the following:		
HON 2800	History of Science	3
HON 2810	Development of Experimental Science	3
HON 2950	The Art of Critical Thinking*	3
HON 3800	Revolutions and Social Change I*	3
HON 3810	Revolutions and Social Change II*	3
HON 3850	American Culture I*	3
HON 3860	American Culture II*	3
<i>Subtotal</i>		9
Electives		
Honors students must choose three (3) elective courses with an Honors prefix in consultation with the Honors Program Director.		
<i>Subtotal</i>		9
<i>Total</i>		27

*\*Approved General Studies courses.*

### Individualized Degree Program

The Individualized Degree Program (IDP) offers students the opportunity to design and propose a major, extended major or minor to meet specific educational goals when other majors or minors listed in the Catalog cannot meet the student's educational objectives. Either a bachelor of arts or a bachelor of science degree in Individualized Studies may be sought. Each student will work with an advisor in the Center for Individualized Learning and with a faculty mentor to develop a proposal for his/her degree program. A practicing professional in the student's field of study may also be invited to serve as a community consultant to assist the student and the faculty in the development of the program of study. Because careful and thoughtful planning is essential to designing a coherent and congruent program of study, students are encouraged to begin developing their proposals early in their enrollment at MSCD.

Interested students should contact the Center for Individualized Learning, Central Classroom 106, 303-556-8342, for assistance and for complete information regarding the policies and procedures for the development and approval of an Individualized Studies major or minor. Information sessions are held throughout the year.

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Each Individualized Studies major or minor will be approved by the department chair from the academic department from which the majority of credit is drawn, the appropriate dean and the director of the Center for Individualized Learning.

- All requirements that apply to any bachelor's degree from MSCD apply to Individualized Studies.
- A grade of C must be earned in each course included in the student's major or minor, and students must have a GPA of 2.5 before an Individualized Studies program may be approved.
- The title for each student's program will be Individualized Studies with a concentration in \_\_\_\_\_.
- Majors may not include courses in Level II General Studies that have the same prefix as the department from which the majority of credit is drawn for their major.
- No more than 30 hours of credit out of the total of 120 credit hours may be included in the student's degree plan from the School of Business.
- Each Individualized Studies major or minor must include courses that have not yet been completed at the time the proposal is approved. See each IDP option below for the specific number of credits that must be completed after the proposal is approved by the department chair.  
Proposals may be submitted for:
  - An Individualized Studies MAJOR, which requires a minimum of 40 credit hours, including 21 hours of upper-division credit. Fifteen (15) hours must be completed after the proposal is approved by the department chair. A minor chosen from the Catalog is required.
  - An Individualized Studies MINOR, which requires a minimum of 20 credit hours, including 6 hours of upper-division credit. Six (6) hours must be completed after the proposal is approved by the department chair. A major chosen from the Catalog is required.
  - An Individualized Studies EXTENDED MAJOR may be proposed when the student's field of study requires more in-depth study or courses from multiple disciplines that cannot be accommodated in an IDP major. An extended major requires a minimum of 60 credit hours, including 27 hours of upper-division credit. Twenty-one (21) hours must be completed after the proposal is approved by the department chair. No minor is required.

## Institute for International and Intercultural Education

The Metropolitan State College of Denver is committed to providing all students with a strong educational foundation that enhances their understanding of the total human experience and enables them to maximize their potential for growth and development in a rapidly changing world. Through the programs of the Institute for International and Intercultural Education, students and faculty have opportunities to develop and participate in activities designed to promote a greater understanding and expertise in global issues. The Institute also seeks to maintain a positive environment that enhances the learning experiences of international students attending MSCD. The Institute is located in the Rectory Building, room 204, and can be reached at 303-556-4004. The following programs reflect the mission of the Institute.

### Individualized Degree Program

Students interested in pursuing an interdisciplinary major or a minor in international studies may do so under the Individualized Degree Program (IDP). The IDP allows students, in close consultation with and approval of a faculty mentor, to design a course of study that best meets their needs. Students may choose from a wide range of courses dealing with international topics that are regularly offered to complete a major or minor. Contact the

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Institute for International and Intercultural Education at 303-556-4004 or the Center for Individualized Learning at 303-556-8342, Central Classroom 106.

### **Study-Abroad Courses**

The Institute coordinates a variety of short-term and semester-long study abroad courses each year. During the past several years, these courses have been held in Mexico, England, Germany, France, Spain, Italy, Central America, Russia and Egypt. These courses are generally directed by full-time MSCD faculty, are two to five weeks in duration and are available to eligible students. Assistance is provided to students who choose to participate in study abroad courses offered by other U.S. or foreign universities.

The college operates two semester abroad programs in Guadalajara, Mexico and London, England. These are offered in cooperation with the University of Guadalajara and the American Institute for Foreign Study/Richmond College partnership. Students must be in good academic standing in order to participate in these programs.

Contact the Institute for information regarding the latest offerings.

### **Resource Center**

The Institute maintains a resource bank of information on:

- a multitude of study-abroad programs offered by other universities and organizations
- international internship opportunities
- graduate programs in international studies
- faculty seminars and conferences
- internationalization of curricula
- international employment opportunities

### **International Student Services**

The Institute provides a variety of services to international students attending MSCD. These include counseling on visas, school transfers, work permission and housing; conducting academic and cultural orientation sessions; assisting with immigration issues; providing information to embassies and sponsors; advising on academic issues; and organizing social and cultural events.

### **Faculty Services**

The Institute places a high priority on enabling interested faculty to enhance their international experiences and, consequently, enrich their curricula. The faculty are regularly informed of professional development seminars, international conferences, exchange opportunities and fellowships. International faculty teaching at MSCD are given assistance with immigration and related matters in accordance with college policies.

### **Special Events**

The Institute regularly organizes conferences, seminars and lecture series to promote intellectual discourses on issues affecting the contemporary world.

### **Community Connections**

The Institute maintains links with numerous local and national organizations and professional associations dealing with international, educational, economic, social and cultural activities with a view to strengthen college-community partnerships and to remain current with the latest developments in the area of international education.

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### **Language and Culture Institute**

The Language and Culture Institute was established in 1976 to organize study and travel abroad. The institute currently operates a summer program in Mexico, a summer intensive language institute in Germany, and a winter study and travel program in Mexico's Yucatan Peninsula and in Central America. The institute offers credit through the Modern Languages Department.

## **The General Studies Program**

### **Philosophy of the General Studies Program**

The Metropolitan State College of Denver seeks to prepare its graduates for a lifetime of learning, which, in our changing and complex society, requires focused expertise (such as that provided by a major area of study) and the ability to communicate with and learn from experts in other fields. Undergraduate education fosters the critical thinking necessary for the exploration of unfamiliar disciplines and for the synthesis of learning, and exposes students to the richness and variety of the intellectual universe.

### **General Studies Information**

Students must use a single catalog to meet all degree requirements, including those in the General Studies, major and minor. Some changes in General Studies requirements have been made retroactive. As a consequence, many General Studies requirements and policies described in this *Catalog* may be followed by students using earlier catalogs.

### **General Studies Goals**

The General Studies Program is designed to help graduates achieve the following competencies:

MSCD students should be able to:

1. Write and speak with clarity;
2. Read and listen critically;
3. Draw conclusions from quantitative data;
4. Recognize faulty reasoning;
5. Organize ideas; and
6. Communicate with experts in other disciplines and learn from them.

MSCD students should:

7. Have an open attitude toward different approaches to problems;
8. Have an informed awareness of the principal human achievements in history, arts and letters, society, and science; and
9. Be introduced to the basic methods, knowledge, problems or attitudes characteristic of a field.

### **Structure of the General Studies Program**

The General Studies Program is structured to foster the development of skills and to encourage students to use their mastery of skills to explore knowledge in a variety of disciplines. The General Studies Program provides two levels of experience:

#### **Level I-Skills**

Level I courses provide students with the basic skills of reading and listening critically, recognizing faulty reasoning, drawing conclusions from quantitative data, organizing ideas, and writing and speaking with clarity.

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### Level II-Breadth of Knowledge

Level II courses introduce students to the basic methods, knowledge, problems or attitudes characteristic of a field, encourage in students an open attitude toward different approaches to problems, enable students to communicate with experts in other disciplines and learn from them, and cultivate in students an informed awareness of the principal achievements in history, arts and letters, social science, and science. In addition, in Level II courses students will continue to develop their skills in language and mathematics.

### Distribution and Credit Requirements

To complete their General Studies Program, students must take approved courses that fulfill the following distribution and credit requirements:

Category	Semester Hours
Level I*	
Composition	6
Mathematics	3
Communications	3
Level II**	
Historical	3
Arts and Letters	6
Social Sciences	6
Natural Sciences	6
Total***	33

\*A transfer course or courses of at least 2 semester hours judged to be similar in skill development and content to a Level I course will satisfy an individual Level I course requirement. Equivalency will be determined by the department offering the Level I course.

\*\*One-hour deviations in the Level II categories may be allowed.

\*\*\*A student's completed General Studies Program must contain at least 33 semester hours.

### Basic Rules:

- Only approved courses may be used to satisfy the General Studies requirements. A current listing of these courses is published in this section, in the *General College Requirements* brochure, and in the Course Descriptions section of this *Catalog*.
- General Studies courses need not be counted toward General Studies requirements. They may be taken as electives or to satisfy requirements in the major or degree program.
- Departments or programs may specify, by prefix and number, some General Studies courses in addition to courses required for the major or a professional credential.
- Courses taken using the pass-fail option cannot be counted for General Studies.

## Level I Requirements: Composition, Mathematics and Communication

### Freshman Assessment: Reading, Writing and Mathematics Placement Exams

First-time college students are required to complete the reading, writing and mathematics placement examinations (see Assessment Requirements section). Examination results serve

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as the basis for academic advising. To increase their opportunity for success, students may be required to take courses below the level of the first-year courses offered by MSCD. Students should be aware, however, that no credit is given for courses that are below the college level.

### Placement Test Prerequisites

Students must have a passing score on the appropriate placement test before they will be allowed to register for Level I General Studies courses in English, mathematics and reading. Exceptions will be made for students who have earned at least a grade of "C" in the community college course specified by the department. The Assessment Center administers the placement tests. Students should consult an advisor in the Advising Center for guidance in selecting the appropriate Level I courses.

### COMPOSITION REQUIRED COURSES (minimum 6 semester hours)

ENG 1010	Freshman Composition: The Essay	3
ENG 1020	Freshman Composition: Analysis, Research & Documentation	3

### Rules: Composition Requirement

- Students must complete the ENG 1010 requirement within their first 30 semester hours at MSCD and the ENG 1020 requirement within their first 60 semester hours. These requirements may be postponed only if approved in writing by the English Department.
- Students must demonstrate the adequacy of their writing skills in the placement exam before enrolling in ENG 1010. Those students whose writing skills are inadequate will be counseled on how to improve those skills. Students may be required to complete additional coursework.
- Students will have satisfied the Level I composition requirements if they:
  - satisfactorily complete ENG 1010 and 1020, or
  - pass a CLEP or AP examination approved by the English Department (ENG 1010 only), or
  - transfer equivalent courses.

### MATHEMATICS (minimum 3 semester hours)\*

MTH 1080	Mathematical Modes of Thought	3
MTH 1110	College Algebra	4
MTH 1210	Introduction to Statistics	4
MTH 1310	Finite Mathematics for the Management & Social Sciences	4
MTH 1610	Mathematical Concepts for Teachers in Presecondary Schools	4



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### Rules: Mathematics Requirement

- Students will take the mathematics placement exam to determine their abilities to calculate with fractions, decimals and percents, and to know and use elementary geometrical formulas. Those whose skills are inadequate are required to complete college arithmetic coursework before enrolling in a Level I mathematics course. Some courses have additional requirements.
- Students must complete the Level I mathematics requirement within their first 30 semester hours at MSCD. This requirement may be postponed on an individual basis if the postponement is approved in writing by the Mathematical and Computer Sciences Department.
- Students will have satisfied the Level I mathematics requirements if they:
  - pass a mathematics course that has been approved for Level I mathematics credit (see courses listed above), or
  - pass a CLEP or AP examination approved by the Mathematical and Computer Sciences Department, or
  - successfully complete a mathematics course for which a Level I mathematics course is a prerequisite, or
  - transfer an equivalent course.

*\*A transfer course or courses of at least 2 semester hours judged to be similar in skill development and content to a Level I course will satisfy an individual Level I course requirement. Equivalency is determined by the department offering the Level I course.*

### COMMUNICATIONS (minimum 3 semester hours)\*

FRE 1020	Elementary French II	5
GER 1020	Elementary German II	5
HON 2950	The Art of Critical Thinking	3
PHI 1110	Language, Logic & Persuasion	3
RDG 1510	Cognitive Strategies for Analytical Reading	3
SPA 1020	Elementary Spanish II	5
SPE 1010	Public Speaking	3
SPE 1610/EDU 1610/MDL 1610	American Sign Language I	3
SPE 1710	Interpersonal Communication	3

### Rules: Communication Requirement

- Students must complete the required Level I communication course within their first 30 semester hours at MSCD.
- Students will have satisfied the Level I communication requirements if they:
  - pass an approved Level I communication course (listed above), or

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- pass a CLEP or AP examination approved by a department offering a Level I communication course, or
- transfer an equivalent course, or
- transfer a second semester, four- or five-semester hour foreign language course or a more advanced language course that is taught in a language not offered at MSCD, or
- pass or transfer an advanced foreign language course that is taught in the foreign language and that has MSCD's FRE 1020, GER 1020 and SPA 1020 or equivalent coursework, or more advanced coursework as a prerequisite, or
- pass or transfer an advanced public speaking course for which MSCD's SPE 1010 or a comparable course is a prerequisite.

Students who have satisfied the communications requirement using the advanced foreign language course or the advanced public speaking course must place that course in the Level I communications requirement slot. Level II General Studies courses used to satisfy the Level I communications requirements cannot also be counted in the Level II category.

*\*A transfer course or courses of at least 2 semester hours judged to be similar in skill development and content to a Level I course will satisfy an individual Level I course requirement. Equivalency is determined by the department offering the Level I course.*

## LEVEL II REQUIREMENTS

Courses approved to satisfy the Level II requirement are distributed among four categories. The categories, together with the minimum number of semester hours a student must accumulate to satisfy this requirement, are given below. One-hour deviations in the General Studies Level II categories may be allowed, provided the student has completed at least 33 semester hours of General Studies courses.

### Level II Categories

Historical	3
Arts and Letters	6
Social Science	6
Natural Science	6

### Rules: Level II Requirement

**Prerequisites:** Level II General Studies courses have at least the following prerequisites or corequisites, and some courses have additional prerequisites (see the Course Descriptions section in this *Catalog*).

- Historical and Arts and Letters:
  - Courses numbered 1000 to 1990: minimum performance standard scores on reading and writing preassessment placement tests
  - Courses numbered 2000 to 2990: satisfaction of the Level I mathematics course requirement and either ENG 1010 or the Level I communication course requirement
  - Courses numbered 3000 and above: satisfaction of all Level I General Studies course requirements
- Natural Science and Social Science:

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- Courses numbered 1000 to 1990: minimum performance standards scores on the reading, writing and mathematics preassessment placement tests
- Courses numbered 2000 to 2990: satisfaction of the Level I mathematics course requirement and either ENG 1010 or the Level I communication course requirement
- Courses numbered 3000 and above: satisfaction of all Level I course requirements
- Students may not use courses having the same prefix as their major discipline or crosslisted with their major discipline to satisfy the Level II requirements.
- Students may use courses having the same prefix as their minor discipline or crosslisted with their minor discipline to satisfy General Studies requirements. However, a minimum of 18 credits must be used only in the minor and not for General Studies. Deviations from the Catalog requirements require approval of the minor department, and some departments require that more than 18 credits be used only in the minor. Please contact the minor department for additional information.
- Students may not apply more than 8 semester hours of credit with the same course prefix to the Level II requirements.
- Students may use either prefix for a crosslisted course, i.e., one designated XXX (YYY). They must select the prefix they wish to use at registration; the selection may not be changed later.
- History majors must take three extra semester hours at Level II in the social science, arts and letters, or natural sciences categories in lieu of the three hours in the historical category.
- History majors may not use courses that are crosslisted with history courses for General Studies.

### **HISTORICAL (minimum 3 semester hours)\***

Historical courses aim to impart a broad knowledge of history with emphasis upon the major forces, persons and events that have shaped the modern world.

The following courses may be used to satisfy the General Studies, Multicultural and Senior Experience requirements. However, other courses may have been approved for such use after the publication of this *Catalog*. For up-to-date information, contact the Advising Center.

	FRE 3550	French Historical Perspectives	3
	HIS 1000	American Civilization	3
	HIS 1010	Western Civilization to 1715	3
	HIS 1020	Western Civilization since 1715	3
	HIS 1110	Colorado History I	3
	HIS 1210	American History to 1865	3
	HIS 1220	American History since 1865	3
	HIS 1250	China, Japan, Korea since 1800	3
	HIS 1650/WMS 1650	Women in U.S. History	3
mc	HIS 1910/CHS 1010	History of Meso-America: Pre-Columbian & Colonial Periods	3
mc	HIS 1920/CHS 1020	History of the Chicano in the Southwest: 1810 to Present	3

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mc	HIS 1930/NAS 1930	History of Indigenous/Hispanic Americans	3
mc	HIS 1940/AAS 1130	Survey of African History	3
	HIS 2010	Contemporary World History	3
mc	HIS 2950/AAS 2130	West African Civilizations	3
	HIS 3030	Ancient Orient & Greece	3
	HIS 3060	Rome and the Caesars	3
mc	HIS 3090	Native Americans in American History	3
	HIS 3120	Medieval History	3
	HIS 3140	Renaissance & Reformation	3
	HIS 3310	England to 1714	3
	HIS 3320	England since 1714	3
mc	HIS 3590	American Immigration History	3
	HIS 3700	Modern China	3
	HIS 3740	Modern Japan	3
	HIS 3810	Latin America: Republics	3
	HIS 4110/HON 3850	American Culture I	3
	HIS 4120/HON 3860	American Culture II	3

History majors must take three extra semester hours at Level II in the Social Sciences, Arts & Letters, or Natural Science categories in lieu of the three hours in the Historical category. History majors may not use courses that are crosslisted with history courses for General Studies.

\*A one-hour deviation in the General Studies historical requirement may be allowed, provided the student has completed at least 33 semester hours of General Studies courses.

***Please note: "mc" indicates that the course is also approved as a multicultural course.***

### **ARTS & LETTERS (Minimum 6 semester hours)\***

Arts & Letters courses impart a broad knowledge of important works and major schools of thought from at least two centuries. They also provide a foundation for critical evaluation within the discipline.

The following courses may be used to satisfy the General Studies, Multicultural and Senior Experience requirements. However, other courses may have been approved for such use after the publication of this *Catalog*. For up-to-date information, contact the Advising Center.

mc	AAS 3240/ENG 3240	African American Literature	3
	ART 1040	Art Appreciation Survey	3

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mc	ART 3090	Art & Cultural Heritage	3
	ART 3950/WMS 3950	Women's Art/Women's Issues	3
	ENG 1100	Introduction to Literature	3
	ENG 1110	Introduction to Fiction	3
	ENG 1120	Introduction to Drama	3
	ENG 1310	Introduction to Shakespeare	3
	ENG 3030	Semantics	3
mc	ENG 3240/AAS 3240	African American Literature	3
	ENG 3420	English Bible as Literature	3
	ENG 3430	Classical Mythology	3
	ENG 3460	Children's Literature	3
	FRE 3110	Survey of French Literature I	3
	FRE 3120	Survey of French Literature II	3
	GER 3200	German Culture & Civilization	3
	HON 2750	The Legacy of Arts & Letters I	3
	HON 2760	The Legacy of Arts & Letters II	3
	MUS 1000	Introduction to Music	3
mc	MUS 2020	Jazz Styles-America's Music	3
mc	MUS 3000	Musics of America	3
	MUS 3040	Music & the Arts	3
	MUS 3050	Musics of the World	3
	PHI 1010	Introduction to Philosophy	3
	PHI 1030	Ethics	3
	PHI 3000	History of Greek Philosophy	3
	PHI 3020	History of Modern Philosophy	3
	PHI 3360	Business Ethics	3
	PSC 3050	Political Theory	3
	RDG 3060	Critical Reading/Thinking	3
	SPA 3200	Culture & Civilization of Spain	3
	SPA 3210	Spanish-American Culture & Civilization	3
	SPA 3220	Folklore & Culture of the Mexican Southwest	3
	SPE 2770/WMS 2770	Gender & Communication	3
	SPE 3080	Great American Speakers	3
	SPE 3740	Psychology of Communication	3
mc	SPE 3760	Cultural Influences on Communication	3

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	THE 2210	Introduction to Theatre	3
	WMS 2770/SPE 2770	Gender & Communication	3
	WMS 3510	Feminist Theory	3
	WMS 3950/ART 3950	Women's Art/Women's Issues	3

\*A one-hour deviation in the General Studies arts and letters requirement may be allowed, provided the student has completed at least 33 semester hours of General Studies courses.

**Please note: "mc" indicates that the course is also approved as a multicultural course.**

### **SOCIAL SCIENCES (Minimum 6 semester hours)\***

Social Science courses aim to explore the formation, behavior and interaction of various social, cultural, political or economic groups and institutions.

The following courses may be used to satisfy the General Studies, Multicultural and Senior Experience requirements. However, other courses may have been approved for such use after the publication of this *Catalog*. For up-to-date information, contact the Advising Center.

mc	AAS 1010	Introduction to African-American Studies	3
mc	AAS 2100/ CHS 2100/ ICS 2100/ NAS 2100/ WMS 2100	Women of Color	3
mc	AAS 2200/PSC 2200	Politics & Black People	3
mc	AAS 3300/SOC 3140	The Black Community	3
	AAS 3550/SOC 3440	The Black Family	3
	ACC 1010	Accounting for Non-Business Majors	3
	ANT 1310	Introduction to Cultural Anthropology	3
mc	ANT 2330	Cross-Cultural Communication	3
mc	ANT 3310	Ethnography of North American Indians	3
mc	ANT 3480	Cultural Diversity in Health & Illness	3
mc	CHS 1000	Introduction to Chicano Studies	3
mc	CHS 2100/ AAS 2100/ ICS 2100/ NAS 2100/ WMS 2100	Women of Color	3
mc	CHS 3100/SOC 3130	The Chicano Community	3

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	CHS 3210/SOC 3470	The Chicano Family	3
	ECO 2010	Principles of Economics-Macro	3
	ECO 2020	Principles of Economics-Micro	3
	EDS 3200	Educational Psychology Applied to Teaching	3
	FIN 2250	Personal Money Management	3
	FRE 3560	Contemporary Socio-Cultural Issues	3
	GEG 1000	World Regional Geography	3
	GEG 1300	Introduction to Human Geography	3
	GEG 2020	Geography of Colorado	3
mc	GEG 3300/ NAS 3300/ PSC 3300	Land Use, Culture & Conflict	3
	HES 1050	Dynamics of Health	3
	HES 2000	Health Politics & Policy	3
	HES 2180	AIDS: Acquired Immune Deficiency Syndrome	3
	HIS 3660	Recent U.S., 1945-1970s	3
mc	HMT 1850	Multicultural/Multinational Cultural Adjustment/Readjustment	3
	HON 3800	Revolutions & Social Change I	3
	HON 3810	Revolutions & Social Change II	3
	HPS 2720	Fundamentals of Coaching	2
mc	HSP 3490	Multicultural Issues in Human Services	4
mc	ICS 1000	Introduction to Asian American Studies	3
mc	ICS 2100/ AAS 2100/ CHS 2100/ NAS 2100/ WMS 2100	Women of Color	3
	ITS 2810	Technology, Society & You	3
	JRN 1010	Introduction to Journalism & Mass Media	3
	LES 4730	Sociology of Athletics in American Society	3
	MKT 2040	Managerial Communications	3
mc	NAS 1000	Introduction to Native American Studies	3
mc	NAS 2100/ AAS 2100/ CHS 2100/ ICS 2100/ WMS 2100	Women of Color	3
mc	NAS 3200/PSC 3200	Native American Politics	3

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mc	NAS 3300/ GEG 3300/ PSC 3300	Land Use, Culture & Conflict	3
	PSC 1010	American National Government	3
	PSC 1020	Political Systems & Ideas	3
	PSC 2100	Political Socialization	3
mc	PSC 2200/AAS 2200	Politics & Black People	3
	PSC 3120	American Constitutional Law	3
mc	PSC 3200/NAS 3200	Native American Politics	3
mc	PSC 3300/ GEG 3300/ NAS 3300	Land Use, Culture & Conflict	3
	PSC 3630	Latin American Politics	3
	PSY 1001	Introductory Psychology	3
	PSY 1800	Developmental Educational Psychology	4
	PSY 2160	Personality & Adjustment	3
	PSY 2210	Psychology of Human Development	3
	PSY 3250	Child Psychology	3
	PSY 3260	Psychology of Adolescence	3
	SOC 1010	Introduction to Sociology	3
mc	SOC 1040	Introduction to Social Gerontology	3
	SOC 2010	Current Social Issues	3
mc	SOC 3130/CHS 3100	The Chicano Community	3
mc	SOC 3140/AAS 3300	The Black Community	3
mc	SOC 3220/WMS 3220	Race, Gender & Ethnic Groups	3
	SOC 3440/AAS 3550	The Black Family	3
	SOC 3470/CHS 3210	The Chicano Family	3
	SWK 1010	Introduction to Social Welfare & Social Work	3
	WMS 1001	Introduction: Woman in Transition	3
mc	WMS 2100/ AAS 2100/ CHS 2100/ ICS 2100/ NAS 2100	Women of Color	3
mc	WMS 3220/SOC 3220	Race, Gender & Ethnic Groups	3



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\*A one-hour deviation in the General Studies arts and letters requirement may be allowed, provided the student has completed at least 33 semester hours of General Studies courses.

**Please note: "mc" indicates that the course is also approved as a multicultural course.**

### NATURAL SCIENCE (Minimum 6 semester hours)\*

Natural Science courses provide an opportunity for students to experience the systematic formulation and testing of hypotheses and to learn the importance of accurate observation and measurement. Students will differentiate among fact, speculation, evidence, inference, belief, theory, law and generalization.

The following courses may be used to satisfy the General Studies, Multicultural and Senior Experience requirements. However, other courses may have been approved for such use after the publication of this *Catalog*. For up-to-date information, contact the Advising Center.

ANT 1010	Physical Anthropology & Prehistory	3
AST 1040/AST 1040sp	Introduction to Astronomy	3
AST 3040	Modern Cosmology	3
BIO 1000/BIO 1000sp	Human Biology for Non-Majors	3
BIO 1010/BIO 1010sp	Ecology for Non-Majors	3
BIO 1080/BIO 1080sp*	General Introduction to Biology	3
BIO 1090*	General Introduction to Biology Laboratory	1
BIO 3300	Advanced Human Biology for Non-Majors	3
BIO 3530/HES 3810	Physiology of Aging for Non-Biology Majors	3
BIO 3550	Urban Ecology	4
CHE 1010	Chemistry & Society	3
CHE 1100	Principles of Chemistry	5
CHE 1850 & either CHE 1800 or 1810**	General Chemistry I or II	6
CHE 3100	Organic Chemistry I	4
CHE 3120	Organic Chemistry I Lab	2
GEG 1100	Introduction to Physical Geography	3
GEG 1200	Introduction to Environmental Sciences	3
GEG 1400	World Resources	3
GEL 1010	General Geology	4
GEL 1020	Geology of Colorado	3
GEL 1030	Historical Geology	4
GEL 1150	Oceanography	3

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GEL 1510	Geology of Red Rocks Park & Vicinity	1
GEL 1520	Garden of the Gods-Front Range Geology	2
GEL 3510	Advanced Geology of Red Rocks Park & Vicinity	1
GEL 3520	Advanced Garden of the Gods-Front Range Geology	2
HES 2040	Introduction to Nutrition	3
HES 2150	Alternative Therapies for Health & Healing	3
HES 3450	Dynamics of Disease	3
HES 3810/BIO 3530	Physiology of Aging for Non-Biology Majors	3
HON 2800	History of Science	3
HON 2810	Development of Experimental Science	3
HPS 3300	Anatomical Kinesiology	3
HPS 3340	Physiology of Exercise	3
MET 3550	Rockets & Stars - A Space Trek	3
MTR 1400	Introduction to Meteorology	3
MTR 3500	Hazardous Weather	3
PHY 1000/PHY 1000sp	Introduction to Physics	4
PHY 1250	Physics of Aviation	6
PHY 2010/PHY 2030	College Physics I & Laboratory	5
PHY 2020/PHY 2040	College Physics II & Laboratory	5
PHY 2311/PHY 2321	General Physics I & Laboratory	5
PHY 2331/PHY 2341	General Physics II & Laboratory	5
PHY 3620	Sound & Music	3
SCI 2610	Integrated Natural Science I	3
SCI 2620	Integrated Natural Science II	3

\*In order to receive General Studies credit, both BIO 1080 and 1090 must be successfully completed.

\*\*Successful completion of CHE 1850 and either CHE 1800 or 1810 will result in 6 hours Natural Science General Studies credit. Successful completion of all three courses will result in 10 hours of General Studies credit. CHE 1800 is a prerequisite for CHE 1850. CHE 1850 has a corequisite of CHE 1810.

\*A one-hour deviation in the General Studies natural science requirement may be allowed, provided the student has completed at least 33 semester hours of General Studies courses.

**Please note: "mc" indicates that the course is also approved as a multicultural course.**

## **Additional Graduation Requirements**

### **Multicultural and Senior Experience Course Requirements**

In addition to completing the General Studies requirements, a student must complete a three-hour Multicultural course and a three-hour Senior Experience course, or selection of courses, to be awarded a bachelor's degree from MSCD. The Multicultural class does not require three hours as a separate category and can be taken in the major, minor or as an elective. The rules pertaining to those requirements and the courses that will satisfy those requirements are described below.

### **MULTICULTURAL GRADUATION REQUIREMENT (Minimum 3 semester hours)**

Multicultural courses are designed to increase students' appreciation and awareness of the American culture and the diverse cultures which contribute to it. Multicultural educational offerings examine the interactions of values and beliefs, traditions, identities and cultural contributions of women and racial and ethnic groups in the United States: African American, Asian American, Hispanic American and Native American. Students may use the course to satisfy General Studies, major or minor requirements if the course is approved for that use. If the course is used for General Studies, the Level II General Studies restrictions remain in effect, e.g., no courses with the major prefix may be used.

A one-hour deviation in the Multicultural requirement will be allowed for courses judged to be similar in content to an existing Multicultural course. Equivalency will be determined by the department offering the Multicultural course.

AAS 1010	Introduction to African American Studies	3
AAS 1130/HIS 1940	Survey of African History	3
AAS 2130/HIS 2950	West African Civilizations	3
AAS 2200/PSC 2200	Politics & Black People	3
AAS 3240/ENG 3240	African American Literature	3
AAS 3300/SOC 3140	The Black Community	3
ANT 2330	Cross-Cultural Communication	3
ANT 3310	Ethnography of North American Indians	3
ANT 3480	Cultural Diversity in Health and Illness	3
ART 3090	Art & Cultural Heritage	3
CHS 1000	Introduction to Chicano Studies	3
CHS 1010/HIS 1910	History of Meso-America: Pre-Columbian & Colonial Periods	3
CHS 1020/HIS 1920	History of the Chicano in the Southwest: 1810 to Present	3
CHS 3100/SOC 3130	The Chicano Community	3

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CHS 3200/CJC 3720	Chicanos and the Law	3
EDS 3110	Processes of Educ.in Multicultural Urban Secondary Schools	3
EDU 3100	Social Foundations and Multicultural Education	5
ENG 2240	Native American Literatures	3
GEG 3300/ NAS 3300 PSC 3300	Land Use, Culture & Conflict	3
HIS 1930/NAS 1930	History of Indigenous/Hispanic Americans	3
HIS 3090	Native Americans in American History	3
HIS 3590	American Immigration History	3
HMT 1850	Multicultural/Multinational Cultural Adjustment/Readjustment	3
HSP 3490	Multicultural Issues in Human Services	4
ICS 1000	Introduction to Asian American Studies	3
MGT 4830	Workforce Diversity	3
MUS 2020	Jazz Styles-America's Music	3
MUS 3000	Musics of America	3
MUS 3050	Musics of the World	3
NAS 1000	Introduction to Native American Studies	3
NAS 3200/PSC 3200	Native American Politics	3
PSY 3170	Multicultural Service Learning	3
SED 3000	Diversity, Disability and Education	3
SOC 1040	Introduction to Social Gerontology	3
SOC 3220/WMS 3220	Race, Gender & Ethnic Groups	3
SPE 3760	Cultural Influences on Communication	3
XXX 1190	*First Year Seminar	3
WMS 2100/ AAS 2100/ CHS 2100/ NAS 2100/ ICS 2100	Women of Color	3

\*Variable course prefixes, e.g., ANT, CJC, ENG, PSC, RDG, SOC, SPE, WMS.

### SENIOR EXPERIENCE GRADUATION REQUIREMENT (minimum 3 semester hours)

The Senior Experience course provides a culmination of the undergraduate experience, allowing students to synthesize their learning, using critical analysis and logical thinking. Students may use the course to satisfy major or minor requirements if the course is approved for that use. Students should consult with their advisor and check prerequisites. Students must complete a Senior Experience course at the end of the undergraduate

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program and must take the course or courses at MSCD. Senior Experience courses have the following minimal prerequisites: satisfaction of all Level I and Level II General Studies course requirements and senior standing. In some cases students may need to take two courses to satisfy the requirement.

ART 4010	Modern Art History: Theory & Criticism	3
ART 4750	Senior Experience Studio: Portfolio Development & Thesis Show	3
BIO 4510	Microbial Ecology	3
BIO 4540	Plant Ecology	4
BIO 4850	Evolution	3
CHE 4950	Senior Experience in Chemistry	3
CHS 4850	Research Experience - Chicano Studies	3
CJC 4650	Ethics for the Criminal Justice Professional	3
COM 4410	Budgeting & Planning for Audio-Visual Productions	3
COM 4790	Senior Seminar in Technical Communications	3
CSI 4260	Software Engineering Practices	4
ECO 4600	History of Economic Thought	3
EDS 4290	Student Teach & Seminar Secondary	6,8,12
EDU 4190	Student Teach & Seminar Elem, K-6	6,8,10,12
EDU 4380	Teaching Practicum in Preprimary Early Childhood Education	3-6
EDU 4390	Student Teaching & Seminar: Early Childhood Education	6,8,10
EDU 4690	Professional Practicum	1-6

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EET 4100	Senior Project	1
EET 4110	Senior Project II	2
ENG 4520	Advanced Writing	3
ENG 4610	Theories & Tech in Literary Criticism	3
ENG 4640	Teaching English, 7-12	3
ENG 4660	Teaching Literature & Language, K-6	3
FRE 4520	Modern French Theater	3
FRE 4530	The French Novel	3
GEG 4890	Advanced GIS Laboratory	3
GEG 4960	Global Environmental Challenges	3
GEL 4960	Environmental Field Studies	3
GER 4200	Major German Authors	3
GER 4400	German for Business II	3
GER 4410	Advanced Translation Techniques	3
HCM 4510	Health Care Management Practicum	6
HES 4520	Internship in Gerontology	3-6
HIS 4820	Senior Seminar	3
HMT 4040	Senior Hospitality Research Experience I	2
HMT 4400	Senior Hospitality Research Experience II	2

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	HPS 4600	Organization, Admin. of Human Performance & Sports Prog.	3
	HPS 4870	Internship for Athletic Training	10
	HPS 4880	Internship for Adult Fitness Major	10
	HPS 4890	Internship for Human Performance	10
	HSP 4790	Professional Internship	12
	ITS 4960	Professional Industrial Internship	4
	JRN 4500	Ethical & Legal Issues in Journalism	3
	LES 4890	Internship for Leisure Studies	12
	MET 4010	Advanced Manufacturing Technology	3
	MET 4070	Computer Aided Design	3
mc	MGT 4830	Workforce Diversity	3
	MGT 4950	Strategic Management	3
	MTH 4210	Probability Theory	4
	MTH 4220	Stochastic Processes	4
	MTH 4410	Advanced Calculus I	4
	MTH 4480	Numerical Analysis I	4
	MTH 4640	History of Mathematics	4
	MTR 4600	Senior Research Seminar	3
	MUS 4110	Analysis of Music	2

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MUS 4340	Secondary School Music Methods & Materials	2
MUS 4390	Supervised Field Experience	1
MUS 4510	Advanced Conducting	2
MUS 4740	Performance VIII	4
MUS 4790	Senior Recital	1
MUS 4950	Senior Project	3
NUR 4850	Nursing Process: Application	3
PHI 4100	Senior Seminar	3
PHY 4620	Computational Physics II	2
PHY 4721	Advanced Physics Laboratory II	2
PHY 4920	Physics Senior Seminar	1
PSC 4020	Special Studies	3
PSY 4510	History & Systems of Psychology	3
RDG 4600	Practicum in Literacy Enhancement	3
SED 4490	Special Education Student Teaching and Seminar	6-12
SOC 4600	Advanced Research in the Social Sciences	3
SOC 4710	Applied Sociology	3
SPA 4200	Spanish-American Essay: 19th & 20th Centuries	3
SPA 4310	History of the Spanish Language	3



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	SPE 4090	Classical Rhetoric	3
	SPE 4120	Freedom of Speech	3
	SPE 4490	Effects of Radio-Television on Contemporary Life	3
	SPE 4500	Clinical Methods in Communication Disorders	3
	SPE 4790	Communication Theory Building and Research Methodology	3
	SWK 4810	Professional Field Experience II	5
	THE 4200	Reader's Theatre	3
	WMS 4750	Senior Seminar	3

*mc - This course will also satisfy the Multicultural requirement.*

### Assessment Examinations and Other Activities

In their senior year, students may be required to participate in an assessment of their general education. The faculty has determined educational goals or outcomes that it wants graduates to achieve. A copy of those goals and the methods by which their achievements are measured can be obtained from the department offices.

## **ACADEMIC POLICIES AND PROCEDURES**

### **Semester Hours Credit**

Course credit is based on units designed as semester hours. One semester hour or one base contact hour equals a minimum of 750 minutes; this translates to a minimum of 15, 50-minute class hours per semester. Time required for class preparation is not a consideration in the calculation of course credit. A three-credit hour course will require six to nine hours of work each week outside of class. Omnibus courses involving laboratory work give one semester hour of credit for each two, three or four hours of scheduled work in the laboratory during a week. Internships require a minimum of 2,250 minutes for each hour of credit.

### **Course Load**

The average course load per 16-week semester is 15 or 16 semester hours. Students who are academically strong may take up to 18 semester hours during fall and spring semesters and up to 12 semester hours during the summer semester. During fall and spring semesters, students with cumulative MSCD grade point averages (GPAs) of 3.25 or higher may take 19 or 20 semester hours and those students with GPAs of 3.50 or higher may take 21 semester hours for fall and spring semester or 14 semester hours for the summer semester. Students must have completed at least 15 semester hours at MSCD. Authorization for overloads for students without these qualifications must be obtained from

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the student's major department chair and appropriate dean. Forms are available in the department or deans' offices.

### **Student Classification**

Students are classified according to the number of semester hours of credit earned: freshmen fewer than 30; sophomores 30 or more, but fewer than 60; juniors 60 or more, but fewer than 90; seniors 90 or more.

### **Selection of Catalog for Requirements**

Students must use a single MSCD catalog to meet all their degree requirements, including the General Studies, major and minor requirements. Students must select a Catalog in effect while they are enrolled at MSCD unless they are transferring from a regionally accredited Colorado community college, provided that the Catalog contains their complete program of study. Students not enrolling for three consecutive semesters or more are governed by the Catalog in effect upon their return. For effective dates of Catalogs, students should consult their academic advisors. All degree programs must adhere to overriding current policies at MSCD.

Students transferring from a regionally accredited Colorado community college may complete degree requirements using an MSCD Catalog in effect while enrolled at the community college, subject to the following conditions:

- The Catalog selected does not predate the current catalog by more than three years.
- The Catalog selected may have been in use at any time from the time the student was continually enrolled\* at a regionally accredited Colorado community college to the semester for which the student is enrolling in MSCD.

\*Continuous enrollment is defined as not interrupting enrollment for three or more consecutive semesters (one calendar year); summer is counted as a semester. Continuous enrollment must be maintained from the period of the designated MSCD Catalog to the point of MSCD degree completion.

### **Declaring a Major**

Applicants to The Metropolitan State College of Denver may indicate their intended major on the MSCD Application for Admission. Non-degree-seeking students who wish to declare a major must first change to degree-seeking status by completing a Change of Status form with the Registrar's Office.

### **Changing a Major**

Degree-seeking students who wish to change a major must complete a Declaration/Change of Major form, which is available from the major department or from the Academic Advising Center.

### **Graduation**

Degree-seeking students formally declare their degree candidacy by filing an Application for Graduation with the Office of the Registrar just prior to their anticipated semester of graduation, but no later than the deadline stipulated in the *Class Schedule*. The Application for Graduation should be filed only by students who intend to complete all degree requirements by the end of the upcoming semester and should be filed in consultation with the student's major department. If a student does not graduate, they must re-submit another Application for Graduation for the semester they intend to graduate.

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### **Diplomas and Commencement**

Students who have met all requirements for graduation are granted diplomas at the end of the semester for which they are degree candidates. Diplomas may be withheld because of indebtedness to the college. Completion of two majors does not result in two degrees or diplomas. A formal commencement ceremony is held at the end of the spring and fall semesters. For commencement information, call 303-556-6226.

### **Transcripts of Records**

An official transcript is a certified copy of a student's permanent academic record. Except for faxed transcripts, there is no charge. Transcripts will be released by the Registrar's Office upon formal written request by the student. Transcripts will also be issued to firms and employers if written authorization is received from the student. Requests should include the student's full legal name as recorded while attending MSCD, student identification number, last term of attendance, number of copies desired, and to whom and where transcripts are to be sent. Transcripts may be withheld because of indebtedness to the college or for other appropriate reasons. Transcripts from other institutions that are on file in the Registrar's Office will be issued upon signed request by the student. A charge of \$5 per request is assessed for this service. Students from other institutions taking MSCD courses under the state college system or interinstitutional registration programs must request transcripts from their home institution.

### **Honors and Awards**

The college annually recognizes students who show outstanding leadership and service to the college and community, excellence in scholastic achievement, and outstanding personal character and integrity. Recognition of students includes:

The President's Award (one senior); the Special Service Award for Academic Affairs (one senior) and for Student Services (one senior); Outstanding Student Awards (seniors from each school); Who's Who Among Students in American Universities and Colleges (seniors); American Association of University Women (AAUW) Award (senior woman). Other awards include Special Service Award for Exceptionally Challenged Students, Student Government Assembly Award, Charles W. Fisher Award and the Colorado Engineering Council Award.

Information and applications for these awards are available in Central Classroom Building, room 313. Awards are presented at the annual banquet the night before graduation.

In addition to annual awards, students with outstanding academic achievements are recognized by being named on the college's Honor Lists. The President's Honor List carries the names of students who, at the time of computation, have achieved a cumulative GPA of 3.85 or higher. The Provost's Honor List carries the names of students who, at the time of computation, have achieved a cumulative GPA of between 3.50 and 3.84, inclusively. Computation will occur initially when the student has completed between 30 and 60 hours at MSCD, then again between 60 and 90 hours, and finally after more than 90 hours. Posting of the award occurs after the student receives his/her semester grade report. Questions should be directed to the Office of Academic Affairs at 303-556-3907.

Graduation honors are awarded to students who have demonstrated superior academic ability in their baccalaureate degree while attending MSCD. Honors designations are determined according to the following criteria:

- Summa Cum Laude Top five percent of graduates within each school with cumulative MSCD GPA of no less than 3.65.

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- Magna Cum Laude Next five percent of graduates within each school with cumulative MSCD GPA of no less than 3.65.
- Cum Laude Next five percent of graduates within each school with cumulative MSCD GPA of no less than 3.65.
- **To determine each honor's category, GPAs for the previous spring semester graduates are arrayed in rank order. This rank ordering is then used to determine the honors recipients among the following fall, spring and summer graduates.**
- **To qualify for graduation honor recognition, a student must have completed a minimum of 50 semester hours of classroom credit at MSCD prior to the term of graduation.**
- **Courses completed during the term of graduation and transfer credits are not considered when determining honors.**

Honors designations are added to the student's official academic record; no other notification will be sent. For additional information regarding graduation honors, contact the Office of Academic Affairs at 303-556-3907.

## Grades and Notations

### Grades

Alphabetical grades and status symbols are as follows:

- A - Superior 4 quality points per semester hour attempted
- B - Above Average 3 quality points per semester hour attempted
- C - Average 2 quality points per semester hour attempted
- D - Below Average but Passing 1 quality point per semester hour attempted
- F - Failure 0 quality points per semester hour attempted

### Notations

AP - Advanced Placement

CC - Continuing Correspondence Course

CL - CLEP

EX - Credit by Exam

I- Incomplete

NC - No Credit

NR - Not Reported. No grade was reported by the faculty by the deadline to submit grades. Student must see faculty for an explanation or assignment of grade. Courses taken through interinstitutional registration are normally assigned the "NR" notation until grades are received and posted to the academic record. Students who receive a "NR" notation on their final grade report may be severely impacted. Financial aid, employment status, veterans' status and probation/suspension depend on students receiving all their grades.

P - Pass

PL - Portfolio Assessment

PP - PEP Exam

S - Satisfactory (limited to student teaching and HPS/LES 4870/4880/4890 internships)

SA - Study Abroad - credit

SN - Study Abroad - no credit

The "I" notation may be assigned when a student who has attended the majority of the class sessions was unable to take the final examination and/or did not complete all class assignments due to unusual circumstances (such as hospitalization). Incomplete work denoted by the Incomplete "I" notation must be completed within one calendar year or earlier, at the discretion of the faculty member. If the incomplete work is not completed

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within one calendar year, the "I" notation will change to an "F." Graduating seniors may not graduate with an "I" on their MSCD academic record. The "I" notation may not be given for a self-paced course. Students must not re-enroll for the class in which they receive an "I." The "I" is not a substitute for a "NC" or an "F."

The No Credit (NC) notation is not a grade. It may indicate withdrawal from the course or course repetition. The "NC" notation may also be used in self-paced courses to indicate that the student and/or the faculty have decided to extend the student's exposure to the course to increase the student's proficiency. In this case, to earn credit the student must re-register for and pay tuition and fees for the course in a subsequent term. (The NC should not be confused with "dropping" a course during the first 12 days of the fall or spring term [8 for the summer term]. Dropping a course means that the course does not appear on the student's academic record.)

The following minimal standards are required throughout the college and are a part of all school, departmental or individual faculty policies. The standards are for full 15-week terms. Pro-rated time lines are available for other parts-of-term as well as the summer semester.

- The "NC" notation is available to students in all instances through the fourth week of classes for fall and spring terms.
- Students reducing their course load between the beginning of the fifth and the end of the tenth week of classes during fall and spring semesters may receive an "NC" notation for each course, provided faculty approval is granted.
- Additional restrictions regarding assigning the "NC" notation may be set by each school, department, and/or faculty member for the period between the beginning of the fifth and the end of the tenth week of the semester (or proportional time frame).
- Student requests for an "NC" notation in a given course will not be granted after the tenth week of the fall and spring semesters. The "I" notation may be used during this period, provided the conditions specified above, under the "I" notation, apply.
- Proportional time frames are applied for part-of-term courses, weekend courses, workshops and summer terms.
- A written policy statement describing the use of the "NC" notation will be given to each student for each class in which the student enrolls.

Students are expected to attend all sessions of courses for which they are registered. Each instructor determines when a student's absences have reached a point at which they jeopardize the student's success in a course. When absences become excessive, the student may receive a failing grade for the course.

### Quality Points

The number of quality points awarded for a course is determined by multiplying the number of semester hours for that course by the quality point value of the grade received. The cumulative GPA is calculated by dividing the total by the number of semester hours attempted.

To be eligible for a degree, a candidate must have a minimum number of quality points equal to twice the number of semester hours attempted in addition to meeting other prescribed requirements. The following notations have no effect on the GPA: AP, CC, CL, EX, I, NC, NR, P, PL, PP, S, SA, SN.

### Pass-Fail Option

The pass-fail option encourages students to broaden their educational experience by taking

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courses outside their major and minor fields. The pass notation has no effect on the GPA; the fail notation is equivalent to the grade of "F."

Students who have completed at least one MSCD course with at least a 2.0 cumulative GPA may choose to be evaluated for a certain course on a pass-fail basis rather than by letter grade. The pass-fail option may be used for general elective credit only. Major, minor, General Studies and other courses required for a degree or for teacher licensure, may not be taken on a pass-fail basis. Self-paced courses may not be taken under the pass-fail option. Maximum graduation credit for these pass-fail courses is 18 semester hours, earned in no more than six courses, limited to one course per semester or module.

Students must declare interest in the pass-fail option no later than the 12th day of classes for fall and spring, the eighth day of classes for summer or the second day of classes for parts-of-term of any semester (see the current *Class Schedule* for specific deadlines) by contacting the Office of the Registrar.

The instructor will assign and record the pass-fail grade on a final grade list that identifies students electing and eligible for pass-fail grading. Students who request the option who are later declared ineligible will receive notification from the Registrar's Office during the semester. They will be assigned a regular letter grade in the course. Once approved, the request for the pass-fail option is irrevocable.

Some institutions do not accept credits for courses in which a pass notation is given. Therefore, students who plan to transfer or take graduate work should determine whether the institution of their choice will accept the credit before registering for courses under the pass-fail option.

### Repeated Courses (Last Grade Stands)

A student may repeat any course taken at MSCD regardless of the original grade earned. Only the credit and the grade for the last attempt of the course will remain on the student's official academic record. The grade(s) for the prior attempt(s) will be changed to the "NC" notation. The courses must carry the same title, course number and semester hours. To effect such a change, the student must reregister and pay tuition for the course in question, complete the course with a letter grade and complete the *Last Grade Stands* form in the Registrar's Office. Otherwise, the grade change will be made administratively at the time of degree evaluation. Credit duplication involving transfer, interinstitutional or state college system courses may result in transfer credit being disallowed (see number four below). A failing course grade assigned as a result of academic dishonesty is considered a permanent "F" and is not subject to this policy. A student may not repeat a course after the award of a MSCD degree to make use of this policy.

1. In all cases except for grades assigned for academic dishonesty, the grades of all but the last entry of the particular course will be changed to a "NC" (no credit) notation. The NC notation does not affect the credit total and grade point average.
2. The determination of course equivalency will be made by the Office of the Registrar.
3. If the student does not request that the previous grade(s) of a course be changed to a "NC" after the course is repeated, the changes will be made at the time of graduation evaluation.
4. The same policy is applied when a course taken at another institution and transferred to MSCD is later repeated at MSCD. The transferred credit is then revoked.
5. An exception to this policy occurs when a student takes a course at MSCD, then repeats the course at another institution and returns to or is still in attendance at MSCD. In this case, since the course is not repeated on the MSCD records, the MSCD

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course will not be changed to a "NC," but rather, the transfer credit will be disallowed.

6. The last grade stands policy applies only to MSCD courses. Courses taken under the interinstitutional/consortium or "pooled" programs do not qualify for consideration under this policy. However, this policy does apply to a UCD course if repeated through the MSCD/UCD pooled program.
7. Courses repeated prior to the summer quarter of 1971 are not affected by this last grade stands policy. A grade in a course taken prior to the summer quarter, 1971 and repeated after summer 1971 may be changed to a "NC" notation.

## Student Grade Appeal Procedure

If students have reason to question the validity of a grade received in a course, they must make their request for a change before the end of the second week of the semester following the completion of the course (the following fall semester in the case of the spring semester). The Grade Appeal Guidelines can be obtained from the students' respective deans. It is the responsibility of the student to initiate a grade appeal within the time limit, and to follow the procedures specified for grade appeals in the Student Rights and Responsibilities section of the current *Student Handbook*. The handbook may be obtained from the Office of Student Services. All decisions of the Grade Appeal Committee will be reviewed by the associate vice president for academic affairs.

## Warning/Probation/Suspension Policy

### Academic Satisfactory Progress/Good Standing

A student is deemed to be making satisfactory progress toward his or her academic goal if the student maintains a cumulative GPA of 2.0 or higher. This student is deemed to be in **academic good standing** with the institution. However, other academic standards may apply to specific programs. A student must satisfy those other academic standards in order to be deemed in academic good standing with that program. See information on the program of interest to determine specific standards for that program.

### Academic Warning Status

A student in good standing whose cumulative GPA falls below 2.0 will be on **academic warning status** with the institution during his or her next semester. A student will be removed from this warning status and returned to good standing if he or she achieves a cumulative GPA of at least 2.0 at the end of his or her semester on warning status. More restrictive standards may apply to certain programs or schools. See information on the program of interest.

### Academic Probation

A student who fails to achieve a cumulative GPA of at least 2.0 at the end of his or her semester on warning status will be put on **academic probation** with the institution during his or her next semester at MSCD. A student will be on academic probation as long as he or she has a cumulative GPA below 2.0, but is making progress toward good standing as explained below and has not been on academic probation for more than three semesters. Other conditions may apply to given programs or schools. See information on the program of interest.

A student is removed from academic probation and is in good standing the semester after achieving a cumulative GPA of at least 2.0.

During any semester that a student is on academic probation, the student must make progress toward good standing with the institution by taking all of the following actions:

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- achieve a semester GPA of 2.2 or higher
- register and complete a minimum of 3 but no more than 12 semester hours (3 to 6 semester hours for summer semester)
- take required activities as negotiated with the director of Student Intervention Services (may include certain classes, repeated courses, tutoring or other activities)

While on academic probation, a student may pre-register for the first semester following the academic warning status semester, but is prohibited from pre-registering any other semester. For subsequent academic probation status semesters, a GPA of at least 2.2 must be verified prior to registration.

### Academic Suspension

A student on academic probation not making progress toward good standing will be prohibited from registering for one calendar year from the date of suspension. Appeal of suspension for this reason will be submitted to the director of Student Intervention Services. The director of Student Intervention Services will then deliver the appeal materials to the Student Academic Review Committee, which will review the appeal and notify the student of its decision. A student may appeal a suspension only two times in his or her academic career at the college.

A student making progress toward good standing, whose cumulative GPA remains below a 2.0 after three or more semesters on probation, will have his or her academic progress reviewed each semester by the Student Academic Review Committee. The committee will determine whether the student should be placed on suspension. In both cases, the decision of the Student Academic Review Committee is final.

Any student returning to the college after the one-calendar-year suspension must reapply and will be re-admitted on academic probation with the institution. For these students, all probation rules outlined above will apply.

**A student who is suspended for a second time will be re-admitted only if he or she has successfully completed an associate degree program from a community college after suspension from MSCD or can demonstrate to the Student Academic Review Committee that chances for successful completion of an educational program are greatly improved.**

Contact Student Intervention Services at 303-556-4048 for further information.

## **STUDENT RIGHTS AND RESPONSIBILITIES**

### Policies and Procedures

Generally, the policies and procedures contained in this *Catalog* must be followed by students officially enrolling for the 2000 fall semester and the 2001 spring and summer semesters.

The procedures and/or policies contained in this section are subject to change as the College deems necessary. If you have a problem, please check with the appropriate office to confirm the policies and/or procedures you need to follow.

### Exceptions (B.A.S.E.)

Students may appeal to the Board of Academic Standards Exceptions (B.A.S.E.) to request a variance from college academic requirements. Valid reasons for variances must accompany



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all petitions, and the petitions must be signed by the appropriate dean and department chair. For more information, contact the Office of Academic Affairs.

### **Academic Honesty**

Students have a responsibility to maintain standards of academic ethics and honesty. Cases of cheating or plagiarism are handled within the policies of Academic Affairs in accordance with procedures outlined in the *MSCD Student Handbook*.

### **Conduct of Students**

MSCD policy provides students the largest degree of freedom consistent with good work and orderly conduct. The *Student Handbook* contains standards of conduct to which students are expected to adhere. Information regarding students' rights and responsibilities, including the student due process procedure (the procedural rights provided to students at MSCD before disciplinary action is imposed) is available in Central Classroom Building, room 313.

### **Respect for Rights of Others**

The student assumes certain obligations of performance and behavior while attending. Based on this premise, reasonable policies, procedures and regulations have been developed to guarantee each student's opportunity to learn and to protect the fundamental rights of others, students neither gain nor lose any of the rights and responsibilities of other citizens by virtue of their student status.

As members of an academic community, students are expected to conduct themselves in a mature and responsible manner. Students should try at all times to promote a sense of cooperation and civility within the College and work to build an atmosphere which will be most conducive to the goals of higher education within the institution.

Students, while within College facilities or while participating in Collegesponsored activities (on-campus and/or off-campus), are expected to comply with College rules and regulations and with the regulations of offcampus sites.

### **Freedom of Speech**

Students shall have the right to assemble, to select speakers and guests, and to discuss issues of their choice. An invitation to a speaker shall not imply endorsement of the speaker's views by either the student organization or the College.

Information about student views, beliefs and political associations shall not be used to the detriment of students and their institutional standing.

The right of peaceful protest is granted within the College community. The College retains the right to assure the safety of individuals, the protection of property, and the continuity of the educational process.

The student press shall be free of censorship and shall provide editorial freedom. The editors and managers shall not be arbitrarily suspended because of student, faculty, administration, alumni, or community disapproval of editorial policy or content.

All student communications shall explicitly state on the editorial page or in broadcast that the opinions expressed are not necessarily those of the College and/or members of the College.

### **Academic Rights**

Students have the right to:

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1. be informed of course expectations and requirements.
2. be evaluated fairly on the basis of academic performance.
3. participate in free and open discussion, inquiry, and expression, both in the classroom and in conference.
4. receive competent instruction and advisement.
5. expect protection against professors' improper disclosure of students' personal information, views, beliefs, and political associations when such information has become known as a result of professors' instructions, advisement or counsel.
6. expect protection, through established procedures, against prejudicial or capricious evaluation.
7. assess the value of a course to make suggestions as to its direction and to evaluate both the instructor and the instruction they have received.
8. have input in College policy-making, which may include, but shall not be limited to, course scheduling distribution of night and day classes, calendar arrangements, library policy and development, grading systems, course development, and curriculum.
9. expect instructors to conduct themselves professionally in the classroom in accordance with College policies and directives.
10. expect instructors to maintain office hours as required by College policy.
11. expect reasonable academic assistance from the appropriate department.
12. be informed of academic standards expected of them in the classroom through a printed syllabus and course outline. Academic standards shall include, but not be limited to, class attendance requirements, objectives to be achieved, and the grading criteria that will be applied to a particular course of study.

### **Academic Responsibilities**

Students have the responsibility to:

1. inquire about course or degree requirements if they do not understand them or are in doubt about them.
2. maintain the standards of academic performance established for individual courses and for programs of study.
3. learn the content of any course of study.
4. act in accordance with commonly accepted standards of academic conduct. If disruptive behavior occurs in a classroom, an instructor has authority to ask the student to leave the classroom. Should such disorderly or disruptive conduct persist, the instructor should report the matter to Auraria Campus Police and/or the appropriate Dean's office.
5. maintain academic ethics and academic honesty.
6. pay the tuition and fees and be officially registered in order to attend a class.
7. initiate an investigation by contacting the department chair if they believe their academic rights have been violated.

### **Academic Dishonesty**

Academic dishonesty is a serious offense at the College because it diminishes the quality of scholarship and the learning experience for everyone on campus. An act of academic dishonesty may lead to such penalties as reduction of grade, probation, suspension, or expulsion. Examples of academic dishonesty include:

**Cheating:** The term "cheating" includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests or examinations; (2) dependence upon the aid or sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty, staff, or other students.

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**Fabrication**: Intentional and unauthorized falsification or invention of any information, data, or citation in an academic exercise.

**Facilitating Academic Dishonesty**: Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

**Plagiarism**: The term "plagiarism" includes, but is not limited to, the use by paraphrase or direct quotations, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency that may or may not be engaged in the selling of term papers or other academic materials.

### Procedures

Academic dishonesty may result in institutional sanctions. Institutional sanctions, however, do not limit the individual faculty member's academic freedom and the right to maintain academic integrity in the learning environment by assigning a grade or grade notation for an assignment, exercise, test, and for the course.

In all cases of academic dishonesty, the instructor shall make an initial academic judgment about the student's grade on that work in that course and shall report such incidents within fifteen (15) working days to the student and to the judicial officer responsible for the administration of the College judicial system. The judicial officer has the discretion to consult with the faculty member and the Office of Academic Affairs to determine whether or not institutional sanctions should be invoked. In addition to institutional sanctions listed in the college judicial policies, a failing course grade assigned as a result of academic dishonesty is considered a permanent "F" and is not subject to the College's "Last Grade Stands" policy unless it is altered pursuant to the College grade appeal procedures.

College judicial policies pertaining to academic dishonesty are part of the Student Conduct Code published below. Members of the faculty have the right and responsibility, when they report acts of academic dishonesty to the College judicial officer, to file charges against such student(s) and ask that institutional sanctions be applied. At his or her discretion, the judicial officer may recommend and impose sanctions in any reported case of academic misconduct against a student.

Should institutional sanctions be recommended in cases of academic dishonesty, the judicial officer shall check with the Office of Academic Affairs to determine if the student has any record of prior offenses involving academic misconduct. Students accused of academic dishonesty have the right, under the judicial policies of the Student Conduct Code, to request a hearing to consider the charges made against them.

### Student Conduct Code

The code is not intended to replace existing procedures related to:

- discrimination or sexual harassment
- grade appeals
- requests for exceptions to academic policies
- appeals for tuition and fee reduction
- disputes relative to financial-aid awards
- instate tuition classification

For any other matters that are not included above, contact the Office of Student Life. It is a resource for accurate information and advocacy on behalf of the students of the College.

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Student Life personnel can advise and assist students with unusual circumstances, or with problems not addressed in the *Student Handbook* or *College Catalog*.

### Article I: Definitions

1. The term "College" means The Metropolitan State College of Denver.
2. The term "student" includes all persons taking courses at the College, both full-time and part time, pursuing undergraduate or professional studies.
3. The term "faculty member" means any person hired by the College to conduct classroom activities.
4. The term "College official" includes any person employed by the College performing assigned administrative, or professional responsibilities.
5. The term "member of the College" includes any person who is a student, faculty member, College official, or any other person employed by the College.
6. The term "College or campus premises" includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the Auraria Higher Education Center including the adjacent streets and sidewalks, and also includes extended campus locations.
7. The term "organization" means any number of persons who have complied with the formal requirements for College recognition.
8. The title of "judicial officer" is that person designated by the College President to be responsible for the administration of the Student Conduct Code.
9. The term "judicial advisor" means a College official authorized on a case by case basis by the judicial officer to impose sanctions upon students found to have violated the Student Conduct Code. The judicial officer may authorize a judicial advisor to serve simultaneously as a judicial advisor and the sole member or one of the members of a judicial body. Nothing shall prevent the judicial officer from authorizing the same judicial advisor to impose sanctions in all cases.
10. The term "judicial body" means any person or persons authorized and identified by the Dean of Student Life to determine whether a student has violated the Student Conduct Code and to recommend imposition of sanctions.
11. The term "shall" is used in the imperative sense.
12. The term "may" is used in the permissive sense.
13. The term "policy" is defined as the written regulations of the College as found in, but not limited to, the Student Conduct Code, Students Rights and Responsibilities Handbook, catalogs, and class schedules.
14. The term "cheating" includes, but is not limited to:
  - a. use of any unauthorized assistance in taking quizzes, tests, or examinations;
  - b. dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or
  - c. the acquisition, without permission, of tests or other academic materials belonging to a member of the College faculty, staff, or other students.
15. The term "fabrication" is the intentional and unauthorized falsification or invention of any information, data, or citation in an academic exercise.
16. "Facilitating academic dishonesty" means intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.
17. The term "plagiarism" includes, but is not limited to, the use by paraphrase or direct quotations, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency that may or may not be engaged in the selling of term papers or other academic materials.
18. The term "working days" refers to the number of days specified for each step of the

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procedure and does not include Saturdays, Sundays, holidays, or days when the College is not in session and holding classes.

### **Article II: Judicial Authority**

1. The judicial officer shall determine the composition of judicial bodies and determine which judicial body or judicial advisor shall be authorized to hear each case.
2. The judicial officer shall appoint a chair to the judicial body for each case.
3. The judicial officer may develop policies for the administration of the judicial program and procedural rules for the conduct of hearings that are not inconsistent with provisions of the Student Conduct Code.
4. Decisions made by a judicial body and/or judicial advisor shall be final, pending the normal appeal process.
5. The judicial officer may extend time limits for good cause demonstrated in writing.

### **Article III: Proscribed Conduct**

#### **A. Jurisdiction of the College**

Generally, College jurisdiction and discipline shall be limited to conduct which occurs on the Auraria Higher Education Center premises, while a student is participating in college-sponsored activities, or which adversely affects the College community and/or the pursuit of its objectives.

#### **B. Conduct-Rules and Regulations**

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:

1. Acts of dishonesty including but not limited to, the following:
  - a. cheating, plagiarism, or other forms of academic dishonesty;
  - b. furnishing false information to any College official, faculty member, or office;
  - c. forgery, alteration, or misuse of a College document, record, or instrument of identification;
  - d. tampering with the election of any College recognized student organization; or
  - e. assisting anyone in the commission of any acts stated above.
2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other College activities including its public relations functions on or off campus or other authorized nonCollege activities when the act occurs on College premises.
3. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or other conduct which threatens or endangers the health or safety of any person.
4. Attempted or actual theft of and/or damage to property of the College or property of a member of the College community or AHEC or other personal or public property.
5. 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. Hazing can be further defined as any action that produces physical discomfort, embarrassment, harassment, or ridicule.

Activities including the following are defined as hazing and are strictly forbidden:

- a. paddling
- b. causing excessive fatigue
- c. physical shock

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- d. morally degrading/humiliating game
- e. public stunts
- f. activities which interfere with academic work/success
- g. dangerous, offensive behavior
- h. activities which interfere with the policies and regulations of the Office of Student Activities, UCD, CCD, or AHEC
- i. activities that engage in discrimination, whether racial or gender based
- j. stranding pledges far from campus, "roadtripping"
- k. forced calisthenics
- l. forced consumption of food, beverages, or alcohol
- m. exposure to extreme weather conditions

Engaging in such activities may result in the withdrawal of College recognition, and thus privileges and services, by the Office of Student Activities. Questions concerning this policy should be referred to the Director of Student Activities.

- 6. Failure to comply with directions of College officials or the Auraria Campus Police acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
- 7. Unauthorized possession, duplication, or use of keys to any campus premises, or unauthorized entry to, or use of, campus premises.
- 8. Violation of published College policies, rules, or regulations.
- 9. Violation of federal, state, or local law on College premises or at College-sponsored or supervised activities.
- 10. Use, possession, or distribution of narcotics or other controlled substances except as expressly permitted by law.
- 11. Use, possession, or distribution of alcoholic beverages except as expressly permitted by the law and College regulation, or public intoxication.
- 12. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on College premises.
- 13. Participation in campus demonstrations which disrupt the normal operations of the College (or other parts of the campus) or infringe on the rights of other members of the Campus community; leading or inciting others to disrupt schedules and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement on campus, either pedestrian or vehicular.
- 14. Obstruction of the free flow of pedestrian or vehicular traffic on College premises or at College sponsored or supervised functions.
- 15. Abetting or procuring another person to breach the peace on College premises or at functions sponsored by or participated in by the College.
- 16. Any activity involving computing facilities which knowingly interferes with someone else's academic freedom or the institution's goals or policies.
- 17. Abuse of the judicial system including, but not limited to:
  - a. failure to obey the summons of a judicial body or College 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 to, 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 Conduct Code

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

18. Intentionally obstructing or delaying a police officer, fire fighter, security officer, or College official in performance of his/her duty.

19. Turning in a false bomb alarm or fire alarm or misusing fire safety equipment.

20. Leaving children unattended or unsupervised on campus grounds. This can constitute child abuse or child neglect (as outlined in the State of Colorado Child Protection Act of 1975). Children may be permitted in the classroom with the instructor's permission and the understanding that the child's presence is not disruptive.

21. Influencing or attempting to influence the academic process through explicit or implied sexual behavior, bribery, or threats.

22. Failing to comply with contractual obligations with the College.

23. Furnishing false information or academic credentials with the intent to deceive or mislead when applying for admission to the College or for any of its programs and services.

### **Violation of Law and Student Code of Conduct**

Students who exhibit unusual and/or unacceptable forms of behavior on campus premises can be requested to leave by Auraria Campus Police. In addition to or in lieu of that, faculty members may refer students to the Counseling Center. The Dean of Student Life may administratively withdraw students exhibiting severe behavioral problems.

College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Conduct Code. For example, if both violations result from the same factual situation without regard to the pendency of civil litigation in court or criminal arrest and prosecution, proceedings under this Student Conduct Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus.

### **Judicial Process**

See Article IV in the Student Handbook or the Dean of Student Life for complete information.

### **Sexual Harassment**

Sexual harassment is a form of discrimination based on sex. It is prohibited by law and College policy. In the educational context, sexual harassment is defined as any unwelcome sexual advance, request for sexual favors, or other verbal or physical conduct of a sexual nature when:

- a. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's status in a course, program, activity, or educational evaluation
- b. submission to or rejection of such conduct is used as the basis for educational decisions affecting that individual
- c. such conduct has the purpose or effect of unreasonably interfering with an individual's academic performance or educational experience, or of creating an intimidating, hostile, or offensive educational environment

Charges of sexual harassment can be based on a wide variety of behaviors, such as repeated derogatory sexual remarks, negotiation for sexual favors as a quid pro quo for grades or recommendations, or threatened or actual sexual assault. These and similar behaviors seriously undermine the teaching and learning environment and can be grounds for disciplinary action. Sexual harassment should be reported to the Office of Equal

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Opportunity at (303)556-2939. Sexual assaults should be reported to the Auraria Campus Police at (303)556-3271.

Written policies addressing these issues in greater detail are available from the Office of Equal Opportunity and Affirmative Action in Central Classroom (CN) 315 or call (303)556-2939.

### **Amorous Relationships Involving Student and College Employees**

College policy strongly discourages employees of the College from becoming involved in relationships of a romantic nature with students they supervise, either in a faculty-student or supervisor-subordinate situation. If such relationships exist, they must be disclosed to the College and the conflicts of interest that result must be avoided. For example, an instructor is not allowed to issue a grade to someone with whom s/he is involved in an amorous relationship, and a supervisor can not hire or evaluate someone s/he is dating. Because of the professional difficulties associated with amorous relationships, faculty and staff should avoid them entirely.

Students are strongly discouraged from seeking relationships of a romantic nature with College faculty or staff. Also, students who persist in making unwelcome sexual advances to a faculty member or college employee risk violation of College policy prohibiting sexual harassment.

### **Class Attendance**

Attendance during the first week of class is required. It contributes greatly to teaching and learning. Some departments determine a student's enrollment in a course based upon attendance during the first week of class. Consult the *Class Schedule* and the department for more information about the attendance policy for the class that you are attending. Students who drop classes are financially responsible for those classes in accordance with the withdrawal/refund policies stated in the *Class Schedule* each semester.

Students are expected to attend all sessions of courses for which they are registered. Each instructor determines when a student's absences have reached a point at which they jeopardize success in a course. When absences become excessive, the student may receive a failing grade for the course. If students anticipate a prolonged absence, they should contact their instructors. If they find that they cannot communicate with the instructor, they should contact the chair of that department, who will inform the instructor of the reasons for the anticipated absence. Whenever an instructor determines that a student's absences are interfering with academic progress, the instructor may submit a letter to the department chair informing that office of the situation.

Students at MSCD who, because of their sincerely held religious beliefs, are unable to attend classes, take examinations, participate in graded activities or submit graded assignments on particular days shall, without penalty, be excused from such classes and be given a meaningful opportunity to make up such examinations and graded activities or assignments provided that proper notice and procedures are followed. The policies and procedures designed to excuse class attendance on religious holidays are covered in the Student Rights and Responsibilities section of the MSCD *Student Handbook*.

### **Final Examinations**

It is the general policy of the college to require final examinations of all students in all courses in which they are registered for credit, with the possible exception of seminar courses or special projects.



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### **Equal Opportunity and Americans with Disabilities Act**

The Metropolitan State College of Denver is an equal opportunity employer; applications from minorities and women are particularly invited. The Metropolitan State College of Denver does not discriminate on the basis of race, color, creed, national origin, sex, age, sexual orientation or disability in admissions or access to, or treatment or employment in, its educational programs or activities. Inquiries concerning the college grievance procedures may be directed to the designated MSCD officials. Inquiries concerning Title VI and Title IX may be referred to Dr. Percy Morehouse, Jr., MSCD Office of Equal Opportunity, Campus Box 63, P.O. Box 173362, Denver, CO 80217-3362, 303-556-2939. Inquiries concerning the Americans with Disabilities Act (ADA) or 504 may be referred to Ms. Helen Fleming, Faculty and Staff ADA Coordinator, MSCD, Campus Box 47, P.O. Box 173362, Denver, CO 80217-3362, 303-556-8514; Mr. Kelly Espinoza, Student ADA Coordinator, MSCD, Campus Box 23, P.O. Box 173362, Denver, CO 80217-3362, 303-556-3908; Mr. Dick Feuerborn, ADA Coordinator, AHEC, Campus Box 001, P.O. Box 173361, Denver, CO 80217-3361, 303-556-8376; or Ms. Karen Rosenchein, Manager. Otherwise, all inquiries may be referred to the Office for Civil Rights, U.S. Department of Education, 1244 Speer Boulevard, Denver, CO 80204, 303-844-3723.

### **Family Educational Rights and Privacy Act**

#### **Student Rights**

The Metropolitan State College of Denver maintains educational records for each student who has enrolled at the college. A copy of the college's policy on student educational records may be obtained from the Office of the Registrar, Central Classroom Building, room 105. Under the Family Educational Rights and Privacy Act of 1974 (FERPA), 20 USC 1232g, and the implementing regulations published at 34 CFR part 99, each eligible student has the right to:

1. Inspect and review his/her educational records;
2. Request the amendment of the student's education records to ensure that they are not inaccurate, misleading or otherwise in violation of the student's privacy or other rights;
3. Consent to disclosures of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent (see Nondisclosure and Exceptions); and
4. File a complaint under 34 CFR 99.64, concerning alleged failures by the college to comply with the requirements of FERPA, with the Family Compliance Office, U.S. Department of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202-4605.

#### **Procedure for Inspecting and Reviewing Educational Records**

Students may inspect and review their education records upon a written request submitted to the Registrar, Central Classroom, Room 105, or by mail to Campus Box 84, P.O. Box 173362, Denver, Colorado 80217-3362.

- A. The request shall identify as precisely as possible the record or records the student wishes to inspect.
- B. The record custodian or an appropriate staff person shall make the arrangements for access as promptly as possible and notify the student of the time and place where the records may be inspected. Access must be given in 45 days or less from the receipt of the request.
- C. When a record contains information about more than one student, the student may inspect and review only the records which relate to that student.

#### **Procedure for Amending Educational Records**

A student may make a written request to amend a record.

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1. In the request, the student should identify the part of the record to be changed and specify why the student believes it is inaccurate, misleading, or in violation of the student's privacy or other rights.
2. The Metropolitan State College of Denver shall comply with the request or notify the student that the college will not comply with the request and advise the student of the student's right to a hearing to challenge the information believed to be inaccurate, misleading or in violation of the student's rights.
3. Upon written request, The Metropolitan State College of Denver will arrange for a hearing, and notify the student, reasonably in advance, of the date, place and time of the hearing.
4. The hearing will be conducted by a hearing officer who is a disinterested party, but who may be an official of the institution. The student shall be afforded a full and fair opportunity to present evidence relevant to the issues raised in the original request to amend the student's education records. The student may be assisted by one or more individuals, including an attorney.
5. The Metropolitan State College of Denver will prepare a written decision based solely on the evidence presented at the hearing. The decision will include a summary of the evidence presented and the reasons for the decision.
6. If The Metropolitan State College of Denver decides that the challenged information is not inaccurate, misleading or in violation of the student's right of privacy or other right, it will notify the student that the student has a right to place in the record a statement commenting on the challenged information and/or a statement setting forth reasons for disagreeing with the decision.
7. The statement will be maintained as part of the student's education records as long as the contested portion is maintained. If The Metropolitan State College of Denver decides that the information is inaccurate, misleading or in violation of the student's rights, it will amend the record and notify the student, in writing, that the record has been amended.

### **Nondisclosure and Exceptions**

Pursuant to FERPA, the college will not disclose a student's education records without the written consent of the student except to college officials with legitimate educational interests, to officials at other institutions in which the student seeks to enroll, in connection with providing financial aid to the student, to accrediting agencies in carrying out their functions, to federal, state or local authorities auditing or evaluating the college's compliance with education programs, to consultants conducting studies on behalf of the college, in compliance with a judicial order or subpoena, and in connection with a health or safety emergency involving the student. However, the college may release directory information without the prior written consent of the student unless within ten (10) calendar days after the first scheduled class day of each term, an enrolled student has notified the college's Office of the Registrar in writing that any or all types of directory information shall not be disclosed without the consent of the student. A request for nondisclosure will remain in effect until the student is no longer enrolled or cancels the request for nondisclosure.

A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position; or a person elected to the Board of Trustees; or a person employed by or under contract to the college to perform a special task, such as attorney, auditor or consultant; or a student or other person serving on an official college committee or assisting a school official in performing the official's professional duties and responsibilities. A legitimate educational interest is the need of a school official to review educational records in order to fulfill that official's professional duties and responsibilities.

### **Directory Information**

The Metropolitan State College of Denver has designated the following categories of

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personally identifiable information on students as directory information under section 438(a)(5)(B) of FERPA:

- name, address and telephone number
- e-mail address
- date and place of birth
- student classification
- major and minor fields of study
- participation in officially recognized activities and sports
- weight and height of members of athletic teams
- dates of attendance at the college
- degrees and awards received
- last educational institution attended

## The Student Right-to-Know Act and the Campus Security Act Campus Crime Information

During 1997, 1998 and 1999, the following crimes were committed on campus at the Auraria Higher Education Center, serving the University of Colorado at Denver, The Metropolitan State College of Denver and the Community College of Denver:

### Reported Criminal Offenses on Campus

Offense	1999	1998	1997
Murder	0	0	0
Sex Offenses: Forcible	1 (1)	1(1)	0
Sex offenses: Non-Forcible	0	0	0
Robbery	2(2)	0	4
Aggravated Assault	2	7	3
Burglary	11	6	13
Vehicle Theft	13	16	31
Hate Crimes	0	2(3)	0
Arson	3	2	1
Manslaughter	0	0	0

### Reported Criminal Offenses at Satellite Campuses (\*3)

Offense	1999	1998	1997
Burglary	4	6	2
Vehicle Theft	2	2	0
Arson	0	0	1

### Number of Arrests for the Following Crimes on Campus

Offense	1999	1998	1997
Liquor Law Violations (4)	3	0(5)	12
Drug Abuse Violations	47	41	36

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Weapons Possession	2	6(6)	14
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*(1)forcible fondling*

*(2)one offense, two victims; business and individual*

*(3)one offense, two victims; ethnic intimidation*

*(4)excludes DUI arrests*

*(5)zero reported for 1998 to avoid double reporting in conjunction with drug abuse violation arrests*

*(6)includes arrests made for more serious offenses that involved use of a weapon*

*(7)information provided to Auraria Campus Police and Security by the Denver police*

## **School of Business**

The School of Business offers students a variety of educational opportunities that either lead to a bachelor's degree or provide opportunities for non-degree seeking students to gain additional undergraduate education through our extensive course offerings and certificate programs. The school offers two degrees in six majors:

### **Bachelor of Science Degree Programs**

- [Accounting](#)
- [Computer Information Systems](#)
- [Finance](#)
- [Management](#)
- [Marketing](#)

### **Bachelor of Arts Degree Program**

- [Economics](#)

In addition, we offer an international business concentration for business majors and a total of eight minors designed primarily for non-business majors.

The school provides convenient access to instruction through traditional classroom sessions and innovative online delivery, at both the main Auraria campus and Metro South campus, during the day, evenings and weekends. The school consists of 67 full-time faculty, more than 50 part-time faculty and 11 full-time staff. Over 2800 students major in business and economics. Students can take advantage of on-the-job training through cooperative education placements, internships and independent study coursework. The school's mission statement reflects our efforts to provide students with the best possible education we can offer:

The School of Business at The Metropolitan State College of Denver delivers high quality, accessible undergraduate business education in the metropolitan Denver area appropriate to a diverse student population and modified open admission standards. We prepare students for careers, graduate education and lifelong learning in a society characterized by technological advancements and globalization.

The primary purpose of the School of Business is the pursuit of excellence in teaching and learning. We nurture learning through individual attention to students. The faculty of the School of Business engages in professional development activities that enhance instruction and contribute to scholarship and applied research. Our faculty provide service to the institution, the professions and the community at large.

The various educational opportunities available through the School of Business are listed below. Each program is described in detail in the remainder of this catalog section. Course descriptions and prerequisites are found beginning on page 227 of this *Catalog*.

### **Bachelor of Science Degree**

[Accounting](#)  
[Computer Information Systems](#)  
[Finance](#)  
[Management](#)  
[Marketing](#)

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### **Bachelor of Arts Degree**

#### **[Economics](#)**

### **Emphasis Area for Business Majors**

#### **[International Business](#)**

### **Minors**

#### **[Accounting](#)**

#### **[Computer Information Systems](#)**

#### **[Economics](#)**

#### **[Finance](#)**

#### **[General Business](#)**

#### **[International Business](#)**

#### **[Management](#)**

#### **[Marketing](#)**

#### **[Real Estate](#)**

### **Certificate Programs for Credit**

#### **[Database Analyst](#)**

#### **[Network Specialist in Information Systems](#)**

#### **[Personal Financial Planning](#)**

#### **[Programmer/Analyst in Information Systems](#)**

#### **[Real Estate](#)**

#### **[User Support Specialist](#)**

### **Non-Credit Certificates**

#### **[Financial Planning](#)**

#### **[International Trade](#)**

### **Other Program Offerings**

#### **[Business Outreach](#)**

#### **[Small Business Institute](#)**

#### **[US WEST Center for Business Success](#)**

If you have any questions about the offerings, academic policies and practices, or admission requirements, contact the dean of the School of Business or the chair of the appropriate department.

### **Mailing Address**

Dean's Office

School of Business

Metropolitan State College of Denver

Campus Box 13

P.O. Box 173362

Denver, CO 80217-3362

MSCD website: [www.mscd.edu](http://www.mscd.edu)

### **Important Telephone Numbers**

Dean's Office: 303-556-3245

Accounting: 303-556-3181

Computer Information Systems: 303-556-3122

Economics: 303-556-3217

Finance: 303-556-3776

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Management: 303-556-3247

Marketing: 303-556-3182

Business Outreach: 303-592-5364

### **Business Outreach and World Trade Center Educational Services**

Business Outreach provides public classes and customized in-house training on a variety of practical business topics. Concentrations include personal financial planning, introduction to securities markets, specialized software applications and union leadership. A full program of "hands-on" international business classes is offered through the World Trade Center Educational Services. Contact the Business Outreach office for additional information.

### **Small Business Institute**

The Small Business Institute offers a practical opportunity that supplements academic studies with real case studies. The Small Business Institute employs senior-level students, under faculty supervision, to provide business counseling and technical assistance to small business clients in the community. Contact the Finance Department for additional information.

### **US WEST Center for Business Success**

The US WEST Center for Business Success serves as a problem-solving resource for businesses in the region while providing hands-on learning opportunities for business students. Junior and senior-level business majors will be selected to participate in the center based on their academic records, work experience and demonstrated leadership potential. Contact the School of Business dean's office for information.

### **School of Business Prerequisite and Attendance Policy**

All School of Business students are expected to know and fulfill all prerequisite requirements. The School of Business reserves the right to disenroll students who do not meet prerequisite requirements or who fail to meet expected course attendance policies.

### **Bachelor of Science Degree Programs**

Students may earn a bachelor of science degree in accounting, computer information systems, finance, management or marketing. The learning objectives of the business program provide students with the opportunity to:

1. obtain, understand and apply information from the liberal arts, sciences, business and discipline-specific courses to organizational issues and situations.
2. explain how ethical, legal, political, regulatory, social, global, environmental and technological issues influence business decisions.
3. analyze a business problem by incorporating diverse perspectives.
4. apply foundation business knowledge and skills to develop competent decisions in the areas of accounting, economics, finance, information systems, management and marketing.
5. communicate effectively the problem alternatives considered, a recommended solution, and an implementation strategy in oral, written and electronic form.
6. demonstrate knowledge and skills to meet career needs.
7. exhibit an appreciation for extra-curricular activities and continuous, life-long learning.

The degree requires completion of coursework in general studies, the core business disciplines, a major, and electives. A minor is not required.

### **Admission and Academic Status Requirements**

Students may declare a business major at any time by contacting the dean's office or a department faculty advisor and completing the "Major Declaration Form." Students are

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encouraged to declare as early as possible to ensure accurate advising on business program requirements.

Prior to enrolling in an upper-division business course, declared business majors must have:

- a cumulative GPA of at least 2.00;
- completed all Level I and II General Studies requirements for business;
- completed all lower-division courses in the business core; and
- completed at least 60 credit hours overall (junior standing).

Business majors will be placed on academic warning if their GPA falls below 2.0. If the GPA remains below 2.0 after one semester on probation, students will be dropped as business majors.

### Business Program Residency Requirements

For all bachelor of science degrees in the School of Business, at least 50 percent of the business credit hours received for the business degree must be earned in residence at MSCD.

To earn a Bachelor's degree in business, a student must successfully complete 30 or more credit hours of business coursework at MSCD. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CMS, FIN, MGT and MKT except ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, and FIN 2250. A student must complete at least eight (8) upper-division semester hours in the major at MSCD.

### Business Degree Program Planning

Some important things to remember as you plan your business studies:

- All degree-seeking students must meet the college's requirements for all bachelor's degrees outlined in the general information section of this *Catalog*.
- During the first 60 credit hours, business majors should complete their General Studies Levels I and II courses and the 2000-level business core courses.
- The college requires at least 40 credit hours of upper-division courses (3000 or 4000 level). Consult with an advisor to ensure that your specific degree program meets this requirement.
- If a student pursuing a degree other than a bachelor of science from the School of Business wishes to enroll in business courses beyond 30 hours, the student must declare a major with the School of Business. The 30 hours excludes up to 9 credit hours in economics and the following courses: ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, or FIN 2250.
- A minor is not required for students whose major is accounting, computer information systems, finance, management or marketing.
- ACC 1010, CMS 1010, and FIN 2250 may not be applied to the 120 hours required for a bachelor of science degree in the School of Business.

### Bachelor of Science Degree Program Requirements

All candidates for a bachelor of science degree in accounting, computer information systems, finance, management and marketing must satisfy the general studies requirements and business core course requirements described in the following two sections. For programs leading to a bachelor of science, the basic structure of each program is:



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General Studies (Level I and Level II) .....	43
Business Core .....	33
Major in School of Business .....	24
Electives*.....	20
<i>Total Hours (minimum) .....</i>	<i>120</i>

*\* The School of Business requires 20 credit hours of electives, no more than 9 of which may be business electives.*

### General Studies

The academic foundation for a successful business career or graduate work is a broad liberal arts education. The college requires 33 credit hours of General Studies. The School of Business requires 10 additional specific hours of General Studies (ECO 2010, ECO 2020, and four hours of mathematics), for a total of 43 credit hours.

General Studies Required by the School of Business .....Semester Hours

### General Studies Level I

#### Composition

ENG 1010 Freshman Composition: The Essay .....	3
ENG 1020 Freshman Composition: Analysis, Research and Documentation..	3

### Mathematics

MTH 1310* Finite Mathematics for the Management and Social Sciences .	4
MTH 1320 Calculus for the Management and Social Sciences .....	3

### Communications

SPE 1010 Public Speaking.....	3
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*\*Note: MTH 1110 or MTH 1400, with graphing calculator experience strongly recommended, is acceptable for transfer students or students changing their major. Consult with Mathematical and Computer Sciences department on substitutions.*

### General Studies Level II

#### Historical Studies

HIS ____ (American history course recommended) .....	3
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### Arts and Letters

PHI 1030 Ethics	
-or-	
PHI 3360 Business Ethics.....	3
____ (Check General Studies guide for Level II Arts and Letters elective) ....	3

### Social Sciences

ECO 2010 Principles of Economics-Macro .....	3
ECO 2020 Principles of Economics-Micro .....	3
PSY 1001 Introductory Psychology	
-or-	
SOC 1010 Introduction to Sociology.....	3
PSC 1010 American National Government	
-or-	
PSC 1020 Political Systems and Ideas.....	3

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### Natural Sciences

_____	(Check General Studies guide for Level II Natural Sciences elective) ....	3
_____	(Check General Studies guide for Level II Natural Sciences elective) ....	3
<i>Total of Required and Elective General Studies Credit Hours .....</i>		<b>43</b>

### Business Core

All business majors require foundation coursework in all significant areas of business theory and practice. The following courses are required for all majors in accounting, computer information systems, finance, management and marketing.

Required Courses.....	Semester Hours
ACC 2010 Principles of Accounting I.....	3
ACC 2020 Principles of Accounting II.....	3
CMS 2010 Computer Applications for Business.....	3
CMS 2300 Business Statistics.....	3
MKT 2040 Managerial Communications.....	3
MGT 2210 Legal Environment of Business I.....	3
MGT 3000 Organizational Management.....	3
MKT 3000 Principles of Marketing.....	3
FIN 3300 Managerial Finance.....	3
CMS 3340 Advanced Business Statistics.....	3
MGT 4950 Strategic Management.....	3
<i>Total Hours Required in Business Core.....</i>	<b>33</b>

The following sections describe the scope of the degree program, course requirements, career opportunities, and competencies for career success in each degree program.

### Accounting Degree Program

The accounting program prepares students for entry into careers in public accounting, industry, tax and the government sector, as well as graduate education and lifelong learning. The field of accounting is moving rapidly toward a greater emphasis in the areas of information systems, management consulting and organizational change. Accountants can obtain a variety of professional certifications, including certified public accountant, certified internal auditor, certified fraud examiner, certified information systems auditor and certified management accountant. Each professional certification program includes rigorous education, examination, experience and ethics requirements.

#### Mission Statement:

The Accounting Department at MSCD provides high quality, accessible, enriching undergraduate accounting education in an urban setting appropriate to a diverse student population enrolled under modified open admission standards. We prepare students for careers, graduate education, and lifelong learning in a global and technological society. The department is committed to ethical values, continuous improvement and mutual respect within a diverse campus community.

The Accounting Department pursues excellence in teaching and learning as its primary purpose. Intellectual contributions in accounting and related fields that enhance teaching and learning and contribute to scholarship through both applied research and other avenues of professional development are secondary though fundamental to the mission of the Accounting Department. Service to MSCD, the accounting profession, and the community and society in general is also secondary albeit fundamental to the mission of the Accounting Department.

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Successful accounting students possess these skills and attributes:

- ability to organize, analyze, and interpret numerical data;
- strategic and critical thinking skills;
- proficiency in oral and written communications with ability to explain complex financial data to others;
- ability to apply current technology;
- knowledge of financial and economic history, practices, and trends;
- ability to work collaboratively as well as independently;
- understanding of the methods for creating, leading, and managing change in organizations.

### Accounting Major for Bachelor of Science\*

Required Courses	Semester Hours
ACC 3090 Income Tax I	3
ACC 3300 Introduction to Accounting Systems	3
ACC 3400 Cost Accounting	3
ACC 3510 Intermediate Accounting I	3
ACC 3520 Intermediate Accounting II	3
<i>Subtotal</i>	<i>15</i>

Plus 9 hours from the following courses including at least one 4000 level course:

ACC 3100 Income Tax II	3
ACC 3110 Volunteer Income Tax Assistance (VITA)	3
ACC 3200 Governmental Accounting	3
ACC 3410 Cost Accounting II	3
ACC 4090 Tax Procedure and Research	3
ACC 4100 Tax Planning	3
ACC 4200 Auditing	3
ACC 4300 Advanced Auditing	3
ACC 4510 Advanced Accounting	3
ACC 4520 Mergers and Acquisitions	3
<i>Total Hours Required for Accounting Major</i>	<i>24</i>

*\*Students must have a minimum of 90 hours of non-accounting coursework for the bachelor's degree.*

To earn a Bachelor's degree in accounting, a student must successfully complete 30 or more credit hours of business coursework at MSCD. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CMS, FIN, MGT and MKT except ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, and FIN 2250. A student must complete at least eight (8) upper-division semester hours in the major at MSCD.

Students should consult an accounting faculty advisor to develop an appropriate academic program. A wide variety of internship opportunities are available through the Cooperative Education Office.

## Computer Information Systems Degree Program

With a degree in the rapidly expanding area of information systems in the business world, students can look forward to challenging careers in computer information systems or using their computer information systems knowledge within any other area of business.

## 2000-2001 College Catalog

### Mission Statement:

The Computer Information Systems Department delivers high quality, accessible undergraduate business information systems education to a diverse student population. We prepare students to analyze, design, develop and use business applications utilizing contemporary technology. We provide a balance between fundamental information systems concepts and the application of these concepts from a future-oriented perspective.

The Computer Information Systems Department provides undergraduate major, minor and professional preparation programs in information systems. We offer service courses in information systems and business statistics to School of Business students, and applied computer courses to students college-wide.

The Computer Information Systems Department faculty pursues excellence in teaching and learning as its primary purpose. We nurture learning through individual attention to students. The faculty aggressively engages in professional development activity that enhances instruction and contributes to scholarship and applied research. We provide service to the institution, the profession and the community at large.

Students majoring in computer information systems are encouraged to select advanced courses that best meet their needs in specific areas, such as systems analysis, design, and development; programming; data base management; data communications and networks; or management of information systems. Advising for these areas is available from the department chair and individual faculty members.

Skills related to computer information systems include:

- ability to think logically, thoroughly, and concentrate intensely
- sound detail orientation and organizational skills
- ability to work well under pressure
- capacity to work well independently and as part of a team
- capability to analyze problems and make appropriate decisions
- proficiency in precise analytical reasoning
- aptitude to master new computer languages and methodologies
- sensitivity to multiple perspectives
- curiosity and enthusiasm

### Major for Bachelor of Science

#### Required Courses.....Semester Hours

CMS 2110 Business Problem Solving: A Structured Programming Approach.....3

CMS 3060 File Design and Data Base Management .....3

CMS 3230 Telecommunications Systems .....3

#### Programming Language Group

(includes CMS 3110, CMS 3130, CMS 3145, CMS 3180, CMS 3190, and CMS 3260) .....3

CMS 4050 Systems Analysis and Design .....3

#### Computer Information Systems Capstone Group

(includes CMS 4060, CMS 4070, CMS 4280 and CMS 4410) .....3

Upper-division CMS Electives .....6

*Total Hours Required for CMS Major .....24*

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To earn a Bachelor's degree in computer information systems, a student must successfully complete 30 or more credit hours of business coursework at MSCD. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CMS, FIN, MGT and MKT except ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, and FIN 2250. A student must complete at least eight (8) upper-division semester hours in the major at MSCD.

### Certificate Programs Available:

#### NETWORK SPECIALIST IN INFORMATION SYSTEMS

This certificate will prepare a student for an entry-level position in network support, network administration, network design, and network sales.

CMS 3220 Analysis of Hardware, Software and User Interfaces for Microcomputer Platforms ..3	
CMS 3230 Telecommunication Systems .....	3
CMS 3280 LAN and WAN Systems for Business .....	3
CMS 3290 Micro User Operating Systems .....	3
CMS 4280 Network Installation and Administration .....	3

#### PROGRAMMER/ANALYST IN INFORMATION SYSTEMS

This certificate will prepare a student for an entry-level position as a business application programmer, programmer/analyst, or junior systems analyst.

CMS 2010 Computer Applicatio.....	3
CMS 2110 Business Problem Solving: A Structured Programming Approach .....	3
CMS 3050 Fundamentals of Systems Analysis and Design .....	3
CMS 3130 Business Applications in C and UNIX .....	3
CMS 3260 Systems Development with GUI Development Tools.....	3

#### DATABASE ANALYST

This certificate will prepare a student for an entry-level position as a database programmer or database analyst.

CMS 2010 Computer Applications for Business .....	3
CMS 2110 Business Problem Solving: A Structured Programming Approach .....	3
CMS 3050 Fundamentals of Systems Analysis and Design .....	3
CMS 3060 File Design and Database Management .....	3
CMS 4060 Advanced Database Systems .....	3

#### USER SUPPORT SPECIALIST

This certificate will prepare a student for an entry-level position as a help desk/support center specialist. It will also prepare an end-user to become the departmental hardware/software expert.

CMS 1080 The World Wide Web, the Internet and Beyond .....	3
CMS 2010 Computer Applications for Business .....	3
CMS 3220 Analysis of Hardware, Software and User Interfaces for Microcomputer Platforms...3	
CMS 3270 Micro Based Software .....	3
CMS 3290 Micro User Operating Systems .....	3

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### **Economics Degree Program**

MSCD's economics program is not a business program and economics majors do not have the same requirements as other majors in the School of Business. For example, economics majors do not need to take the business core nor the special General Studies required of business majors. Graduates will receive a bachelors of arts degree instead of a bachelor of science degree. Consequently, the economics major requirements are not described in this section but can be found on page 89 of this *Catalog*. ([Economics](#))

### **Finance Degree Program**

The finance program prepares students for careers that concentrate on the process of managing the funds of individuals, businesses and governments. Career opportunities are available in the fields of managerial finance and the financial services industry. The field of managerial finance deals with managing the financial affairs of businesses and governments and includes such activities as budgeting, financial forecasting, cash management, credit administration, investment analysis and funds management. Careers in the financial services industry include positions in banks, savings and loans, other financial institutions, brokerage firms, insurance companies and real estate. The most dramatic increase in career opportunities is in personal financial planning, where professionals are needed to provide advice to consumers on the management of their personal financial affairs.

The pursuit of excellence in teaching and learning is foremost in the mission statement of the Department of Finance.

#### **Mission Statement:**

The Finance Department of the School of Business at Metropolitan State College of Denver delivers high quality, accessible undergraduate business and personal finance education in the metropolitan Denver area appropriate to a diverse student population and modified open admission standards. We prepare students for careers, graduate education and lifelong learning in a society characterized by technological advancements and globalization.

The primary purpose of the Finance Department is the pursuit of excellence in teaching and learning. We nurture learning through individual attention to students. The faculty of the Finance Department engages in professional development activities that enhance instruction and contribute to scholarship and applied research. Our faculty provide service to the institution, the professions and the community at large.

The Finance Department is a Certified Financial Planner (CFP) Board Registered Program. Students successfully completing the required financial planning courses are eligible to take the national certified financial planner examination.

Success in the field of finance is related to these skills:

- ability to organize, analyze and interpret numerical data
- sound decision-making abilities
- aptitude for accurate detail
- proficiency in oral and written communications with ability to explain complex financial transactions and data to others
- knowledge of economics and accounting in addition to finance

### **Finance Major for Bachelor of Science**

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Required Courses .....	Semester Hours
FIN 3010 Financial Markets and Institutions .....	3
FIN 3600 Investments .....	3
FIN 3850 Intermediate Finance .....	3
FIN 4950 Financial Strategies and Policies .....	3
<i>Subtotal</i> .....	12
Approved Electives* .....	12
<i>Total Hours Required for Finance Major**</i> .....	24

*\*Upper-division finance electives (six must be 4000-level) selected in consultation with and approved by the Finance Department.*

*\*\*A minimum grade of "C" is required for courses in the major.*

To earn a Bachelor's degree in finance, a student must successfully complete 30 or more credit hours of business coursework at MSCD. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CMS, FIN, MGT and MKT except ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, and FIN 2250. A student must complete at least eight (8) upper-division semester hours in the major at MSCD.

### Certificate Programs Available:

#### PERSONAL FINANCIAL PLANNING

ACC 3090 Income Tax I .....	3
FIN 3150 Personal Financial Planning (optional) .....	3
FIN 3600 Investments .....	3
FIN 3420 Principles of Insurance .....	3
FIN 3450 Retirement Planning and Employee Benefits .....	3
FIN 4400 Estate Planning .....	3

Successful completion of these courses also meets the Certified Financial Board of Standards education requirement to become a CFP. For prerequisites and more information call the Finance Department, 303-556-3776.

#### REAL ESTATE

FIN 3800 Real Estate Practice and Law* .....	3
FIN 3810 Advanced Real Estate Practice and Law** .....	3
FIN 3830 Applications in Real Estate Practice** .....	3
FIN 4840 Real Estate Appraisal .....	3
FIN 4850 Commercial and Investment Real Estate .....	3

\* Meets Colorado Real Estate Commission Requirements for salesperson license.

\*\* Meets Colorado Real Estate Commission Requirements for broker license.

For prerequisites and more information call the Finance Department, 303-556-6998.

#### Noncredit FINANCIAL PLANNING

FPI Financial Planning Fundamentals
FPII Understanding Risk and Insurance
FPIII Investment Alternatives
FPIV Effective Tax Planning

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FPV Retirement Planning and Employee Benefits  
FPVI Estate Planning

Approved by Certified Financial Planning Board of Standards/Approved by Colorado Insurance Commission for Continuing Education Credit

For prerequisites and more information call Business Outreach, 303-592-5362.

### **Noncredit INTERNATIONAL TRADE**

CIT 1000 Introduction to World Trade  
CIT 2000 Developing an International Business Strategy  
CIT 2100 Export Marketing and Promotion  
CIT 2200 Cross-Cultural Communications  
CIT 2300 Export Finance and Payment Methods  
CIT 2400 Business Law for International Trade  
CIT 2500 Importing Decisions  
CIT 2800 International Transportation and Logistics

For prerequisites and more information call Business Outreach, 303-592-5362.

## **Management Degree Program**

The management program prepares students to pursue a career in human resource management, operations management, entrepreneurship or general management. Effective managers are necessary for organizations to compete in today's global economy. The program consists of required courses that build a conceptual foundation for identifying and solving managerial problems. In addition to acquiring knowledge about business and management, students will develop special skills that are necessary to be an effective manager.

The commitment of the Department of Management is voiced in its mission statement:

Our mission is to provide our diverse body of students with a high quality management and business law education. We believe that teaching and learning in a context of inquisitive, mutually respectful interaction between faculty and students is essential. Through such facilitated interaction, students develop the knowledge and skills necessary for the process of professional management in a competitive world.

We will direct our individual and joint research efforts in relevant areas of applications of management/legal theory, instructional techniques and the continuous improvement of course content. The faculty recognizes the importance of providing service to our stakeholders.

Necessary skills the manager should have include:

- proficiency in planning, organizing, leading and controlling activities
- utilization of problem solving methodology to identify and define organizational problems, devise solutions and implement the solution to achieve desired outcomes
- highly developed interpersonal skills
- an ability to communicate clearly and persuasively
- use of sound methods for making decisions
- innovative thinking, self-reliance, creative independent analysis and sensitivity to social and ethical values



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### Management Major for Bachelor of Science

Required Courses .....	Semester Hours
MGT 3020 Fundamentals of Entrepreneurship .....	3
MGT 3220 Legal Environment of Business II .....	3
MGT 3530 Human Resources Management .....	3
MGT 3550 Manufacturing and Service Management .....	3
MGT 3820 International Business .....	3
MGT 4530 Organizational Behavior .....	3
<i>Subtotal</i> .....	18

Plus 6 hours from the following courses:

MGT 3210 Commercial and Corporate Law .....	3
MGT 4000 Management Decision Analysis .....	3
MGT 4020 Entrepreneurial Creativity .....	3
MGT 4050 Purchasing and Contract Management .....	3
MGT 4420 Entrepreneurial Business Planning .....	3
MGT 4550 Project Management .....	3
MGT 4610 Labor/Employee Relations .....	3
MGT 4620 Appraisal and Compensation .....	3
MGT 4640 Employee Training and Development .....	3
MGT 4650 Managing Productivity .....	3
MGT 4830 Workforce Diversity .....	3
<i>Total Elective Hours</i> .....	6
<i>Total Hours Required for Management Major</i> .....	24

To earn a Bachelor's degree in management, a student must successfully complete 30 or more credit hours of business coursework at MSCD. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CMS, FIN, MGT and MKT except ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, and FIN 2250. A student must complete at least eight (8) upper-division semester hours in the major at MSCD.

## Marketing Degree Program

The marketing program prepares students for career opportunities in such dynamic areas as sales management, distribution, advertising, marketing research, retailing and marketing management.

### Mission statement:

**Students** - Strive to give our students a first rate education in marketing and business communication (that compares favorably to other business programs in the U.S.). To enhance their respect for and excitement for learning that is consistent with the objectives of the School of Business and The Metropolitan State College of Denver.

**Research/Publication** - Maintain a research/publication record that is consistent with curricular needs, technological advancements and meets the challenges of globalization while allowing us to contribute to the knowledge-base of our discipline.

**Service** - Actively participate in various School of Business and MSCD committee activities, regional and national professional organizations and provide our services and expertise to the Denver and regional business community.

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In addition to the department's well-rounded selection of courses, the curriculum offers students a combination of conceptual and applied learning experiences. Through the development of marketing plans, advertising campaigns and marketing research studies, students have the opportunity to work with Denver-area businesses on current marketing issues and problems. Students are also exposed to a variety of marketing speakers from the business community. Internship positions are available for marketing students through the Cooperative Education Office.

Marketing careers are challenging and rewarding in a field requiring an in-depth knowledge of products, services and modern information technology. Marketing is a people-oriented profession encompassing both for-profit companies and non-profit organizations. Since today's competition is creating a greater demand for marketing and promotional efforts, the growth rate of the field is expected to increase into the new millennium. People who are successful in marketing are creative, highly motivated, flexible and decisive. They also possess the ability to communicate persuasively both in speaking and writing.

### Marketing Major for Bachelor of Science

Required Courses .....	Semester Hours
MKT 3010 Marketing Research .....	3
MKT 3310 Consumer Behavior .....	3
MKT 3710 International Marketing .....	3
MKT 4560 Marketing Strategy .....	3
Marketing Electives* .....	12
<i>Total Hours Required for Marketing Major .....</i>	<i>24</i>

*\*Business communication courses can be used as business electives, but not as marketing electives.*

To earn a Bachelor's degree in marketing, a student must successfully complete 30 or more credit hours of business coursework at MSCD. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CMS, FIN, MGT and MKT except ACC 1010, CMS 1010, CMS 2300, CMS 3300, CMS 3320, CMS 3340, and FIN 2250. A student must complete at least eight (8) upper-division semester hours in the major at MSCD.

### International Business Concentration for business majors only

Students majoring in accounting, computer information systems, finance, management or marketing may elect to complete an International Business Concentration (IBC). The concentration provides students the opportunity to expand their knowledge of the rapidly changing global business, legal and cultural environment. Graduates with an IBE increase their career choices and will be better prepared to help area businesses compete in an increasingly international market place.

In addition to the major degree program requirements, the concentration includes 18-22 hours in international courses: a 12 hour core and six hours of approved international electives. Some students pursuing an IBE may need more than 120 semester hours of credit to graduate. Interested students should seek an advisor in their major department or dean's office as early in their degree program as possible. Each department has a semester-by-semester planning guide available to assist students in course choices and sequencing.

### International Business Concentration

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Required Core .....	Semester Hours
MGT 3820 International Business .....	3
ECO 3550 The International Economy .....	3
MKT 3710 International Marketing .....	3
FIN 3100 International Money and Finance* .....	3
<i>Total Required course hours .....</i>	<i>12</i>

Plus 6 hours from the following courses .....	Semester Hours
ECO 4450 International Trade and Finance .....	3
FIN 4100 International Financial Management .....	3
ANT 1310 Introduction to Cultural Anthropology .....	3
ANT 2330 Cross-Cultural Communication <sup>(1)</sup> .....	3
ANT 3300 Exploring World Cultures <sup>(2)</sup> .....	3
GEG 1000 World Regional Geography .....	3
HIS 2010 Contemporary World History .....	3
HIS 3350 Countries/Regions of the World .....	3
PSC 3030 Introduction to International Relations .....	3
PSC 3320 International Law <sup>(3)</sup> .....	3
PSC 3600 Comparative Politics Area Studies .....	3
Internship/Directed Study <sup>(4)</sup> .....	3
<i>Total semester hours .....</i>	<i>6</i>

-or-

One full academic year of study of any one foreign language<sup>(5)</sup>..6-10  
Total credit hours .....18-22

*\*The Finance Department recommends that students take this course after they have completed ECO 3550 and MGT 3820.*

*<sup>(1)</sup>fulfills the multicultural requirement*

*<sup>(2)</sup>prerequisite: ANT 1310*

*<sup>(3)</sup>prerequisite: PSC 3030*

*<sup>(4)</sup>three hours maximum and must have significant academic/directed study component and meet all approved School of Business guidelines for internships.*

*<sup>(5)</sup>Foreign language competency gained through other than college credit will be assessed by the Brigham Young University Competency and Placement Examination (CAPE). Contact the assessment/testing center for further details, 303-556-3677.*

## Bachelor of Arts Economics Degree Program

The Department of Economics is a non-business degree program housed in the School of Business offering a traditional bachelors of arts degree. Economics is the scientific study of the allocation of scarce or limited resources among competing uses. The study of economics provides specialized and general knowledge of the operation of economic systems and institutions. The bachelor of arts degree program gives students a fundamental knowledge of domestic and foreign economies and the quantitative tools necessary for independent analytical research and thought. Specialized courses develop the student's ability to apply the tools of economic theory and analysis to a broad range of social, political, and economic issues. Such training is essential for graduates who wish to qualify for positions as professional economists and provides an excellent background for students interested in law school or graduate programs in economics, finance or business.

## 2000-2001 College Catalog

### Our mission statement reflects our commitment.

The Department of Economics at The Metropolitan State College of Denver delivers a high-quality, accessible bachelor of arts program in economics while also providing significant service to the college, the School of Business, and the community by providing accessible and quality general studies courses in the principles of microeconomics and macroeconomics. We prepare students for lifelong learning in a complex free civil society; for graduate or professional education in economics, business and legal studies or the law; and for careers in a broad range of private and public activities.

The Department of Economics pursues excellence in teaching and learning as its primary purpose. The faculty of the department engages in scholarly activity that contributes to the literature in applied and basic economic research and other professional activity that enhances quality instruction.

While most positions as a professional economist require graduate training, for someone with a bachelor's degree employment opportunities are available in national and international business; federal, state and local government; and various nonprofit organizations. In the field of economics, the following competencies are useful:

- ability to precisely examine, analyze, and interpret data
- sound decision-making abilities
- proficiency in oral and written communications
- knowledge of economic theory, history, practices and trends
- ability to operate and use information derived from computers
- knowledge of statistical procedures
- interest in economic and political trends

### Economics Major for Bachelor of Arts

Required Courses .....	Semester Hours
ECO 2010 Principle of Economics - Macro.....	3
ECO 2020 Principle of Economics - Micro .....	3
ECO 3010 Intermediate Microeconomic Theory .....	3
ECO 3020 Intermediate Macroeconomic Theory .....	3
ECO 3150 Econometrics .....	3
ECO 4600 History of Economic Thought (Senior Experience) .....	3
<i>Subtotal</i> .....	18
Approved Electives (upper division economics courses) .....	18
<i>Total Hours of Economics required for Economics Major</i> .....	36

Additional requirements:

MTH 1320 Calculus for the Management and Social Sciences .....	3
or	
MTH 1410 Calculus I .....	4
<i>(recommended for students interested in graduate work in economics)</i>	
<i>Subtotal</i> .....	39-40
Selected Minor (minimum) .....	18
General Studies (minimum) .....	33
Multicultural requirement* .....	3
Electives .....	26-27
<i>Total Hours Required for Bachelor of Arts in Economics</i> .....	120

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*\*Check with an advisor in the Department of Economics regarding electives and the multicultural requirement.*

### Minors in the School of Business

The School of Business offers nine minors in business and economics. Most minors require 18 credit hours plus prerequisites, if any. These minors (with the exception of economics) are designed primarily for non-business majors. A student may not take more than 30 credit hours in the School of Business without declaring a business major. The acceptance of transfer credits will be governed by standards and policies of the School of Business and its departments.

Students should choose a minor that will help them in their chosen career. The general business minor should be declared after consultation with the associate dean. Other minors should be declared with the help of a faculty advisor or department chair of the appropriate department.

#### Accounting Minor

The accounting minor offers students a broad-based education in accounting, emphasizing a particular field within this discipline, such as financial accounting, managerial accounting, tax accounting, or governmental accounting.

The Accounting Department requires 60 credit hours (junior standing) before taking upper-division accounting courses. At least 12 hours of accounting courses in the minor must be completed in residency at MSCD.

Required Courses .....	Semester Hours
ACC 2010 Principles of Accounting I.....	3
ACC 2020 Principles of Accounting II .....	3
ACC 3090 Income Tax I .....	3
ACC 3510 Intermediate Accounting I .....	3
Approved Electives* .....	6
<i>Total Hours Required for Accounting Minor .....</i>	<i>18</i>

*\*A student may select any courses in the accounting program or curriculum provided they are approved by the Accounting Department advisor.*

#### Computer Information Systems Minor

This minor will provide a basic understanding of the concepts, current methodology, and rapid changes in the design, development, and use of computer-oriented systems for businesses and organizations.

Required Courses .....	Semester Hours
CMS 2010 Computer Applications for Business .....	3
CMS 2110 Business Problem Solving: A Structured Programming Approach -or-	
CMS 3270 Microbased Software .....	3
CMS 3050 Fundamentals of Systems Analysis and Design .....	3
CMS 3060 File Design and Data Base Management .....	3
Approved CMS 3000-Level Electives* .....	6
<i>Total Hours Required for CMS Minor .....</i>	<i>18</i>

## 2000-2001 College Catalog

*\*Approved electives are selected in consultation with and approved by a Computer Information Systems Department advisor.*

### Economics Minor

The economics minor provides students with an opportunity to acquire a general knowledge of the operation of economic systems and institutions, as well as the quantitative tools necessary for analytical research and thought.

Required Courses .....	Semester Hours
ECO 2010 Principles of Economics-Macro .....	3
ECO 2020 Principles of Economics-Micro .....	3
Approved Electives * .....	12
<i>Total Hours Required for Economics Minor .....</i>	<i>18</i>

*\*Approved electives are upper-division economics courses selected in consultation with and approved by the Economics Department.*

### Finance Minors

The Finance Department offers two minors: the finance minor and the real estate minor.

#### Finance Minor

This minor offers a broad-based education in finance, emphasizing a particular field within this discipline, such as personal financial planning, investments, managerial finance, financial institutions, or international finance.

For the finance minor, the student must have completed ACC 2010 and ACC 2020 (or the equivalent) and ECO 2010 and ECO 2020, which may be applied to the student's General Studies or elective requirements as applicable. The Finance Department requires 60 credit hours (junior standing) prior to taking upper-division finance courses. A minimum grade of "C" is required in all finance minor courses. At least 12 hours of finance courses must be completed in residency at MSCD to satisfy the requirements of the minor.

Required Courses .....	Semester Hours
FIN 3010 Financial Markets and Institutions .....	3
FIN 3300 Managerial Finance .....	3
FIN 3600 Investments .....	3
Approved Electives* .....	9
<i>Total Hours Required for Finance Minor .....</i>	<i>18</i>

*\*A student may select any courses in the finance program or curriculum provided they are approved by a Finance Department advisor.*

#### Real Estate Minor

The minor prepares students for opportunities in real estate, as well as for personal financial affairs dealing with this field.

For the real estate minor, the student must have completed ACC 2010 and ACC 2020 (or the equivalent) and ECO 2010, which may be applied to the student's General Studies or elective requirements as applicable. The Finance Department requires 60 credit hours (junior standing) prior to taking upper-division finance courses. A minimum grade of "C" is required in all finance minor courses. At least 12 hours of finance courses in the minor must be completed in residency at MSCD.

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Completion of FIN 3800, FIN 3810, and FIN 3830 fulfills the educational requirement for the Colorado Real Estate Brokers License.

Required Courses .....	Semester Hours
FIN 3800 Real Estate Practice and Law .....	3
FIN 3810 Advanced Real Estate Practice and Law .....	3
FIN 3830 Applications in Real Estate Practice .....	3
FIN 4840 Real Estate Appraisal .....	3
FIN 4850 Commercial and Investment Real Estate .....	3
Approved Elective* .....	3
<i>Total Hours Required for Real Estate Minor .....</i>	<i>18</i>

### \*Approved Electives

FIN 2250 Personal Money Management .....	3
FIN 3010 Financial Markets and Institutions .....	3
FIN 3300 Managerial Finance .....	3
FIN 3420 Principles of Insurance .....	3
FIN 3600 Investments .....	3
ECO 4500 Business and Economic Forecasting .....	3

## General Business Minor

Students minoring in general business must take ECO 2010 and ECO 2020. These hours may be part of the student's General Studies requirements. In addition to the required 24 credit hours below, students may take up to 6 additional credit hours within a specific business discipline for a total not to exceed 30 credit hours within the School of Business. If a student wishes to enroll in business courses beyond 30 hours, the student must declare a major with the School of Business.

Prerequisites credits may be applied to General Studies .....	Semester Hours
ECO 2010 Principles of Economics - Macro .....	3
ECO 2020 Principles of Economics - Micro .....	3
MTH 1310 Finite Mathematics for the Management and Social Sciences .....	3

Required Courses .....	Semester Hours
ACC 2010 Principles of Accounting I .....	3
ACC 2020 Principles of Accounting II .....	3
CMS 2010 Principles of Information Systems .....	3
CMS 2300 Business Statistics .....	3
FIN 3300 Managerial Finance .....	3
MGT 2210 Legal Environment of Business I .....	3
MGT 3000 Organizational Management .....	3
MKT 3000 Principles of Marketing .....	3

*Minimum Total Hours Required for General Business Minor  
(not to exceed 30 credit hours) .....24*

## International Business Minor

This minor is intended for non-business majors so that they may add some study in business from an international perspective to their degree programs.

The Associate Dean of the School of Business is the principal advisor for this minor.

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Required Courses .....	Semester Hours
ACC 1010 Accounting for Non-Business Majors* .....	3
ECO 2010 Principles of Economics-Macro* .....	3
ECO 2020 Principles of Economics-Micro* .....	3
MGT 3820 International Business .....	3
<i>Subtotal</i> .....	12

*Choose at least 6 hours from:*

MGT 3000 Organizational Management .....	3
MKT 3000 Principles of Marketing .....	3
FIN 3010 Financial Markets and Institutions .....	3
<i>Subtotal</i> .....	6

*Choose at least 6 hours from:*

ECO 3550 The International Economy .....	3
FIN 3100 International Money and Finance .....	3
MKT 3710 International Marketing** .....	3
<i>Subtotal</i> .....	6
<i>Total Hours Required for International Business Minor</i> .....	24

*\*This course has been approved for General Studies, Level II, Social Sciences, credit.*

*\*\*MKT 3000 is a prerequisite*

### Management Minor

The management minor prepares individuals for the important tasks of supervising others, working in teams and taking on additional responsibilities in their field of interest.

Required Courses .....	Semester Hours
MGT 3000 Organizational Management .....	3
MGT 3530 Human Resources Management .....	3
MGT 3550 Manufacturing and Service Management .....	3
MGT 3820 International Business .....	3
MGT 4530 Organizational Behavior .....	3
Approved Management Elective* .....	3
<i>Total Hours Required for Management Minor</i> .....	18

*\*Approved electives are selected in consultation with and approved by a Management Department advisor.*

### Marketing Minor

The marketing minor provides students with the opportunity to develop an understanding of business and sufficient familiarity with marketing skills to work in a business environment.

Required Courses .....	Semester Hours
MKT 3000 Principles of Marketing .....	3
MKT 3010 Marketing Research .....	3
MKT 2040 Managerial Communications .....	3
MKT 3310 Consumer Behavior .....	3
MKT 4520 Seminar in Marketing Management .....	3
Approved Electives* .....	3
<i>Total Hours Required for Marketing Minor</i> .....	18



## **2000-2001 College Catalog**

*\*Approved electives are selected in consultation with and approved by a Marketing Department advisor.*

## **School of Letters, Arts and Sciences**

The mission of the School of Letters, Arts and Sciences is to provide a place of teaching and learning that honors both tradition and imagination, one that respects the past and prepares people to be successful participants and leaders in the present as they help to shape the future.

The School of Letters, Arts and Sciences offers programs of study in humanities and in social, natural, and mathematical sciences. The programs prepare students for careers, graduate work, and lifelong learning.

The school offers more than 30 major and minor programs through 18 departments and the Institute for Women's Studies and Services. The faculty teach the majority of the General Studies Program and help prepare students to be teachers. In addition, they arrange internships and other applied educational experiences in state and local agencies, business, industry, and the media.

Through centers and a special program, the school advances educational and social goals:

- The Family Center provides a wide range of education, training, and research on policies related to family issues.
- The Center for Mathematics, Science and Environmental Education leads the effort to reform science and mathematics education in Colorado. The center contributes to systemic change in education by building cooperative programs with other colleges and universities, public schools, and the Colorado Department of Education. The center is the focal point for the Colorado Alliance for Science, a statewide alliance. The Center also develops programs and services for students from underrepresented groups in the areas of mathematics, science and environmental education. Currently, the center is a site for the Colorado Alliance for Minority Participation (CO-AMP) and offers tutoring and mentoring services to these students. The Colorado Alliance for Science, a statewide alliance of universities, offers assistance and support to students and teachers to strengthen the community's interest in science and mathematics.
- The Golda Meir Center for Political Leadership is a nonpartisan, educational project designed to foster greater public understanding of the role and meaning of leadership at all levels of civic life, from community affairs to international relations.

### **African American Studies Department**

The African American Studies Department offers a range of courses in African American studies that present the dimension of the black experience in this country. These courses encompass and afford a comprehensive understanding of the African heritage. They present African links and potential; contributions of black people in the growth and development of the United States; black culture and lifestyles; the black community; political activity and potential; religious development and importance; community service and resource assistance; and prognosis and potential for social change. The courses may apply in the General Studies requirements and as electives for graduation.

Students are urged to consult with the faculty in the African American Studies Department about new courses now being designed, as well as special offerings.

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The major in African American studies, which leads to a bachelor of arts degree, and the minor program must be planned in consultation with an advisor in the African American Studies Department.

Students desiring secondary licensure in social studies should see the section on the teacher education program.

### African American Studies Major for Bachelor of Arts

Required Courses .....	Semester Hours
AAS 1010 Introduction to African American Studies.....	3
AAS 1130 Survey of African History (HIS 1940).....	3
AAS 2000 Social Movements and the Black Experience (SOC 2000) ..	3
AAS 3300 The Black Community (SOC 3140) .....	3
AAS 3700 Psychology of Racism and Group Prejudice (PSY 3700) ...	3
AAS 4850 Research Seminar in African American Studies .....	3
<i>Subtotal</i> .....	18

Select one from the following:

MUS 2010 Topics in Ethnic Music: Variable Title.....	3
ART 3040 African Art.....	3
AAS 3240 African American Literature (ENG 3240).....	3
<i>Subtotal</i> .....	3
Electives* .....	18
<i>Total</i> .....	39

*\*Elective hours in African American studies courses are selected in consultation with the advisor.*

### Minor in African American Studies

Required Courses.....	Semester Hours
AAS 1010 Introduction to African American Studies .....	3
AAS 2000 Social Movements and Black Experience (SOC 2000) ..	3
<i>Total</i> .....	6

#### Electives

A minimum of 15 additional semester hours is required in African American courses, 3 hours of which must be an African course, selected in consultation with and approved by the African American studies advisor assigned to the student. Total hours for the minor are 21.

#### Assessment Test

During the final semester, students majoring in African American studies will be required to take a comprehensive assessment test.

## Anthropology Program

Anthropology is the exploration of human diversity. The combination of cultural, archaeological, and biological perspectives offer a viewpoint that is unique in studying the problems related to the survival and well-being of the human species. From the living and vanished cultures of Colorado to those of New Guinea or South America, anthropology can be applied to assist our understanding of human differences. Contact the Sociology, Anthropology, and Social Work Department for information.

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### Anthropology Major for Bachelor of Arts

Required Courses .....	Semester Hours
ANT 1010 Physical Anthropology and Prehistory .....	3
ANT 1310 Introduction to Cultural Anthropology.....	3
ANT 2100 Human Evolution .....	3
ANT 2330 Cross-Cultural Communication .....	3
ANT 2640 Archaeology .....	3
<i>Subtotal</i> .....	15
<i>Electives</i> .....	21
<i>Total</i> .....	36

At least 12 upper-division semester hours in anthropology must be completed at MSCD by students majoring in the field.

Students desiring teacher licensure in social studies should see an advisor in the Secondary Education Department.

#### Minor in Anthropology

The minor provides an opportunity for students to bring a unique anthropological perspective to their already chosen area of interest. Anyone having to deal with human or cultural differences would benefit from selecting a focus in cross-cultural contact, archaeology, or human diversity.

Required Courses .....	Semester Hours
ANT 1010 Physical Anthropology and Prehistory .....	3
ANT 1310 Introduction to Cultural Anthropology .....	3
<i>Subtotal</i> .....	6
<i>Electives</i> .....	15
<i>Total</i> .....	21

At least 6 upper-division semester hours must be completed at MSCD.

## Art Department

The Art Department offers a full range of studio art courses in the areas of fine arts (drawing, painting, printmaking, photography, video, and sculpture); design (communication design and computer imaging); and crafts (ceramics, metalwork, jewelry making, and art furniture) leading to the bachelor of fine arts degree; art history (studies emphasize contemporary, modern, ancient, and non-Western art) leading to the bachelor of fine arts degree; and licensure in art education.

#### Goals

Undergraduate studies in art and design prepare students to function in a variety of artistic roles. In order to achieve these goals, instruction should prepare students to:

- read the nonverbal language of art and design
- develop responses to visual phenomena and organize perceptions and conceptualizations both rationally and intuitively
- become familiar with and develop competence in a number of art and design techniques
- become familiar with major achievements in the history of art, including the works and intentions of leading artists in the past and present and demonstrate the way art reflects cultural values

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- evaluate developments in the history of art
- understand and evaluate contemporary thinking about art and design
- make valid assessments of quality in design projects and works of art

### Art Major for Bachelor of Fine Arts

Core Requirements for All Studio Art Majors .....	Semester Hours
ART 1100 Basic Drawing I .....	3
ART 1110 Basic Drawing II .....	3
ART 1200 Design Processes and Concepts I .....	3
ART 1210 Design Processes and Concepts II .....	3
ART 2010 Survey of Modern Art: Impressionism through Abstract Expressionism .....	3
ART 2020 Survey of Contemporary Art: 1960 to the Present .....	3
<i>Total</i> .....	18

#### Senior Experience Requirements for Studio Art Majors

ART 4010 Modern Art History: Theory and Criticism .....	3
ART 4750 Senior Experience Studio: Portfolio Development and Thesis Show .....	3
<i>Total</i> .....	6

Students choose one of the four areas of concentration: fine arts, design, crafts, or art history.

#### **Fine Arts Concentration** .....

21

15 hours in area of concentration in: drawing, painting, sculpture, printmaking, or photography (within the 21 above)

Select a combination of 15 hours from the following two areas:

Design .....	6 or 9
Crafts .....	6 or 9
ART 2000 World Art Prior to 1880 .....	3
Art History (upper-division)* .....	3

#### **Design Concentration** .....

21

15 hours in area of concentration in: advertising design or computer graphics (within the 21 above)

Select a combination of 15 hours from the following two areas:

Crafts .....	6 or 9
Fine Arts .....	6 or 9
ART 2000 World Art Prior to 1880 .....	3
Art History (upper-division)* .....	3

#### **Crafts Concentration** .....

21

15 hours in area of concentration in: ceramics, jewelry, or art furniture (within the 21 above).

Select a combination of 15 hours from the following two areas:

Design .....	6 or 9
Fine Arts .....	6 or 9
ART 2000 World Art Prior to 1880 .....	3
Art History (upper-division)* .....	3
<i>Total for Studio Art Majors</i> .....	66

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*\*ART 3090 is not applicable as upper division Art History credit, but may be taken for the multicultural requirement.*

(A minimum of 33 upper-division art hours required.)

A minor for art majors is optional.

### Art History Concentration

Core Requirements for All Art History Majors.....	Semester Hours
ART 1100 Basic Drawing I .....	3
ART 1110 Basic Drawing II .....	3
ART 1200 Design Processes and Concepts I .....	3
ART 1210 Design Processes and Concepts II .....	3
ART 2010 Survey of Modern Art: Impressionism through Abstract Expressionism....	3
ART 2020 Survey of Contemporary Art: 1960 to the Present .....	3
<i>Total</i> .....	18

Senior Experience Requirement for Art History Majors

ART 4010 Modern Art History: Theory and Criticism .....	3
<i>Total</i> .....	3
*Art History (required) .....	15
ART 2000 World Art Prior to 1880 .....	3
Fine Arts** .....	3 or 6
Design** .....	3 or 6
Crafts** .....	3 or 6
Art Electives .....	6
<i>Total</i> .....	60

*\*ART 3090 is not applicable as upper division Art History credit, but may be taken for the multicultural requirement.*

*\*\*15 hours are required among these three categories.*

(A minimum of 27 upper-division art hours required.)

Minor requirements for art majors are optional.

### Art Licensure: K-12

Teacher licensure for art majors is available through the Art Department. An art major is required.

Required Courses .....	Semester Hours
ART 3380 Introduction to Art Education .....	4
EDS 3110 Processes of Education in Multicultural Urban Secondary Schools .....	3
EDS 3120 Field Experience in Multicultural Urban Secondary Schools .....	3
EDS 3200 The Adolescent as a Learner .....	3
EDS 3210 Secondary School Curriculum and Classroom Management .....	3
EDS 3220 Field Experience in Teaching, Materials Construction, and Classroom Management .....	3
SED 3600 The Exceptional Learner in the Classroom .....	3
RDG 3280 Teaching of Reading and Writing in the Content Areas .....	4
ART 4380 Art Methods/Materials: K-12 .....	4
EDU 4190* Student Teaching and Seminar: Elementary K-6 .....	8
EDS 4290* Student Teaching and Seminar: Secondary (6-12) .....	8

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ART 4390 Integrating the Arts for Gifted and Talented .....	3
<i>Total</i> .....	49

*\*Student teaching is composed of daily full-time work during 16 weeks, split 8 and 8 weeks between elementary and secondary levels.*

In addition to field experiences included in required coursework, students must present evidence of having completed at least 200 hours of work with children. This may be accomplished through a variety of community organizations and institutional activities. Students should plan their volunteer work in consultation with the art education advisor.

Students who seek licensure must pass a public speaking course (SPE 1010) with a grade of "B" or better, or obtain a waiver. Students with a degree in Art may obtain a waiver. Students must also achieve satisfactory scores on the state licensure examination.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Minor in Art

Required Courses .....	Semester Hours
ART 1100 Basic Drawing I .....	3
ART 1110 Basic Drawing II .....	3
ART 1200 Design Processes and Concepts I .....	3
ART 1210 Design Processes and Concepts II .....	3
ART 2010 Survey of Modern Art: Impressionism through Abstract Expressionism ....	3
ART 2020 Survey of Contemporary Art: 1960 to the Present .....	3
Subtotal .....	18
Electives .....	9
Minimum of three credit hours of upper-division studio course and three credit hours of upper-division art history course	
<i>Total</i> .....	27

### Behavioral Science Program Major for Bachelor of Arts

This is a distributed major, offering students a structured overview of the social sciences. This program emphasizes breadth of coverage with a focus in an area selected by the student. This major is particularly applicable for students interested in teacher licensure at the elementary and secondary levels.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

The student must have preliminary approval of the selected program by an advisor from the Sociology, Anthropology and Social Work Department. A minimum of 12 upper-division hours in the major must be taken at MSCD.

Required Courses .....	Semester Hours
ANT 1310 Introduction to Cultural Anthropology .....	3
ECO 2010 Principles of Economics-Macro .....	3
HIS 1220 American History since 1865 .....	3

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PSC 1010 American National Government .....	3
PSY 1001 Introductory Psychology .....	3
SOC 1010 Introduction to Sociology .....	3
<i>Subtotal</i> .....	18

### Elected Focus

In addition to the introductory course, each student must select 12 hours in one of the following social science disciplines: anthropology, economics, history, political science, psychology, or sociology. A minimum of 9 upper-division hours must be selected with the approval of an advisor.

*Subtotal* .....12

### General Electives

An additional 12 hours must be selected from any of the disciplines outside of the elected focus. Courses may be selected from anthropology, economics, history, political science, psychology, or sociology. At least 9 of these hours must be upper-division. No more than 6 hours may be taken in any one discipline.

*Subtotal* .....12

*Total* .....42

### General Studies Requirements

The student is expected to complete all General Studies requirements as stated in this *Catalog*. The student may use up to 6 hours from the required courses for the behavioral science major to complete the social science component.

### Senior Experience

Selection of a Senior Experience course will vary according to the student's needs. Students seeking teacher licensure must select student teaching. Other students may select the capstone course in their focus or the applied anthropology course currently being developed by the department.

Students desiring teacher licensure should see an advisor in the teacher education program.

No minor is offered.

## Biology Department

The Biology Department offers two majors, the bachelor of science in biology and the bachelor of arts in biology. While it is not necessary to declare a concentration within these majors, a student may choose to emphasize botany, medical technology, microbiology, or zoology. Supportive courses associated with paramedical studies and criminalistics, as well as general courses for enrichment of the nonscience student's background, are offered by the department.

Students seeking secondary licensure in science should see an advisor in the teacher education program as well as the Biology Department. Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

Students interested in preparation for medical school or other health professions should contact the Biology Department for specialized advising. A senior exit exam, administered and required by the department, must be taken during the semester of anticipated



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graduation. The Biology Department main office is located in Science Building, room 213, 303-556-3213.

A biology minor is offered to students with related majors or a special interest in the field.

Guidelines for Field Experience/Internship/Practicum/Workshop/Cooperative Education Courses

No more than four semester credit hours with the following course numbers will be applied toward the 40 semester hours of biology courses required for graduation: BIO 2888, 2980, 2990, 3970, 3980, 4888, 4980, and 4990. However, the additional credits with the above course numbers may be applied toward general elective hours.

### Senior Experience for Biology Majors

A student majoring in biology may fulfill the Senior Experience requirement with any course approved for the purpose by the General Studies Committee. Any biology course approved by the General Studies Committee and the Biology Department for Senior Experience credit may be counted toward the Senior Experience requirement, or toward a biology major/biology minor, but not both.

### Biology Major for Bachelor of Science

Required Courses .....	Semester Hours
BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
BIO 3600 General Genetics .....	4
Select two of the following:	
BIO 2100 General Botany .....	5
BIO 2200 General Zoology .....	5
BIO 2400 General Microbiology .....	4

Select one of the following:	
BIO 3550 Urban Ecology .....	4
BIO 4540 Plant Ecology .....	4
BIO 4550 Animal Ecology .....	4
<i>Subtotal</i> .....	21-22

### Electives

Biology courses selected from the 2000-, 3000-, and 4000-level series, and approved by faculty advisors in the Biology Department, must be completed to bring the total of biology courses approved for the major to 40 semester hours. At least 21-22 semester hours must be from the 3000- and 4000-level courses of the Biology Department.

Electives .....	18-19
<i>Total</i> .....	40

### Required Non-biology Courses

One year of college general chemistry, one semester of upper-division organic chemistry, one semester of upper-division biochemistry, and one year of mathematics starting with MTH 1110, are requisites for the bachelor of science major in biology.

### Biology Major for Bachelor of Arts

Required Courses .....	Semester Hours
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BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
BIO 3600 General Genetics .....	4

Select two of the following:

BIO 2100 General Botany .....	5
BIO 2200 General Zoology .....	5
BIO 2400 General Microbiology .....	4

Select one of the following:

BIO 3550 Urban Ecology .....	4
BIO 4540 Plant Ecology .....	4
BIO 4550 Animal Ecology .....	4
<i>Subtotal</i> .....	21-22

### Electives

Biology courses selected from the 2000-, 3000-, and 4000-level series, and approved by faculty advisors in the Biology Department, must be completed to bring the total of biology courses approved for the major to 40 semester hours. At least 21-22 semester hours must be from the 3000- and 4000-level courses of the Biology Department.

Electives .....	18-19
<i>Total</i> .....	40

### Required Non-biology Courses

One year of general chemistry (equivalent to the present courses CHE 1100 and CHE 2100).

### Botany Concentration

Requirements for either a bachelor of arts or a bachelor of science degree in biology must be satisfied, and the 40 hours of biology courses must include BIO 2100 and BIO 4540, and 15 semester hours from the following botany electives:\*

Elective Courses .....	Semester Hours
BIO 3140 Plant Physiology .....	5
BIO 3150 Plant Hormones .....	2
BIO 3160 Plant Anatomy and Morphology .....	4
BIO 3180 Vascular Plant Taxonomy .....	4
BIO 4120 Algology .....	4
BIO 4160 Mycology .....	4
BIO 4850 Evolution .....	3
<i>Subtotal</i> .....	15

*\*BIO 3010 and BIO 3050 are both applicable to the fields of botany, microbiology, and zoology and are recommended as additional electives for all three areas of concentration.*

### Medical Technology Concentration

Students must satisfy the requirements listed for the bachelor of science degree in biology, including BIO 2400. Students must also take BIO 3350, BIO 4440, and BIO 4450. Additional hours must be taken from the courses listed below to complete the 20 hours of upper-division courses and a total of 40 semester credit hours in biology.

Elective Courses.....	Semester Hours
BIO 3210 Histology .....	4

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BIO 3270 Parasitology .....	4
BIO 3360 Animal Physiology .....	4
BIO 4160 Mycology .....	4
<i>Subtotal</i> .....	16

### Internship

Completion of a medical technology internship at an approved school of medical technology.

### Required Non-biology Courses

The student must satisfy the requirements listed for non-biology courses for the bachelor of science major and complete the requirements for a minor in chemistry.

### Microbiology Concentration

Students must satisfy the requirements listed for the bachelor of science major in biology, including BIO 2400. Students must also take BIO 3350, BIO 4400, BIO 4450, and BIO 4470. Additional hours from the courses listed below or appropriate omnibus courses as selected by the student and approved by the microbiology faculty must be taken to complete the 20 hours of upper-division courses and a total of 40 semester hours in biology.\*

Elective Courses .....	Semester Hours
BIO 3270 Parasitology .....	4
BIO 4120 Algology .....	4
BIO 4160 Mycology .....	4
BIO 4440 Virology .....	3

*\*BIO 3010 and BIO 3050 are both applicable to the fields of botany, microbiology, and zoology and are recommended as additional electives for all three concentrations.*

### Required Non-biology Courses

The student must satisfy the requirements listed for non-biology courses for the bachelor of science major including one course in biostatistics or calculus and a computer science course to fulfill the required one year of college mathematics. In addition, the student must complete CHE 3000, CHE 3010, CHE 4320, and one year of college physics.

### Zoology Concentration

Students must satisfy the requirements for the bachelor of science degree in biology and must include in the 40 semester hours of biology courses BIO 2200 and BIO 4550 and 15 semester hours from the following list of zoology electives:\*

Elective Courses .....	Semester Hours
BIO 3210 Histology .....	4
BIO 3220 Comparative Vertebrate Anatomy .....	5
BIO 3250 Arthropod Zoology .....	4
BIO 3270 Parasitology .....	4
BIO 3340 Endocrinology .....	3
BIO 3360 Animal Physiology .....	4
BIO 4250 Entomology .....	4
BIO 4270 Herpetology .....	3
BIO 4280 Ornithology .....	4
BIO 4290 Mammalogy .....	3
BIO 4810 Vertebrate Embryology .....	4
<i>Subtotal</i> .....	15

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*\*BIO 3010 and BIO 3050 are both applicable to the fields of botany, microbiology, and zoology and are recommended as additional electives for all three concentrations.*

### Minor in Biology

Required Courses .....	Semester Hours
BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1

Select two of the following:

BIO 2100 General Botany .....	5
BIO 2200 General Zoology .....	5
BIO 2400 General Microbiology .....	4
BIO 2310, 2320 Human Anatomy and Human Physiology I and II ...	8

Select one of the following:

BIO 3550 Urban Ecology .....	4
BIO 3600 General Genetics .....	4
BIO 4540 Plant Ecology .....	4
BIO 4550 Animal Ecology .....	4
<i>Subtotal</i> .....	17-21

#### Electives

Biology courses from the 2000-, 3000-, and 4000-level series, approved by the Biology Department, must be completed to bring the total of biology courses approved for the minor to 24 semester hours.

*Total* .....24

## Chemistry Department

The Chemistry Department is approved by the American Chemical Society and offers several degree programs: the bachelor of science in chemistry; bachelor of science in chemistry criminalistics concentration; and the bachelor of arts in chemistry. Minors in chemistry and criminalistics are also available.

Students who plan to pursue a career in chemistry after graduation or plan to attend graduate school in chemistry should choose the bachelor of science in chemistry program. The bachelor of arts in chemistry program is designed for students who plan a career in a field related to chemistry, but who do not intend to attend graduate school in chemistry. The bachelor of arts option, which requires fewer hours, may be especially attractive to those wishing a second major or to those students desiring secondary education licensure. Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

Criminalistics is the scientific investigation, identification, and comparison of physical evidence for criminal or civil court proceedings. Criminalists must be trained in many disciplines including chemistry, biology, law enforcement, physics, and mathematics. The four-year criminalistics curriculum leads to a bachelor of science degree and includes a half-time internship in a criminalistics laboratory during the senior year. Students in the criminalistics program are encouraged to complete all the requirements for a degree in chemistry approved by the American Chemical Society while completing the criminalistics degree program. Graduates of the program are prepared for employment in criminalistics

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and have completed the requirements for admission to graduate school in chemistry or criminalistics, medical school, dental school, or law school.

For further information about the criminalistics programs, students should contact the Chemistry Department. Students seeking secondary education licensure in science should see an advisor in the teacher education program for requirements.

The following courses constitute the basic core and are required in all chemistry degree programs except for the minor in chemistry.

Basic Core .....	Semester Hours
CHE 1800 General Chemistry I .....	4
CHE 1810 General Chemistry II .....	4
CHE 1850 General Chemistry Laboratory .....	2
CHE 3000 Analytical Chemistry .....	3
CHE 3010 Analytical Chemistry Laboratory .....	2
CHE 3100 Organic Chemistry I .....	4
CHE 3110 Organic Chemistry II .....	3
CHE 3120 Organic Chemistry I Laboratory .....	2
CHE 3130 Organic Chemistry II Laboratory .....	2
<i>Total</i> .....	26

### Chemistry Major for Bachelor of Science

Required Courses .....	Semester Hours
Basic Core .....	26

Additional Required Chemistry Courses:

CHE 3250 Physical Chemistry I .....	4
CHE 3260 Physical Chemistry II .....	4
CHE 3280 Physical Chemistry I Laboratory .....	2
CHE 3290 Physical Chemistry II Laboratory .....	2
<i>Subtotal</i> .....	12

Electives

A minimum of 10 semester hours in upper division chemistry courses selected in consultation with and approved by the

Chemistry Department is required. ....10

*Total Hours Required* .....48

Required Ancillary Courses for Bachelor of Science

MTH 1410 Calculus I .....	4
MTH 2410 Calculus II .....	4
MTH 2420 Calculus III .....	4
PHY 2311 General Physics I	
-and-	
PHY 2331 General Physics II	
-or-	
PHY 2010 College Physics I	
-and-	
PHY 2020 College Physics II .....	8
<i>Subtotal</i> .....	20

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American Chemical Society Approval

To meet American Chemical Society degree criteria the following courses must be completed:

CHE 2300 Inorganic Chemistry .....	3
CHE 3400 Chemical Literature Search .....	1
CHE 4100 Instrumental Analysis .....	3
CHE 4110 Instrumental Analysis Lab .....	2
CHE 4300 Advanced Inorganic Chemistry .....	3
<i>Subtotal</i> .....	12

### Electives

An additional 6 credit hours of upper division level electives are required. Electives should be selected in consultation with the Chemistry Department. The following courses may be appropriate:

CHE 4010, CHE 4020, and CHE 4320 .....	6
<i>Total</i> .....	56

### Criminalistics Concentration

Students electing this program of study must complete the basic chemistry core (26 hours) in addition to the following required courses. The requirement of a minor is waived for students in this program.

Required Courses .....	Semester Hours
Basic Core .....	26

#### Additional Required Chemistry Courses:

CHE 3190 Survey of Physical Chemistry .....	4
CHE 3200 Survey of Physical Chemistry Laboratory .....	1
CHE 4100 Instrumental Analysis .....	3
CHE 4110 Instrumental Analysis Laboratory .....	2
CHE 4310 Biochemistry I .....	4
CHE 4350 Biochemistry Laboratory .....	1

#### Required Criminalistics Courses:

CHE 3700 Criminalistics I .....	4
CHE 3710 Criminalistics II .....	4
CHE 4700 Criminalistics I Internship .....	7
CHE 4710 Criminalistics II Internship .....	7

#### Required Criminal Justice Courses:

CJC 1010 Introduction to the Criminal Justice System .....	3
CJC 2100 Substantive Criminal Law .....	3
CJC 2120 Evidence and Courtroom Procedures .....	3
CJC 3120 Constitutional Law .....	3

#### Required Ancillary Courses:

BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
BIO 2400 General Microbiology .....	4
BIO 3600 General Genetics .....	4
MTH 1210 Introduction to Statistics .....	4
MTH 1410 Calculus I .....	4
PHY 2010 College Physics I .....	

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and

PHY 2030 College Physics I Laboratory

-or-

PHY 2311 General Physics I

and

PHY 2321 General Physics I Laboratory .....5

*Total* .....100

### Chemistry Major for Bachelor of Arts

Required Courses .....Semester Hours

Basic Chemistry Core .....26

Additional Required Chemistry Courses:

CHE 3190 Survey of Physical Chemistry .....4

CHE 3200 Survey of Physical Chemistry Laboratory .....1

Electives

A minimum of 6 upper division semester hours in chemistry courses selected in consultation with and approved by the Chemistry Department is required.

*Subtotal* .....6

Required Ancillary Courses

MTH 1410 Calculus I .....4

PHY 2010 College Physics I .....4

*Total Ancillary Courses Required* .....8

*Total* .....45

### Minor in Chemistry

Students completing the basic chemistry core (26 hours) qualify for a minor in chemistry.

Students may elect to substitute 5 semester hours in other upper-division chemistry courses for CHE 3110 and CHE 3130.

Core .....Semester Hours

CHE 1800 General Chemistry I .....4

CHE 1810 General Chemistry II .....4

CHE 1850 General Chemistry Laboratory .....2

CHE 3000 Analytical Chemistry .....3

CHE 3010 Analytical Chemistry Laboratory .....2

CHE 3100 Organic Chemistry I .....4

CHE 3110 Organic Chemistry II .....3

CHE 3120 Organic Chemistry I Laboratory .....2

CHE 3130 Organic Chemistry II Laboratory .....2

*Total* .....26

### Minor in Criminalistics

Required Courses .....Semester Hours

CHE 1100 Principles of Chemistry .....5

CHE 2700 Introduction to Criminalistics .....4

CHE 2750 Arson and Explosives .....3

CHE 2760 Field Testing and Laboratory Analysis of Drugs ....1

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CHE 3600 Crime Scene Investigation I .....	4
CHE 3610 Crime Scene Investigation II .....	4
CJC 2120 Evidence and Courtroom Procedures .....	3
<i>Total</i> .....	24

## Chicano Studies Department

The Chicano Studies Department offers a bachelor of arts degree in Chicano studies. The Chicano and other Hispanic historical experiences are used as points of departure toward expanding awareness of the multicultural world and the contributions of Chicanos. The program is designed to assist in the preparation of scholars as well as human service providers.

### Chicano Studies Major for Bachelor of Arts

The requirements include core courses in the major, basic knowledge of the Spanish language, plus approved electives.

Required Courses .....	Semester Hours
CHS 1000 Introduction to Chicano Studies .....	3
CHS 1010 History of Meso-America: Pre-Columbian and Colonial Periods (HIS 1910) .....	3
CHS 1020 History of the Chicano in the Southwest: Mexico and U.S. Periods (HIS 1920) .....	3
CHS 2010 Survey of Chicano Literature (ENG 2410) .....	3
CHS 3100 The Chicano Community (SOC 3130) .....	3
CHS 4850 Research Experience in Chicano Studies .....	3
<i>Subtotal</i> .....	18

#### Language Requirements

SPA 1010 Elementary Spanish I .....	5
SPA 1020 Elementary Spanish II .....	5
SPA 2110 Intermediate Spanish	
-or-	
SPA 2120 Spanish Reading and Conversation .....	3
<i>Subtotal</i> .....	13
Approved Electives .....	9
<i>Total</i> .....	40

A minimum of 9 semester hours of electives in Chicano studies selected in consultation with the department chair is required.

### Minor in Chicano Studies

The minor can be designed to provide the student with course experiences that are relevant to occupational and educational goals. Students, in consultation with a faculty advisor in Chicano studies, will develop individual minors that reflect the best possible elective curricula and ensure that a relevant emphasis is maintained. Total hours for the minor are 21.

Required Courses .....	Semester Hours
CHS 1000 Introduction to Chicano Studies .....	3
CHS 1010 History of Meso-America: Pre-Columbian and Colonial Periods .....	3
CHS 1020 History of the Chicano in the Southwest: Mexican and U.S. Periods .....	3



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CHS 2010 Survey of Chicano Literature .....	3
<i>Total</i> .....	12

### Electives

A minimum of 9 semester hours of electives is required to complete the minor. The courses are to be selected in consultation with a Chicano studies faculty advisor.

### Assessment Test

During the final semester, students majoring in Chicano studies will be required to take a comprehensive assessment test.

## Computer Science in the Mathematical and Computer Sciences Department

The Mathematical and Computer Sciences Department offers a bachelor of science degree in computer science. The department offers a computer science minor which complements such majors as mathematics, engineering technology, the other sciences, and economics. All students who are considering a major or minor in computer science are expected to consult with faculty for advising.

The computer science major offers the theory and application of computer science which includes programming, data and file structures, database, networking, architecture, and software engineering.

### Non-Major Courses in Computer Science

The department offers courses as Computer Science Studies (CSS) that do not count toward a major in computer science. Some of the courses count toward majors in other programs. The Computer Science Studies courses are on topics appropriate to computer science but focused toward current, particular expertise.

### Major in Computer Science for Bachelor of Science

The department offers a complete degree program in computer science that adheres to the nationally recognized standards set by the Computer Sciences Accreditation Board. Students are encouraged to contact the department for further details (303-556-3208). The Senior Experience course in computer science is CSI 4260. The CSI program includes a required mathematics minor. A grade of "C" or better is required in all CSI courses included in the major as well as in all courses included in the required mathematics minor.

Required Core Courses .....	Semester Hours
CSI 1300 Computer Science 1* .....	4
CSI 2300 Computer Science 2 .....	4
CSI 2400 Computer Organization and Assembly Language .....	4
CSI 3100 Discrete Mathematics .....	4
CSI 3210 Principles of Programming Languages .....	4
CSI 3300 Foundations of File Structures .....	4
<i>Subtotal</i> .....	24

*\*CSI 1300 is a core course and part of the MTH minor.*

### Required Advanced Courses

CSI 4250 Software Engineering Principles .....	4
CSI 4260 Software Engineering Practices .....	4

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Choose two courses from:

CSI 3060 Computer Architecture and Systems Programming ....	4
CSI 3310 Fundamentals of Database Systems .....	4
CSI 4300 Advanced Data Structures and Algorithm Analysis ..	4

A minimum of 8 additional credit hours selected from  
upper-division CSI courses .....

*Subtotal* .....24

Required Ancillary Courses

COM 2610 Introduction to Technical Writing .....	3
EET 2310 Digital Logic and Telecommunications .....	4
PHI 3360 Business Ethics* .....	3
<i>Subtotal</i> .....	10

*\*PHI 1030, Ethics, may be substituted for PHI 3360.*

### Mathematics Minor (required for the Computer Science Major)\*

MTH 1410 Calculus I .....	4
MTH 2140** Computational Matrix Algebra .....	2
MTH 2410 Calculus II .....	4
MTH 3210 Probability and Statistics (Calculus-based) .....	4
Two courses chosen from:	
MTH 3220 Design of Experiments .....	4
MTH 3250 Optimization Techniques I .....	4
MTH 4480 Numerical Analysis I .....	4
<i>Subtotal</i> .....	22

*\*CSI 1300 is part of the mathematics minor.*

*\*\*MTH 3140 may be substituted for MTH 2140.*

Additional Course Requirements

ENG 1010* Freshman Composition: The Essay .....	3
ENG 1020* Freshman Composition: Analysis, Research and Documentation .....	3
SPE 1010* Public Speaking .....	3
PHY 2311-2341* General Physics I, Lab I, General Physics II, Lab II -or-	
CHE 1800, CHE 1810, CHE 1850* General Chemistry I, II, and Laboratory ..	10
XXX XXX* Level II General Studies-Historical .....	3
XXX XXX* Level II General Studies-Arts and Letters .....	3
XXX XXX* Level II General Studies-Social Sciences .....	6
Six additional hours from the areas of communication, historical, arts and letters, and/or social sciences .....	6
Unrestricted Electives .....	3
<i>Subtotal</i> .....	40

*\*These courses, along with MTH 1410 and PHI 3360, count as General Studies courses.  
The Multicultural graduation requirement of 3 credit hours must also be satisfied.*

Total .....120

### Minor in Computer Science

A grade of "C" or better is required in each course included in the minor.

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Required Courses .....	Semester Hours
CSI 1300 Computer Science 1 .....	4
CSI 2300 Computer Science 2 .....	4

### Electives

A minimum of 12 semester hours chosen from CSI 2400 and upper-division CSI courses .....	12
<i>Total</i> .....	20

## Earth and Atmospheric Sciences Department

The Earth and Atmospheric Sciences Department is composed of three separate disciplines: geography, geology, and meteorology. The department offers a bachelor of arts or bachelor of science degree in land use and bachelor of science degrees in meteorology and environmental science. The bachelor of science degree is recommended for those students desiring a stronger background in the physical and quantitative aspects of the environment.

Minor programs are available in geography, geology, and meteorology. Students working toward teacher licensure in either science or social studies may take courses in geology, geography, or meteorology. Students interested in earth space science may develop an Individualized Degree Program major through the Center for Individualized Learning, 303-556-8342, Central Classroom 106.

### Environmental Science

The environmental science major is designed as an entry-level major for MSCD students as well as for students transferring as juniors from the community colleges with backgrounds in hazardous materials technology or water quality or a degree in Environmental and Safety Technology. All students are required to complete a unified core. In addition, students may choose from five options (concentrations) depending on their areas of interest. The multidisciplinary concentration provides students with a broad-based environmental science background, whereas the other emphases in hazardous materials, water quality, environmental chemistry, and ecological restoration are more specialized. No minor is required. (See [Environmental Science](#))

### Land Use

The land use major is very broad in scope and can be used for a number of career objectives and graduate school programs. Opportunities exist in such areas as planning, cartography, geographic information systems (GIS), air photo and satellite imagery interpretation, environmental and resource management, travel and transportation, mining and mineral resources, residential and industrial development, recreational land use, population analysis, and a variety of other interrelated fields. This program provides a solid foundation for continued study at the graduate level. (See [Land Use](#))

### Meteorology

Meteorology is the science of the atmosphere. Modern meteorologists are involved in weather observing, forecasting, research, and dissemination of weather information to the public. Meteorologists also study global weather and climate, and investigate the influence that human beings exert on Earth's climate. The forecasting laboratory includes a computerized observing station, daily weather maps, satellite images, and access to the national weather database. The bachelor of science degree in meteorology follows American Meteorological Society recommendations for undergraduate programs. Students should

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contact a meteorology faculty member to discuss degree programs, career opportunities, and graduate school options. (See [Meteorology](#))

## English Department

### Role and Mission Statement:

Department of English faculty share a heritage in which language, writing, literature, and the art of teaching are valued as cornerstones of a liberal education. Representing distinct specializations, we form a community of readers and writers who pursue the study of humane letters for both aesthetic and practical reasons.

The English Department provides students from across the college with courses that fulfill the Level I General Studies requirement in English composition: English 1010 (Freshman Composition: The Essay) and English 1020 (Freshman Composition: Research, Analysis, and Documentation). The department also teaches literature and linguistics courses that meet the Level II General Studies requirement in Arts and Letters. Thus, in keeping with the liberal arts tradition of general education, the department promotes both the basic intellectual skills of critical reading and writing and the kind of understanding of the human condition that comes from the experience and appreciation of literature.

For students majoring or minoring in English, the program provides a foundation in literature, language, writing, and teaching. Thus students' command of written language, their ability to analyze concepts, and their broad understanding of human nature and social realities will enable them to be competitive in a variety of fields, including education, business, and civil service or, with appropriate graduate work, in professions such as law and higher education.

English department faculty members develop professionally in a variety of ways appropriate to their disciplines, from maintaining currency in the curricula they teach and the instructional technology they employ to scholarly and creative work leading to various forms of publication and presentation. They serve the college and community by volunteering in schools or other organizations concerned with the written word and by sharing with their fellow citizens the insights of teacher-scholars educated in the tradition of the liberal arts.

The English Department offers instruction in literature, writing, language, and linguistics and in elementary and secondary English education. Courses in each area appeal to students in every school of the college who wish to read and understand representative literatures of the world; to examine the principles underlying how language works; and to cultivate their writing skills.

The department invites students in other disciplines to select English courses to enhance their general education. Students may also choose an English major or minor from areas listed below.

Students who are considering a major or minor in the English Department are expected to consult with faculty for advising. Students in elementary or secondary licensure programs should consult with advisors in the appropriate education department as well.

The English major may choose a concentration in one of the following:

- [literature](#)
- [writing](#)
- [elementary school teaching, leading to licensure](#)
- [secondary school teaching, leading to licensure](#)

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The English minor may choose a concentration in one of the following:

- [language and linguistics](#)
- [literature](#)
- [writing](#)

The English Department assesses the major in designated Senior Experience courses. Portfolios of papers assigned through these courses will be read by members of the faculty. Senior Experience courses should not be taken until the student's final year of study. Because these courses may not be offered every semester, students should discuss scheduling with English Department advisors. Further information is available in the English Department office.

### English Major for Bachelor of Arts Literature Concentration

The English major, literature concentration, encompasses a range of American, British, and world literature. The program provides a strong foundation of courses in literature and language, sequenced to cultivate a sense of literary development, and fosters an increasing familiarity with major works and writers, critical theory, literary terminology, and research materials. Because of their command of the written language, their ability to deal with ideas and concepts as well as facts, and their broader understanding of human nature and social realities, literature majors are valued in many fields, including academe, the law, and the world of business.

Required Courses .....	Semester Hours
ENG 2100 Introduction to Literary Studies .....	3
ENG 2220 American Literature: Civil War to Present .....	3
ENG 3100 Studies in Chaucer, Shakespeare and Milton .....	3
ENG 3440 Myth, Symbol and Allusion In Literature .....	3
ENG 4610 Literary Criticism (Senior Experience course) .....	3
<i>Subtotal</i> .....	15

Three of these courses:

ENG 2110 World Literature: Beginnings to 1600 .....	3
ENG 2120 World Literature: 17th Century to Present .....	3
ENG 2210 American Literature: Beginnings through Civil War ...	3
ENG 2310 British Literature: Beginnings to 1785 .....	3
ENG 2330 British Literature: 1785 to Present .....	3
<i>Subtotal</i> .....	9

One of these courses:

ENG 2010 The Nature of Language .....	3
ENG 3020 History of the English Language .....	3
ENG 3030 Semantics .....	3
ENG 3040 Morphology and Syntax .....	3
<i>Subtotal</i> .....	3

Six Electives (at least 5 courses must be upper division):

Development course .....	3
Period course .....	3
Major author course .....	3
Writing course .....	3
Literature course .....	3

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Elective at the 2000 or above level .....	3
<i>Subtotal</i> .....	18
<i>Total</i> .....	45

### Elementary School Teaching Concentration

The elementary school teaching concentration in English, offered in conjunction with the Colorado State Department of Education licensure program, prepares future teachers of elementary education to understand and teach the diverse subject matter required for licensure. The program will provide students with a strong foundation in literature and literary genres; a solid perspective on the English language, including its history, structure, and constituents; and both theory and practice in composition, language arts, communication, and teaching methodology. It also addresses the need to prepare teachers to teach multicultural literature, accommodate cultural and ethnic diversity in language and writing, and communicate effectively with a diverse population of students.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

#### Required Courses .....Semester Hours

##### Literature Core Courses

ENG 2100 Introduction to Literary Studies .....	3
ENG 2220 American Literature: Civil War to Present .....	3
ENG 3100 Studies in Chaucer, Shakespeare and Milton .....	3
ENG 3440 Myth, Symbol and Allusion in Literature .....	3
ENG 3460 Children's Literature .....	3
<i>Subtotal</i> .....	15

##### Language/Linguistics Core Courses

ENG 2010 The Nature of Language .....	3
ENG 3020 History of the English Language .....	3
<i>Subtotal</i> .....	6

##### Writing/Composition Courses

ENG 2500 Art and Craft of Writing	
-or-	
ENG 2520 Introduction to Creative Writing.....	3
ENG 3510 Advanced Composition .....	3
<i>Subtotal</i> .....	6

##### Language Arts Core Courses

ENG 4650 Teaching Composition in Elementary Schools .....	3
ENG 4660 Teaching Literature and Language: K-6 (Senior Experience course) .....	3
RDG 3130* Literacy Instruction in Grades K-6 .....	5*
<i>Subtotal</i> .....	6

##### English Electives

Two upper-division English courses selected in consultation with and approved by a designated English advisor. ....	6
<i>Total</i> .....	39

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*\*RDG 3130 meets the reading requirements for Colorado State licensure but is carried under the student's professional education requirements.*

### Secondary School Teaching Concentration

The secondary education concentration in English, offered in conjunction with the Colorado State Department of Education licensure program, prepares future secondary teachers of English to understand and teach the diverse subject matter required for licensure. This program equips students with a wide variety of language principles and skills; practical experience in developing and teaching the processes of writing; sound knowledge of approaches to literature and literary genres; periods and authors (including a special focus on young adult literature); and an understanding of communication and media as used in English studies. In addition to meeting specified state and departmental requirements, this program offers students the opportunity to develop further specialization in writing, language, or literature to complement the major.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this Catalog, pages 172-173, and they should stay in regular contact with their advisors.

#### Required Courses .....Semester Hours

##### I. Literature Core

ENG 2100 Introduction to Literary Studies .....	3
ENG 2210 American Literature: Beginnings through the Civil War -or-	
ENG 2220 American Literature: Civil War to Present .....	3
ENG 3100 Studies in Chaucer, Shakespeare, and Milton .....	3
ENG 3440 Myth, Symbol, and Allusion in Literature .....	3
ENG 3470 Young Adult Literature .....	3
<i>Total</i> .....	15

##### II. Language Core

ENG 2010 The Nature of Language .....	3
ENG 3020 History of the English Language .....	3
<i>Total</i> .....	6

##### III. Composition Core

ENG 2500 The Art and Craft of Writing .....	3
ENG 3510 Advanced Composition .....	3
<i>Total</i> .....	6

##### IV. Teaching English Core

ENG 3620 Teaching Composition, 7-12 .....	3
ENG 4600 Teaching Literature and Communication, 7-12 .....	3
ENG 4640 Teaching English, 7-12 (Senior Experience course) .....	3
<i>Total</i> .....	9

##### V. Upper Level Electives

Three upper-division English courses, at least two of which must be literature courses, selected in consultation with and approved by a designated English advisor .....	9
<i>Total</i> .....	45

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### Writing Concentration

The writing concentration major provides extensive study, practice, and opportunity for performance in various modes and genres of writing as well as a foundation in the appreciation of the literary heritage in English. The program immerses students in reading, writing, and language and helps prepare them for graduate school or vocation while clearly placing them in the tradition of the liberal arts.

Required Courses .....Semester Hours

#### I. Literature Courses

Lower-Division Literature Courses 2000-level, including ENG 2100 .....9

Three hours must emphasize modern literature.

Upper-Division Literature Courses: 3000-Level and/or 4000-Level .....9

*Semester Hours of Literature Required* .....18

#### II. Language and Linguistics Course

Select one, in consultation with a faculty advisor, from the department's offerings. *Semester Hours of Language and Linguistics Required* .....3

#### III. Writing Courses

Entry Course:

ENG 2500 The Art and Craft of Writing .....3

*Subtotal* .....3

Writing Electives (In consultation with an English advisor, select four - three must be 3000-level)

JRN 1100 Beginning Reporting .....3

ENG 2520 Introduction to Creative Writing .....3

COM 2610 Introduction to Technical Writing .....3

ENG 3510 Advanced Composition .....3

ENG 352A Creative Writing Workshop: Poetry .....3

ENG 352B Creative Writing Workshop: Fiction .....3

ENG 352C Creative Writing Workshop: Drama .....3

ENG 3530 Techniques of Critical Writing .....3

ENG 3980 English Cooperative Education .....3

*Subtotal* .....12

#### Specialized Writing Courses

ENG 3820 Writing Studio (must be repeated for credit under two distinct titles) .....6

*Subtotal* .....6

Senior Experience Course

ENG 4520 Advanced Writing .....3

*Total Semester Hours of Writing Required* .....24

*Total Semester Hours Required* .....45

## English Minor

### Writing Concentration

The writing concentration minor provides study, practice, and opportunity for performance in various modes and genres of writing as well as a foundation in the appreciation of the literary heritage in English. The program involves students in reading, writing, and



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language, and helps prepare them for graduate school or vocation, while clearly placing them in the tradition of the liberal arts.

Students must meet with a writing faculty advisor in order to understand prerequisites and select proper courses.

### I. Literature Course

Lower-Division Literature Courses:

2000-Level, Including ENG 2100 .....6

Upper-Division Literature Course:

3000-Level or 4000-Level .....3

*Subtotal* .....9

### II. Language and Linguistics Course:

Select one, in consultation with a faculty advisor, from department's offerings. *Semester Hours of Language and Linguistics Required* .....3

### III. Writing Course:

Entry Course:

ENG 2500 The Art and Craft of Writing .....3

*Subtotal* .....3

Writing Electives (select three - two must be 3000-level)

JRN 1100 Beginning Reporting .....3

ENG 2520 Introduction to Creative Writing .....3

COM 2610 Introduction to Technical Writing .....3

ENG 3510 Advanced Composition .....3

ENG 352B Creative Writing Workshop: Fiction .....3

ENG 352A Creative Writing Workshop: Poetry .....3

ENG 352C Creative Writing Workshop: Drama .....3

ENG 3530 Techniques of Critical Writing .....3

ENG 3820 Writing Studio .....3

*Subtotal* .....9

*Semester Hours of Writing Required* .....12

*Total Semester Hours Required* .....24

## Literature Concentration

The English minor with concentration in literature serves students who seek to develop skills in reading, writing, and thinking about literary texts. The program is designed both for students interested in reading diverse texts from many ages, culture, and genres and for students who wish to focus on a single age, culture or genre, for example, dramatic literature.

Course should be selected in consultation with a faculty advisor in the Department of English.

I. Introductory Course: .....Semester Hours

ENG 2100 Introduction to Literary Studies .....3

II. Two courses from the following:

ENG 2110 World Literature: Beginnings to 1600 .....3

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ENG 2120 World Literature: 17th Century to Present .....	3
ENG 2210 American Literature: Beginnings through Civil War ..	3
ENG 2220 American Literature: Civil War to Present .....	3
ENG 2310 British Literature: Beginnings to 1785 .....	3
ENG 2330 British Literature: 1785 to Present .....	3
<i>Subtotal</i> .....	6

III. Any period course (ENG 311A, ENG 311B,  
ENG 311C, ENG 311D, ENG 311E, ENG 311F, ENG 311G)  
-or-  
Any development course  
(Choose one course from ENG 3210, ENG 3230,  
ENG 3240, ENG 3310, ENG 3330, ENG 3400 or ENG 3410)  
*Subtotal* .....3

IV. Departmental Electives  
One course at the 2000-level or above .....3  
Two literature courses at the 3000-level or above .....6  
One 4000-level literature or literary criticism course .....3  
*Subtotal* .....12  
*Total Semester Hours Required* .....24

*Note: This minor replaces both the literature concentration and the dramatic literature concentration of the 1994-95 Catalog.*

### Language and Linguistics Minor

The language and linguistics minor offers concepts about, theories of, and analytical techniques in natural language. It represents an intellectual discipline in itself and simultaneously serves the interests of future teachers, students of literature and writing, and others who have a continuing fascination with language as language. The minor is especially complementary for majors in anthropology, English, foreign language teaching, modern languages, philosophy, psychology, sociology, speech communication, and technical communication. The minor requires students to engage in vigorous, progressively more explicit and precise analysis and synthesis as they examine facts and fallacies about the miracle of language.

Required Core Courses .....	Semester Hours
ENG 2010 The Nature of Language .....	3

Any four of the following six courses, chosen in consultation  
and with an approved departmental advisor.

ENG 3020 History of the English Language .....	3
ENG 3030 Semantics .....	3
ENG 3040 Morphology and Syntax .....	3
ENG 3050 Language and Society.....	3
ENG 3060 Modern Language Theory .....	3
ENG 4010 Studies in Linguistics (Variable Topics) .....	3
<i>Subtotal</i> .....	12

Interdisciplinary elective courses. Any two courses chosen in  
consultation with and approved by departmental advisor.

ANT 2330 Cross-Cultural Communication .....	3
COM 3310 International Technical Communication .....	3

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ENG 4010 Studies in Linguistics (Variable Topics) .....	3
ENG 4990 Internship .....	3
PHI 1110 Language, Logic, and Persuasion .....	3
PHI 3120 Philosophy of Language .....	3
PSY 3570 Cognitive Psychology .....	3
SED 4200 Language Development and Learning Disabilities .....	3
SPA 3150 Spanish Phonetics: Theory and Practice .....	3
SPA 4310 History of the Spanish Language .....	3
SPE 3520 Language Acquisition .....	3
SPE 3540 Phonetics and Language Sample Analysis .....	3
SPE 3740 Psychology of Communication .....	3
SPE 3760 Cultural Influences on Communication .....	3
WMS 2770 Gender and Communication .....	3
(SPE 2770)	
<i>Subtotal</i> .....	6
<i>Total Semester Hours Required</i> .....	21

## Environmental Science

The environmental science major is designed as an entry-level major for MSCD students as well as for students transferring as juniors from the community colleges with backgrounds in hazardous materials technology or water quality or a degree in Environmental and Safety Technology. All students are required to complete a unified core. In addition, students may choose from five options (emphases) depending on their areas of interest. The multidisciplinary concentration provides students with a broad-based environmental science background, whereas the other emphases in hazardous materials, water quality, environmental chemistry, and ecological restoration are more specialized. No minor is required.

Interested students should go to the Department of Earth and Atmospheric Sciences (Science 231) to be assigned an advisor and to pick up advising and career option sheets.

### Environmental Science Major for Bachelor of Science

Core Requirements for all Environmental Science Emphases .....	Semester Hours
BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
CET 3320 Environmental Impact Statements .....	3
COM 3670 Writing for the Environmental Industry (Prerequisite: COM 2610 or permission of instructor) .....	3
GEG 1200 Introduction to Environmental Science .....	3
GEG 1220 Map Use .....	2
GEG 4200 Environmental Policy and Planning .....	3
MTH 1210 Introduction to Statistics .....	4
MTH 3240 Environmental Statistics .....	4
<i>Subtotal</i> .....	26

Students must select one of the following Senior Experience courses:

BIO 4510 Microbial Ecology .....	3
BIO 4540 Plant Ecology .....	4
CHE 4950 Senior Experience in Chemistry .....	3
GEG 4960 Global Environmental Challenges .....	3
GEL 4960 Environmental Field Studies .....	3
<i>Subtotal</i> .....	3

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Students must select one of the following Internships (minimum 3 credit hours):

BIO 4990 Internship in Biology .....	3
CHE 4650 Chemistry Work Experience/Cooperative Education .....	4
GEG 4950 Internship in Land Use .....	3
GEL 4950 Internship in Geology .....	3
<i>Subtotal</i> .....	3
<i>Total Core Requirements</i> .....	32

### Required General Studies Courses

MTH 1110 College Algebra (General Studies-Level I-Mathematics) .....	4
CHE 1800 General Chemistry I (General Studies-Level II-Natural Science) .....	4
GEL 1010 General Geology (General Studies-Level II-Natural Science) .....	4
<i>Total General Studies courses</i> (see General Requirements Brochure) .....	36

*(Students who have not had a computer course will be required to take CSI 1010)*

## Multidisciplinary Concentration

Students are required to select courses in Biology, Chemistry, Geography, Geology, Mathematics, and Meteorology, as well as elective courses in consultation with a discipline advisor totaling a minimum of 42 hours.

Environmental Science Core .....	32
Biology (9 hours minimum)	
BIO 2100 General Botany .....	5
BIO 2200 General Zoology .....	5
BIO 2400 General Microbiology .....	4
BIO 3140 Plant Physiology .....	5
BIO 3180 Vascular Plant Taxonomy .....	4
BIO 3360 Animal Physiology .....	4
BIO 3550 Urban Ecology .....	4
BIO 4120 Algology .....	4
BIO 4450 Pathogenic Microbiology .....	5
BIO 4510 Microbial Ecology .....	3
BIO 4540 Plant Ecology .....	4
BIO 4550 Animal Ecology .....	4
<i>Subtotal</i> .....	9
Chemistry (9 hours minimum)	
CHE 1810 General Chemistry II (required) .....	4
CHE 1850 General Chemistry Laboratory (recommended) .....	2
CHE 3050 Environmental Chemistry .....	3
CHE 3100 Organic Chemistry I .....	4
CHE 3110 Organic Chemistry II .....	3
CHE 3120 Organic Chemistry Laboratory I .....	2
CHE 3130 Organic Chemistry Laboratory II .....	2
CHE 3890 Science and Public Policy: Variable Topics .....	1-3
<i>Subtotal</i> .....	9
Geography (9 hours minimum)	
GEG 1230 Weather and Climate .....	3
GEG 1400 World Resources .....	3
GEG 2250 Introduction to Geographic Information Systems .....	3
GEG 3400 Water Resources .....	3

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GEG 3620 Population, Resources, and Land Use .....	3
GEG 4840 Remote Sensing .....	3
GEG 4850 Advanced Geographic Information Systems .....	3
GEG 4888 Workshop on Environmental Issues (advisor approved) .....	3
GEG 4900 Environmental Seminar (advisor approved) .....	3
<i>Subtotal</i> .....	9

### Geology (9 hours minimum)

GEL 3120 Advanced Geomorphology .....	4
GEL 3150 Hydrogeology .....	3
GEL 3420 Soil Resources .....	4
GEL 3440 Energy and Mineral Resources .....	4
GEL 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity .....	2
GEL 4000 Environmental Geology (required) .....	3
GEL 4010 Environmental Hazards and Planning .....	3
GEL 4150 Hydrology.....	3
<i>Subtotal</i> .....	9

### Mathematics (3 hours minimum)

MTH 1120 College Trigonometry .....	3
MTH 1400 Precalculus Mathematics .....	4
MTH 1410 Calculus I (highly recommended) .....	4
MTH 2410 Calculus II .....	4
<i>Subtotal</i> .....	3

### Meteorology (3 hours minimum)

MTR 1400 Introduction to Meteorology	
-or-	
GEG 1230 Weather and Climate .....	3
MTR 3400 Synoptic Meteorology .....	4
<i>Subtotal</i> .....	3
<i>Total Multidisciplinary Courses</i> .....	42
General Studies .....	36
Electives .....	10
<i>Total for Multidisciplinary Concentration</i> .....	120

## Hazardous Materials Concentration

Environmental Science Core .....	32
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### Additional Required Courses .....Semester Hours

CHE 1810 General Chemistry II .....	4
CHE 1850 General Chemistry Laboratory .....	2
CHE 3050 Environmental Chemistry .....	3
CHE 3100 Organic Chemistry I .....	4
CHE 3120 Organic Chemistry Laboratory I .....	2
GEL 3420 Soil Resources .....	4
GEL 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity* .....	2
GEL 4000 Environmental Geology .....	3
EST 132 Environmental Health and Safety (OSHA) .....	3
(offered at Arapahoe, Front Range and Red Rocks Community Colleges)	
<i>Subtotal</i> .....	27

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### Community College Electives (select at least 15 hours):

#### Arapahoe Community College

EST 107 Hazardous Materials Emergency Response Operations ...	3
EST 112 Chemistry of Hazardous Materials .....	3
EST 211 Pollution Prevention .....	3
EST 231 Site Remediation .....	3
EST 235 Field Instrumentation .....	3
EST 241 Environmental Sampling .....	3
EST 261 RCRA Compliance .....	3
EST 265 Environmental Auditing .....	3
EST 268 Site Assessment .....	3
EST 270 Risk Assessment .....	3
EST 280 Environmental Compliance .....	3
EST 295 Environmental Management .....	3

#### Front Range Community College

EST 107 Emergency Response Operations Level .....	3
EST 211 Pollution Prevention .....	3
EST 221 OSHA Health and Safety Update .....	1
EST 231 Site Remediation .....	3
EST 241 Environmental Sampling .....	4
EST 261 RCRA Compliance .....	3
EST 265 Environmental Audits .....	3
EST 268 Site Assessment .....	3
EST 270 Risk Assessment .....	3

#### Red Rocks Community College

EST 107 Hazardous Materials Operations .....	3
EST 112 Chemistry of Hazardous Materials .....	3
EST 211 Pollution Prevention .....	3
EST 241 Environmental Sampling .....	4
EST 261 RCRA Compliance .....	3
EST 265 Environmental Auditing .....	3
EST 268 Site Assessment .....	3
EST 270 Risk Assessment .....	3
EST 280 Environmental Compliance .....	3
EST 295 Environmental Management .....	3
<i>Subtotal of electives from Community Colleges</i> .....	15
<i>Electives from Community College or MSCD</i> .....	10
General Studies .....	36
<i>Total for Hazardous Materials Concentration</i> .....	120

#### Water Quality Concentration

Environmental Science Core .....	32
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#### Additional Required Courses .....Semester Hours

CHE 1810 General Chemistry II .....	4
CHE 1850 General Chemistry Laboratory .....	2
CHE 3050 Environmental Chemistry .....	3
CHE 3100 Organic Chemistry I .....	4
CHE 3120 Organic Chemistry Laboratory I .....	2
GEG 1230 Weather and Climate	

-or-

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MTR 1400 Introduction to Meteorology .....	3
GEL 3150 Hydrogeology .....	3
GEL 4150 Hydrology .....	3
EST 132 Environmental Health and Safety (OSHA) .....	3
(offered at Arapahoe, Front Range and Red Rocks Community Colleges)	
<i>Subtotal</i> .....	27

### Red Rocks Community College (select 13 hours from the following courses):

WQM 100 Introduction to Water Quality Management .....	3
WQM 119 Basic Water Quality Analysis .....	4
WQM 121 Environmental Sampling and Volume Management .....	3
WQM 210 Advanced Water Quality Analysis .....	4
WQM 216 Biological and Bacteriological Water Quality Analysis ..	4
<i>Subtotal</i> .....	13

Select 12 hours from the following courses:

BIO 2100 General Botany .....	5
BIO 2400 General Microbiology .....	4
BIO 3550 Urban Ecology .....	4
BIO 4120 Algology .....	4
BIO 4510 Microbial Ecology .....	3
CET 3330 Environmental Technology Processes .....	3
GEG 3400 Water Resources .....	3
GEL 3420 Soil Resources .....	4
<i>Subtotal</i> .....	12
General Studies .....	36
<i>Total for Water Quality Concentration</i> .....	120

### Ecological Restoration Concentration

Environmental Science Core .....	32
Additional Required Courses .....	Semester Hours
CHE 1810 General Chemistry II .....	4
CHE 1850 General Chemistry Laboratory .....	2
ECO 3450 Environmental Economics .....	3
GEG 4900 Environmental Seminar (advisor approved) .....	3
GEL 3420 Soil Resources .....	4
GEL 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity.....	2
GEL 4000 Environmental Geology .....	3
GEL 4010 Environmental Hazards and Planning .....	3
PSC 3230 Environmental Politics .....	3
<i>Subtotal</i> .....	27

Electives (select 25 hours from the following list):

BIO 2100 General Botany.....	5
BIO 2200 General Zoology .....	5
BIO 2400 General Microbiology .....	4
BIO 3140 Plant Physiology .....	5
BIO 3180 Vascular Plant Taxonomy .....	4
BIO 3360 Animal Physiology .....	4
BIO 3550 Urban Ecology .....	4
BIO 4120 Algology .....	4
BIO 4510 Microbial Ecology .....	3
BIO 4540 Plant Ecology .....	4

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GEG/GEL Topics courses .....	5
<i>Subtotal of electives</i> .....	25
General Studies .....	36
 <i>Total for Ecological Restoration Concentration</i> .....	120

### Environmental Chemistry Concentration

Environmental Science Core .....	32
Additional Required Courses .....	Semester Hours
BIO 2400 General Microbiology .....	4
BIO 4510 Microbial Ecology .....	3
CHE 1810 General Chemistry II .....	4
CHE 1850 General Chemistry Laboratory .....	2
CHE 3000 Analytical Chemistry .....	3
CHE 3010 Analytical Chemistry Laboratory .....	2
CHE 3050 Environmental Chemistry .....	3
CHE 3100 Organic Chemistry I.....	4
CHE 3120 Organic Chemistry Laboratory I .....	2
CHE 4150 Instrumentation and Analysis in the Occupational Environment .....	4
CHE 4200 Evaluation and Control of Air Quality .....	3
GEL 3420 Soil Resources.....	4
GEL 4000 Environmental Geology .....	3
EST 132 Environmental Health and Safety (OSHA) .....	3
(offered at Arapahoe, Front Range and Red Rocks Community Colleges)	
<i>Subtotal</i> .....	44
General Studies .....	36
Electives .....	8
<i>Total for Environmental Chemistry Concentration</i> .....	120

### Environmental Studies Minor

Required Course .....	Semester Hours
GEG 4900 Environmental Seminar (advisor approved) .....	3

Select 6 hours from the following list:

BIO 1010 Ecology for Non-Majors .....	3
BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
CHE 1010 Chemistry and Society .....	3
CHE 1800 Chemistry I .....	4
GEG 1200 Introduction to Environmental Science .....	3
<i>Subtotal</i> .....	6

Select 6 hours from the following list:

ECO 3450 Environmental Economics .....	3
HIS 3880 American Environmental History .....	3
PSC 3230 Environmental Politics .....	3
PSY 3550 Environmental Psychology .....	3
<i>Subtotal</i> .....	6

Select 6 hours of electives (including any courses listed above or below):

BIO 3550 Urban Ecology .....	4
CET 3320 Environmental Impact Statements .....	3



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CHE 3890 Science and Public Policy: Variable Topics .....	1-3
COM 3660 Variable Topics in Industrial and Technical Communications .....	3
GEG 1400 World Resources .....	3
GEG 3400 Water Resources .....	3
GEG 4200 Environmental Policy and Planning .....	3
URS 3000 World Patterns of Urbanization .....	3
Any environmental topics course (advisor approved) .....	3
<i>Subtotal</i> .....	6
<i>Total for Environmental Studies Minor</i> .....	21

## Gerontology Minor

### Educational Goals and Outcomes

Upon completion of the gerontology minor, the student will be able to:

#### *Core Exit Behaviors*

- examine sociological, psychological and biological/physiological theories of aging.
- describe the underlying biological/physiological processes associated with aging and the challenges these present.
- describe the effects of ethics, economics and policy decisions have on the biological/physiological, sociological, psychological and cultural aspects of aging and the resulting challenges.
- investigate the changes occurring in society resulting from our aging population.
- apply aging theories, ethics, economics conditions and aging related policy decisions to a practical experience involving the aged or services for the aged.

#### *Orientation Exit Behavior (based on orientation area selected by the student)*

##### Liberal Arts

- examine attitudes toward older culturally diverse people to discover ways that aging is portrayed.

##### Professional Practice

- provide direct services to older culturally diverse people and their families, administer and plan programs and services or work to modify social institutions and policies.

Students must complete all of the following core course requirements and at least nine (9) credit hours from either the liberal arts orientation or the professional services orientation.

#### Required Core Courses .....Semester Hours

HES 3810

-or-

BIO 3530 Physiology of Aging for Non-Biology Majors.....3

PSY 3270 Adulthood and Aging .....3

SOC 1040 Introduction to Social Gerontology .....3

HES 4520 Internship in Gerontology .....3-6

*Subtotal* .....12-15

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The first three (3) required core courses must be taken prior to selecting courses from an area of orientation. HES 4520 (Internship in Gerontology) must be taken the last semester of minor course work. It may be taken with one other approved course from the orientation options. You must contact the gerontology advisor the semester before you plan to register for this course.

Students must select a minimum of nine (9) credit hours from one of the following orientations. these courses must be approved by the gerontology advisor in the Department of Health Professions.

### Liberal Arts Orientation

LES 2330 Advocacy, Leisure and the Aging Adult .....	3
PSY 2270 Death and Dying .....	3
SOC 3040 Contemporary Issues in Gerontology .....	3
SOC 3100 Death and Dying .....	3
SPE 4760 Communication and the Elderly .....	3

### Professional Services Orientation

HCM 3020 Management Principles in Health Care .....	3
HES 3100 Nutrition and Aging .....	3
HSL 1420 Activity and Fitness Programs for the Elderly .....	2
LES 2330 Advocacy, Leisure and the Aging Adult .....	3
LES 3070 Health and Movement Problems in the Aging Adult .....	3
PSY 2270 Death and Dying .....	3
SWK 3020 Case Management in Social Work Practice .....	4
SWK 3030 Social Work with the Aging .....	4
<i>Total hours for Gerontology Minor.....</i>	<i>21</i>

Students may select a gerontology topics course or an independent study course that deals with aging if it is appropriate for their selected orientation and approved by the gerontology advisor.

## History Department Major for Bachelor of Arts

Required Courses .....	Semester Hours
HIS 1010 Western Civilization to 1715 .....	3
HIS 1020 Western Civilization since 1715 .....	3
HIS 1210 American History to 1865 .....	3
HIS 1220 American History since 1865 .....	3
HIS 4820 Senior Seminar .....	3
<i>Total .....</i>	<i>15</i>

### Electives

A minimum of 23 additional semester hours in history is required, 18 of which must be upper-division. No more than 4 semester hours in HIS 3890 readings courses may be counted toward the major without prior written approval from the department.

### Course Distribution

In the minimum of 23 additional semester hours required, students must include at least 3 semester hours in each of the broad areas of history: United States, European, Developing World.

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### Grade Average

Students majoring in history must maintain at least a 2.0 average in their history courses.

### Advising

History majors should consult with a departmental advisor to select the courses in other disciplines that complement their area of concentration in the major.

### Minor in History

There are three different concentrations available to students seeking a history minor: regular history concentration, American West history concentration, 20th-century studies history concentration.

### Regular History Concentration

Required Courses .....	Semester Hours
HIS 1010 Western Civilization to 1715 .....	3
HIS 1020 Western Civilization since 1715 .....	3
HIS 1210 American History to 1865 .....	3
HIS 1220 American History since 1865 .....	3
<i>Total</i> .....	12

A minimum of 9 additional semester hours in history is required. The hours must be upper-division and should be selected in consultation with a departmental advisor. No more than 2 semester hours in HIS 3890 readings courses may be counted toward the minor without prior written approval from the department.

### American West History Concentration

Required Courses .....	Semester Hours
HIS 1100 American West .....	3
HIS 1110 Colorado History I .....	3
HIS 1210 American History to 1865 .....	3
HIS 1220 American History since 1865 .....	3
<i>Total</i> .....	12

### Electives

A minimum of 9 additional history semester hours treating the American West is required, all of which must be upper-division.

### Twentieth-Century Studies History Concentration

Required Courses .....	Semester Hours
HIS 1220 American History since 1865 .....	3
HIS 2010 Contemporary World History .....	3
<i>Total</i> .....	6

Electives: A minimum of 15 additional hours treating 20th-century history is required, 9 of which must be upper-division.

### Grade Average

Students minoring in history must maintain a 2.0 average in their history courses.

### Secondary School Education Licensure in Social Sciences

Students majoring in history may combine their major with other courses in the social sciences and in education to earn secondary education licensure. The requirements of this program are included under the Secondary Education Department section of this *Catalog*.

## 2000-2001 College Catalog

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Prelaw Courses

Several history courses are of particular importance to legal studies. These include HIS 1210, HIS 1220, HIS 3460, and HIS 3680. Students interested in prelaw courses are urged to contact the department advisor.

### Minor in Interdisciplinary Legal Studies

The interdisciplinary legal studies minor is designed to show students how the various disciplines in the humanities and social sciences treat questions of law and justice. The interdisciplinary legal studies minor is not a prelaw preparatory program or paralegal training. Its goal is to cross disciplines so that students can understand how the humanities and social sciences illuminate the principles, practices, and policies of the law.

Required Courses .....	Semester Hours
CJC 2000 Introduction to Legal Studies .....	3
ENG 3700 Literature and the Law .....	3
HIS 3680 The Court in Crisis .....	3
PHI 3430 Philosophy of Law .....	3
PSC 3120 American Constitutional Law .....	3
SOC 3550 Sociology of Law .....	3
xxx xxx Seminar in Legal Topics (interdisciplinary - team-taught course) .....	3
<i>Subtotal</i> .....	21

Students will select one law-related course from the courses listed below or approved by the interdisciplinary legal studies minor advisor:

MGT 2210 Legal Environment of Business I .....	3
MGT 3220 Legal Environment of Business II .....	3
CJC 2100 Substantive Criminal Law .....	3
HIS 3460 The Constitution and the New Nation, 1787-1848 .3	
SOC 3500 Criminology .....	3
WMS 3310 Women and the Law .....	3
<i>Total</i> .....	24

### Holistic Health and Wellness Education Multi-Minor

The holistic health and wellness education multi-minor offers an area of concentration for students who recognize the increased emphasis on wellness in several professional fields and/or for health conscious individuals who wish to establish a self-enhancement program. The multi-minor is designed to complement a major chosen by a student that is relevant to the student's career goals. For additional information, please contact the Health Professions Department at 303-556-3130, South Classroom 226.

The multi-minor comprises 21 hours of study:

Required Courses .....	Semester Hours
HES 1050 Dynamics of Health .....	3
HES 2040 Introduction to Nutrition .....	3
HES 2750 Introduction to Holistic Health .....	3
HPS 1640 Physical Fitness Techniques and Programs .....	2
HSW 3750 Holistic Health and High-Level Wellness .....	4
PHI 3220 Personal Knowledge and Professional Growth .....	3

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Electives* .....	3
Total .....	21

*\*Practical experience is an integral part of this minor and Individualized Degree Program. Students are urged to enhance their education through fieldwork. This can be achieved through practicums, internships, and cooperative education offerings in one of the above listed departments or by using these elective hours.*

## Journalism Department

### Journalism Major for Bachelor of Arts

The Journalism Department prepares students for careers in news and information media by providing them with a sound education in the basics of journalism and/or public relations. The department has one of the strongest journalism teaching staffs in the state. All full-time and part-time faculty have worked in the journalism and/or public relations fields.

The Journalism Department is one of two journalism schools in the country to offer an internship program that allows students to get hands-on experience in political reporting. *The Capitol Reporter* is open to upper-division students, who spend an entire semester covering the Colorado legislature for credit. The editor is a full-time staff member, and the weekly newspaper is highly regarded by legislators, lobbyists, and the college community.

Proficiency in standard written English is a prerequisite for all journalism courses. Students are required to complete ENG 1010 before taking any journalism course beyond JRN 1010. Proficiency in typing is required for all courses beyond JRN 1010.

A list of suggested courses that should be taken for General Studies has been established by the department. Students should also select an advisor immediately to begin planning their course of study.

Students may not select both a major and minor from the Journalism Department.

Students may also take an assessment test toward the end of their studies to ensure they have reached the proficiency level necessary to pursue a career in journalism or public relations.

The Journalism Department offers a journalism major with three emphases - [news/editorial](#), [photojournalism](#), and [public relations](#) - and minors in print journalism and public relations.

### Journalism Major for Bachelor of Arts

Core Courses for Journalism Major and Minors .....	Semester Hours
JRN 1010 Introduction to Journalism and Mass Media .....	3
JRN 1100 Beginning Reporting and News Writing .....	3
JRN 1200 Beginning News Editing .....	3
JRN 2100 Intermediate Reporting and News Writing .....	3
JRN 4500 Ethical and Legal Issues in Journalism .....	3
Subtotal .....	15

### News/Editorial Concentration

Journalism Core .....	15
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### Required Courses

JRN 2200 Intermediate News Editing .....3

### One or more of the following:

JRN 3100 Publication Practicum .....3

JRN 3980 Cooperative Education .....3

JRN 4150 The Capitol Reporter: Writing/Reporting .....6

JRN 4160 The Capitol Reporter: Editing/Design .....3

### And three of the following (each course is one credit hour):

JRN 3500 Topics in Journalism .....3

*Subtotal* .....9-12

### Electives

JRN 3150 Contemporary Issues .....3

JRN 3400 Feature Article Writing for Newspapers .....3

JRN 3600 Photojournalism I .....3

JRN 4100 Advanced Reporting .....3

JRN 4200 Principles of Newspaper and Magazine Design .....3

JRN 4400 Feature Article Writing for Magazines .....3

JRN 4600 Photojournalism II .....3

*Subtotal* .....12-15

*Total hours required* .....39

## Photojournalism Concentration

Journalism Core .....15

### Required Courses

ART 1200 Design Processes and Concepts I .....3

ART 2200 Beginning Photography .....3

JRN 2200 Intermediate News Editing .....3

JRN 3600 Photojournalism I .....3

JRN 4600 Photojournalism II .....3

*Subtotal* .....15

### Electives

ART 3200 Intermediate Photography .....3

ART 3230 Color Photography .....3

ART 3410 Computer Graphics .....3

JRN 3100 Publication Practicum .....3

JRN 3150 Contemporary Issues .....3

JRN 3400 Feature Article Writing for Newspapers .....3

JRN 3500 Topics in Journalism .....1

JRN 4100 Advanced Reporting .....3

JRN 4150 The Capitol Reporter: Writing/Reporting .....6

JRN 4160 The Capitol Reporter: Editing/Design .....3

JRN 4200 Principles of Newspaper and Magazine Design .....3

JRN 4400 Feature Article Writing for Magazines .....3

*Subtotal* .....9

*Total* .....39

## Public Relations Concentration

Journalism Core .....15

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### Required Courses

JRN 2700 Fundamentals of Public Relations .....	3
JRN 3700 Public Relations Writing .....	3
JRN 3980 Cooperative Education .....	3
JRN 4700 Public Relations Strategic Planning .....	3
MKT 3000 Principles of Marketing .....	3
SPE 3440 Television Production .....	3
SPE 3100 Business and Professional Speaking .....	3
SPE 4100 Techniques of Persuasion .....	3
<i>Subtotal</i> .....	24

### Electives

COM 2420 Basic Corporate Videotape Production .....	3
COM 2430 Introduction to Technical Media .....	3
COM 2460 Presentation Graphics .....	3
COM 3440 Corporate Scriptwriting for Film and Television .....	3
JRN 3400 Feature Article Writing for Newspapers .....	3
JRN 3500 Topics in Journalism .....	1
JRN 3550 Print Media Advertising Sales .....	3
JRN 3600 Photojournalism I .....	3
MKT 3110 Advertising Management .....	3
MKT 3120 Promotional Strategy .....	3
SPE 1700 Communication Theory .....	3
SPE 2400 Introduction to Radio and Television Broadcasting .....	3
SPE 3130 Conference Leadership .....	3
SPE 3430 Radio-Television Announcing .....	3
SPE 3450 Broadcast Journalism: Radio .....	3
SPE 3480 Workshop in Radio Production .....	3
SPE 3740 Psychology of Communication .....	3
SPE 4450 Broadcast Journalism: Television .....	3
SPE 4480 Seminar Practicum in Broadcasting .....	3
SPE 4490 Effects of Radio-Television on Contemporary Life .....	3
<i>Subtotal</i> .....	6
<i>Total</i> .....	45

## Journalism Minor .....Semester Hours

Journalism Core .....	15
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### Required Courses

JRN 2200 Intermediate News Editing .....	3
JRN 3500 Topics in Journalism .....	1
<i>Subtotal</i> .....	4

### Electives

JRN 3100 Publication Practicum .....	3
JRN 3150 Contemporary Issues .....	3
JRN 3400 Feature Article Writing for Newspapers .....	3
JRN 3600 Photojournalism I .....	3
JRN 4100 Advanced Reporting .....	3
JRN 4200 Principles of Newspaper and Magazine Design .....	3
JRN 4400 Feature Article Writing for Magazines .....	3
JRN 4600 Photojournalism II .....	3
<i>Subtotal</i> .....	6
<i>Total</i> .....	25

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### Public Relations Minor .....Semester Hours

Journalism Core .....15

#### Required Courses

JRN 2700 Fundamentals of Public Relations .....3

JRN 3700 Public Relations Writing .....3

JRN 3980 Cooperative Education .....3

JRN 4700 Public Relations Strategic Planning .....3

*Subtotal* .....12

*Total* .....27

## Land Use Program

The land use major is very broad in scope and can be used for a number of career objectives and graduate school programs. Opportunities exist in such areas as planning, cartography, geographic information systems (GIS), air photo and satellite imagery interpretation, environmental and resource management, travel and transportation, mining and mineral resources, residential and industrial development, recreational land use, population analysis, and a variety of other interrelated fields. This program provides a solid foundation for continued study at the graduate level. Contact the Earth and Atmospheric Sciences Department for additional information.

### Land Use Major for Bachelor of Arts

Required Core .....Semester Hours

MTH 1210 Introduction to Statistics .....4

GEG 1220 Map Use .....2

Choose one from each of the following sets:

GEG 1000 World Regional Geography .....3

GEG 1300 Introduction to Human Geography .....3

GEG 1100 Introduction to Physical Geography .....3

GEL 1010 General Geology .....4

GEG 2250 Introduction to Geographic Information Systems ...3

GEG 3210 Introduction to Cartography .....4

GEG 3610 Principles of Land Use Planning .....3

GEL 4010 Environmental Hazards and Planning .....3

GEG 4950 Internship in Geography .....2

GEL 4950 Internship in Geology .....2

#### Senior Experience

GEG 4960 Global Environmental Challenges .....3

GEL 4960 Environmental Field Studies .....3

*Core Total* .....23-25

*Concentration Total* .....19-21

*Land Use Major Total* .....42-46

### Required Concentration for the Land Use Major

In addition to the required land use core, each student must complete one of the concentrations listed below. Within the concentration, students must complete a set of required courses plus electives. Electives are chosen in consultation with a departmental advisor and are designed to provide an integrated and well-planned pattern of courses related to the student's educational and career goals.



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### Urban Land Use Concentration

Required Courses	Semester Hours
GEG 3360 Geography of Economic Activity	3
GEG 3600 Urban Geography	3
GEG 4610 Urban and Regional Planning	3
URS 4500 Cities of the Future	3
Urban Land Use Electives*	7
<b>Subtotal</b>	<b>19</b>

*\*Choose a minimum of 7 semester hours of elective credit, in consultation with a departmental advisor.*

### Geographic Information Systems Concentration

Required Courses	Semester Hours
GEG 2250 Introduction to GIS	
-or-	
GEG 3210 Cartography	4
(whichever course was not taken as part of the core)	
GEG 3220 Intermediate Cartography	3
GEG 3250 Computer Cartography	3
GEG 4850 Advanced Geographic Information Systems	3
CSS 1010 Introduction to Computer Science	3
Geographic Information Systems Electives*	6
<b>Subtotal</b>	<b>21</b>

*\*Choose a minimum of 6 semester hours of elective credit, in consultation with a departmental advisor.*

### Environment and Resources Concentration

Required Courses	Semester Hours
GEG 1200 Introduction to Environmental Science	3
GEG 1400 World Resources	3
GEG 4840 Remote Sensing	3
ECO 3450 Environmental Economics	3
Environment and Resources Electives*	7
<b>Subtotal</b>	<b>19</b>

*\*Choose a minimum of 7 hours of elective credit, in consultation with a departmental advisor.*

### Geology Concentration

Required Courses	Semester Hours
GEL 3120 Advanced Geomorphology	4
GEL 3420 Soil Resources	4
GEL 3440 Energy and Mineral Resources	4
GEL 4000 Environmental Geology	3
Geology Electives*	5
<b>Subtotal</b>	<b>20</b>

*Note: students selecting this concentration will be required to minor in geology.*

*\*Choose a minimum of 5 semester hours of elective credit, in consultation with a departmental advisor.*

## 2000-2001 College Catalog

### Required Minor

Except for the geology concentration, the field of study selected as a minor is at the option of the student.

### Land Use Major for Bachelor of Science

To fulfill the requirements for the bachelor of science with a major in land use, a student must complete the requirements as listed above under the bachelor of arts; however, the student must minor in one of the sciences, or science-oriented fields as approved by the Earth and Atmospheric Sciences Department.

### Minor in Geology

Required Core .....	Semester Hours
GEL 1010 General Geology .....	4
Any 1000-level GEL Course .....	3-4
GEL 3050 Mineralogy and Petrology .....	4
GEL 3060 Stratigraphy and Structure .....	4
Additional 3000- or 4000-level GEL Courses .....	8
<i>Total</i> .....	23-24

### Minor in Geography

Required Courses .....	Semester Hours
GEG 1120 Orienteering .....	1
GEG 1220 Map Use .....	2
GEG 1300 Introduction to Human Geography .....	3
GEG 1230 Weather and Climate	
-or-	
MTR 1400 Introduction to Meteorology .....	3
<i>Subtotal</i> .....	9

### Structured Electives

A minimum of 13 additional hours must be selected in consultation with a department advisor. At least one course must be selected from each of the following groups to satisfy this requirement.

#### Physical

GEG 1100 Introduction to Physical Geography .....	3
GEG 1240 Landforms of the United States .....	3
GEL 1010 General Geology .....	4

#### Resources and Environment

GEG 1200 Introduction to Environmental Science. ....	3
GEG 1400 World Resources .....	3
GEG 3400 Water Resources .....	3
GEL 3420 Soil Resources .....	4
GEL 3440 Energy and Mineral Resources .....	4

#### Spatial Analysis and Planning

GEG 3600 Urban Geography .....	3
GEG 3610 Principles of Land Use Planning .....	3
GEG 3620 Population, Resources and Land Use .....	3
GEG 3630 Transportation Planning and Land Use .....	3
GEG 4620 Residential Land Use Patterns .....	3

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### Urban Studies Regional Geography

GEG 1000 World Regional Geography .....	3
GEG 2020 Geography of Colorado. ....	3
GEG 2100 Geography of Latin America .....	2
GEG 2200 Geography of the United States. ....	3
GEG 3000 Historical Geography of the United States .....	3
Field study in either geography or geology .....	1
<i>Subtotal</i> .....	13
<i>Total</i> .....	22

## Mathematical and Computer Sciences Department

The Mathematical and Computer Sciences Department offers bachelor of arts and bachelor of science degrees in mathematics and a bachelor of science degree in computer science. The department offers both a mathematics and computer science minor, both of which complement such majors as engineering technology, the other sciences, and economics. In addition, the minor program in computer science complements the mathematics major. See [Computer Science](#).

In addition to the general mathematics major, the department offers a mathematics major in five concentrations encompassing a variety of significant mathematical ideas. These concentrations give the student background for graduate school in theoretical mathematics, as well as background for both graduate school and employment in mathematically related fields including applied mathematics, scientific computing, probability and statistics, and mathematics education. The degree program in computer science adheres to nationally recognized standards and provides students with a more technical alternative to the mathematics concentration in computer science.

All students who are considering a major or minor in mathematics or computer science are expected to consult with faculty for advising.

### Major in Mathematics for Bachelor of Arts or Bachelor of Science

The Department of Mathematical and Computer Sciences offers coursework leading to the bachelor of arts or bachelor of science degree. The student may choose either degree.

A degree in mathematics is useful in a variety of professional fields including, among many others, business, economics, computer science, government, education, technology, and science. Students are invited to consult with the department concerning career options.

All majors in mathematics are required to complete the following basic core of courses (with a required minimum grade of "C" in each of these courses). The department strongly recommends that students interested in the applied mathematics concentration take sections of calculus using Mathematica.

Basic Mathematics Core .....	Semester Hours
MTH 1410* Calculus I .....	4
MTH 2410* Calculus II .....	4
MTH 2420* Calculus III .....	4
MTH 3100 Introduction to Mathematical Proofs .....	3
<i>Total</i> .....	15

*\*Some sections of this course have a Mathematica component.*

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For mathematics majors, except those in mathematics education, there is a one-hour project-oriented course at the senior level that synthesizes the material in the major. Each major is also required to take a Senior Experience course and to complete a minor. The following mathematics courses have been approved as Senior Experience courses: MTH 4210, MTH 4410, MTH 4480, and MTH 4640.

The student may choose to complete a mathematics major in one of the following concentrations:

- [General Applied Mathematics](#)
- **Computer Science Mathematics Education**
- **Probability and Statistics Theoretical Mathematics**
- **The requirements for each are as follows.**

### General Concentration

Required Courses .....Semester Hours  
Basic Core .....15

One of the following three courses:

CSI 1300 Computer Science 1 .....4  
CSS 1247 Introduction to Programming: Visual Basic.....4  
MTH 1510 Computer Programming: FORTRAN .....4  
MTH 4390 Mathematics Senior Seminar .....1  
*Subtotal* .....20

A minimum of 20 credit hours chosen from MTH 2140\*, or any upper-division mathematics courses. The 20 credit hours must include at least 18 upper-division hours, at least one Senior Experience course in mathematics, and one of the following sequences:

MTH 3110 and MTH 3140\* OR MTH 3210 and MTH 3220 OR MTH 3420 and MTH 3440  
OR MTH 4210 and MTH 4220 OR MTH 4410 and MTH 4420 OR MTH 4480 and MTH 4490

*Subtotal* .....20  
*Total* .....40

*\*No credit is allowed for MTH 2140 if MTH 3140 is also taken.*

### Applied Mathematics Concentration

The concentration in applied mathematics is designed to meet the needs of the scientific, technical, and computer-based economy and to prepare the student for graduate study. The department has made every effort to have state-of-the-art technologies and practices available for student use and strongly recommends that students interested in this concentration take sections of calculus using Mathematica. A grade of "C" or better is required in each course included in the major.

Required Courses .....Semester Hours  
Basic Core .....15  
MTH 1510 Computer Programming: FORTRAN .....4  
MTH 3140 Linear Algebra .....4  
MTH 3210 Probability and Statistics .....4  
MTH 3420 Differential Equations .....4  
MTH 3440 Partial Differential Equations .....4

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MTH 4480 Numerical Analysis I .....	4
MTH 4490 Numerical Analysis II .....	4
MTH 4590 Applied Mathematics Senior Seminar .....	1
<i>Total</i> .....	44

It is recommended that students take one or more of the following courses in addition to the requirements: MTH 3220, MTH 3250, MTH 3470, MTH 4210, MTH 4410, MTH 4420, and MTH 4450.

### Computer Science Concentration

This concentration is designed for the student who wants to combine applied mathematics or statistics with computer science. The required computer science minor includes the core courses for the computer science major. A grade of "C" or better is required in each course included in the major and in the required computer science minor.

Required Courses .....	Semester Hours
Core .....	15
MTH 3140 Linear Algebra .....	4
MTH 3210 Probability and Statistics .....	4
MTH 3420 Differential Equations .....	4
MTH 4480 Numerical Analysis I .....	4
<i>Subtotal</i> .....	16

Two of the following courses:

MTH 3220 Design of Experiments .....	4
MTH 3440 Partial Differential Equations .....	4
MTH 4210 Probability Theory .....	4
MTH 4220 Stochastic Processes .....	4
MTH 4490 Numerical Analysis II .....	4
<i>Subtotal</i> .....	8

One of the following courses:

MTH 4290 Senior Statistics Project .....	1
MTH 4390 Mathematics Senior Seminar .....	1
MTH 4590 Applied Mathematics Senior Seminar ...	1
<i>Subtotal</i> .....	1
<i>Total</i> .....	40

### Computer Science Minor (required for the Computer Science Concentration)

Required Courses .....	Semester Hours
CSI 1300 Computer Science 1 .....	4
CSI 2300 Computer Science 2 .....	4
CSI 2400 Computer Organization and Assembly Language .....	4
CSI 3100 Discrete Mathematics.....	4
CSI 3300 Foundations of File Structures .....	4

One of the following courses:

CSI 4250 Software Engineering Principles .....	4
CSI 4300 Advanced Data Structures and Algorithm Analysis .....	4
<i>Total Hours Required for Minor</i> .....	24

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### Mathematics Education Concentration

The concentration in mathematics education is for the preparation of classroom teachers of mathematics. Students seeking teacher licensure in mathematics must satisfy the professional education program requirements of the college for pre-service secondary mathematics teachers in addition to all of the mathematics major requirements. Content competency must be shown for mathematics course credit that is ten or more years old. A grade of "C" or better is required in all courses included in the major.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

Required Courses .....	Semester Hours
Basic Core .....	15

One of the following three courses:

CSI 1300 Computer Science 1 .....	4
CSS 1247 Introduction to Programming: Visual Basic .....	4
MTH 1510 Computer Programming: FORTRAN .....	4
<i>Subtotal</i> .....	4
MTH 3110 Abstract Algebra I .....	3
MTH 3140 Linear Algebra .....	4
MTH 3210 Probability and Statistics .....	4
MTH 3470 Introduction to Discrete Mathematics and Modeling .....	3
MTH 3650 Foundations of Geometry .....	3
MTH 4600 Seminar in Problem Solving .....	1
MTH 4640 History of Mathematics .....	4
<i>Total</i> .....	41

### Professional Education Sequence in Secondary Mathematics (to complement the mathematics education concentration)

Students seeking teaching licensure must take the following sequence of courses and be admitted to the teacher education program (see page 180). Students should pay particular attention to corequisites and prerequisites.

Required Courses .....	Semester Hours
EDS 3110 <sup>a</sup> Processes of Education in Multicultural Urban Secondary Schools .....	3
EDS 3120 <sup>a</sup> Field Experiences in Multicultural Urban Secondary Schools .....	3
EDS 3200 Educational Psychology Applied to Teaching .....	3
EDS 3210 <sup>b</sup> Secondary School Curriculum and Classroom Management .....	3
EDS 3222 <sup>b</sup> Field Experience in Mathematics Teaching, Materials Construction, and Classroom Management .....	2
EDS 4290 <sup>d</sup> Student Teaching and Seminar: Secondary 7-12 .....	8
EDT 3610 <sup>c</sup> Introduction to Education Technology .....	2
MTL 3620 Mathematics of the Secondary Curriculum .....	4
MTL 3630 <sup>b</sup> Teaching Secondary Mathematics .....	3
MTL 3638 <sup>b</sup> Secondary Mathematics Field Experience .....	2
MTL 4698 <sup>d</sup> Secondary Mathematics Student Teaching .....	4
RDG 3280 Teaching of Reading and Writing in the Content Area .....	4
SED 3600 The Exceptional Learner in the Classroom .....	3
<i>Total</i> .....	44

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<sup>a</sup> These two courses must be taken concurrently.

<sup>b</sup> These four courses must be taken concurrently.

<sup>c</sup> Although EDT 3610 is required, it is expected that Mathematics Education majors will test out of this class by demonstrating the expected outcomes.

<sup>d</sup> These two courses must be taken concurrently.

### Probability and Statistics Concentration

The concentration in probability and statistics stresses the application of the principles and methods of statistics and probability in the biological, physical, and social sciences and engineering. This concentration also prepares the student for graduate study. A grade of "C" or better is required in all courses included in the major.

Required Courses	Semester Hours
Basic Core	15
MTH 1510 Computer Programming: FORTRAN	4
MTH 2140 Computational Matrix Algebra*	2
MTH 3210 Probability and Statistics	4
MTH 3220 Design of Experiments	4
MTH 3250 Optimization Techniques I	4
MTH 4210 Probability Theory	4
<i>Subtotal</i>	22

One of the following two courses:

MTH 4220 Stochastic Processes	4
MTH 4230 Applied and Computational Statistics	4
<i>Subtotal</i>	4
MTH 4290 Senior Statistics Project	1
<i>Total</i>	42

\*MTH 3140 may be substituted for MTH 2140.

### Theoretical Mathematics Concentration

The concentration in theoretical mathematics prepares the student for further specialized study at the graduate level as well as being adaptable to positions in business, industry, and government. A grade of "C" or better is required in all courses included in the major.

Required Courses	Semester Hours
Core	15
MTH 2530 Introduction to Mathematica	2
MTH 3110 Abstract Algebra I	3
MTH 3140 Linear Algebra	4
MTH 4390 Mathematics Senior Seminar	1
MTH 4410 Advanced Calculus I	4
MTH 4420 Advanced Calculus II	3
A minimum of 7 credit hours chosen from any upper-division mathematics courses	7
<i>Total</i>	39

### Minor in Mathematics\*

Required Core	Semester Hours
MTH 1410 Calculus I	4
MTH 2410 Calculus II	4

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One of the following courses:

CSI 1300 Computer Science 1 .....	4
CSS 1247 Introduction to Programming: Visual Basic ....	4
MTH 1510 Computer Programming: FORTRAN .....	4
<i>Subtotal</i> .....	12

### Electives

A minimum of 10 hours at least 7 of which must be upper-division.

These 10 hours may include MTH 2420, any upper-division mathematics course, or any course approved by the Mathematical and Computer Sciences Department.

Electives .....	10
<i>Total</i> .....	22

*\*Note: A major that requires a minor in mathematics can specify the courses for such a minor and the total hours required may exceed the 22 hour total listed above. Please consult the listings included with those majors.*

## Meteorology Program

Meteorology is the science of the atmosphere. Modern meteorologists are involved in weather observing, forecasting, research, and dissemination of weather information to the public. Meteorologists also study global weather and climate, and investigate the influence that human beings exert on Earth's climate. The forecasting laboratory includes a computerized observing station, daily weather maps, satellite images, and access to the national weather database. The bachelor of science degree in meteorology follows American Meteorological Society recommendations for undergraduate programs. Students should contact a meteorology faculty member to discuss degree programs, career opportunities, and graduate school options. Contact the Earth and Atmospheric Sciences Department for additional information.

### Meteorology Major for Bachelor of Science

Required Courses .....	Semester Hours
MTR 2400 Introduction of Atmospheric Science .....	4
MTR 2410 Weather Observing Systems .....	3
MTR 3400 Synoptic Meteorology .....	4
MTR 3430 Atmospheric Thermodynamics .....	3
MTR 3440 Physical Meteorology .....	3
MTR 3450 Dynamic Meteorology .....	3
MTR 4400 Advanced Synoptic Meteorology .....	3
MTR 4440 Climatology .....	3
MTR 4500 Mesometeorology .....	3
MTR 4600 Senior Research Seminar .....	3
Elective Meteorology Courses .....	8
<i>Subtotal</i> .....	40

### Required Mathematics Minor

MTH 1410 Calculus I .....	4
MTH 1510 Computer Programming: FORTRAN	
-or-	
CSI 1300 Computer Science 1 .....	4
MTH 2410 Calculus II .....	4
MTH 2420 Calculus III .....	4
MTH 3210 Probability and Statistics .....	4



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MTH 3420 Differential Equations .....	4
<i>Subtotal</i> .....	24

### Additional Course Requirements\*

ENG 1010 Freshman Composition: The Essay .....	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation .....	3
PHY 2311, 2321 General Physics I and Lab .....	5
PHY 2331, 2341 General Physics II and Lab .....	5
CHE 1800 General Chemistry I .....	4
Level I Communications .....	3
Level II Arts and Letters .....	6
Level II Historical .....	3
Level II Social Science .....	6
<i>Subtotal</i> .....	38
Approved Electives .....	18
<i>Total</i> .....	120

*\*Students must consult a faculty advisor regarding General Studies requirements.*

## Minor in Meteorology

Required Courses .....	Semester Hours
MTR 2400 Introduction to Atmospheric Science .....	4
MTR 2410 Weather Observing Systems .....	3
MTR 3400 Synoptic Meteorology .....	4
Approved Electives .....	9
<i>Total</i> .....	20

## Modern Languages Department

The Modern Languages Department offers major programs in Spanish and modern languages; minor programs in French, German, and Spanish; and teacher education programs in Spanish and modern languages. Courses in other foreign languages and in occupational or professional fields are offered in order to meet student and community needs. In addition, the department administers several education programs abroad, as well as certificate programs in basic French, German, and Spanish studies and Spanish translation. (For a major in Spanish, see page 150 of this *Catalog*.)

Registration for courses is in accordance with previous preparation. Consequently, students should register for foreign language courses as follows: No previous study, or less than one year in high school-1010; students with one year in high school who feel their background is weak-1010; one semester in college-1020; one year in college-2110 and/or 2310 for German and Spanish and 2010 for French; two years in high school-2110 and/or 2310 for German and Spanish and 2010 for French, or 1020, if needed; three years in high school or one and one-half years in college-2120 and/or 2320 for German and Spanish and 2020 for French; or 2110 and/or 2310 for German and Spanish and 2010 for French, if needed; four years in high school or two years in college-3000-level courses, or 2120 and/or 2320 for German and Spanish and 2020 for French, if needed.

The above regulations may not be applicable if students have had no professional instruction in their chosen foreign language within the past two years. Students can also test if they feel that they have insufficient preparation for the required level or are not sure of that level. Elementary courses do not apply toward the major or minor requirements.

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Students seeking elementary and secondary credentials in French, German, or Spanish must satisfy the teacher education program of MSCD in addition to all of the major requirements. They must also demonstrate sufficient mastery of the target language or languages through an appropriate proficiency exam.

### Modern Languages Major for Bachelor of Arts

The composite modern languages major involves a minimum of 60 hours in any two modern languages. Students pursuing a modern language major do not need a minor.

For the language emphasized, either [French](#), [German](#) or [Spanish](#), students must complete a minimum of 42 hours of coursework at the 2000 level or above. No more than 12 hours may be taken at the 2000 level. (Students preparing for teacher licensure may include the three (3) credits of MDL 4960-Teaching Foreign Languages in the Secondary Schools in the 42 hours if they so desire.) To complete the 60 hour requirement, students must take at least 18 hours at the 2000 level or above in a second language. Students are advised into intermediate and advanced classes in each language on the basis of individual background and need. The minimum 18 hours in the second language must be taken as follows:

#### French

FRE 2010 Intermediate French I .....	3
FRE 2020 Intermediate French II .....	3
FRE 2110 French Reading and Conversation .....	3
FRE 3010 Introduction to Advanced French Studies ...	3
French electives (upper division).....	6
<i>Subtotal</i> .....	18

#### German

GER 2110 German Reading and Conversation .....	3
GER 2120 German Civilization .....	3
GER 2310 German Vocabulary Building and Grammar ...	3
GER 2320 German Composition and Free Writing .....	3
German electives (upper division) .....	6
<i>Subtotal</i> .....	18

#### Spanish

SPA 2110 Intermediate Spanish .....	3
SPA 2120 Spanish Reading and Conversation .....	3
SPA 2310 Spanish Grammar and Composition I .....	3
SPA 2320 Spanish Grammar and Composition II .....	3
Spanish electives (upper division) .....	6
<i>Subtotal</i> .....	18

The remaining hours to complete the 60 hours required must be taken with departmental approval.

### Teacher Licensure

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this Catalog, pages 172-173, and they should stay in regular contact with their advisors.

For students seeking teacher licensure in modern languages (French, German, Spanish), the courses in one of the following concentrations are required in addition to the above requirements.

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### French Concentration for Teacher Licensure

FRE 2010 Intermediate French I .....	3
FRE 2020 Intermediate French II .....	3
FRE 2110 French Reading and Conversation .....	3
FRE 3010 Introduction to Advanced French Studies ....	3
FRE 3110 Survey of French Literature I .....	3
FRE 3120 Survey of French Literature II .....	3
FRE 3150 French Phonetics: Theory and Practice .....	3
FRE 3310 Advanced French Composition and Grammar ....	3
FRE 3320 Advanced Conversation .....	3
FRE 3550 French Historical Perspectives .....	3
FRE 3560 Contemporary Sociocultural Issues .....	3
MDL 4960 Teaching Foreign Languages in the Secondary Schools .....	3

Any 2 of the following:

FRE 4520 Modern French Theater .....	3
FRE 4530 The French Novel .....	3
FRE 4750 Senior Seminar in French Studies .....	3
<i>Total</i> .....	42

### German Concentration for Teacher Licensure

GER 2110 German Reading and Conversation .....	3
GER 2120 German Civilization .....	3
GER 2310 German Vocabulary Building and Grammar .....	3

GER 2320 German Composition and Free Writing .....

GER 3150 German Phonetics: Theory and Practice .....

GER 3210 Survey of German Literature I .....

GER 3220 Survey of German Literature II .....

GER 3230 Contemporary German Writers .....

GER 3300 Advanced German Grammar .....

GER 4200 Major German Authors .....

GER 4210 Advanced Conversation: Present-day Germany .3

German Electives .....

MDL 4960 Teaching Foreign Languages in the Secondary Schools .....	3
<i>Total</i> .....	42

### Spanish Concentration for Teacher Licensure

SPA 2110 Intermediate Spanish .....	3
SPA 2120 Spanish Reading and Conversation .....	3
SPA 2310 Spanish Grammar and Composition I .....	3

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SPA 2320 Spanish Grammar and Composition II .....	3
SPA 3110 Advanced Conversation .....	3
SPA 3140 Advanced Composition .....	3
SPA 3150 Spanish Phonetics: Theory and Practice .....	3
SPA 3200 Culture and Civilization of Spain	
-or-	
SPA 3210 Spanish-American Culture and Civilization	
-or-	
SPA 3220 Folklore and Culture of the Mexican Southwest .....	3
SPA 3250 Introduction to Literary Studies in Spanish .....	3
SPA 3400 Survey of Spanish Literature I	
-or-	
SPA 3410 Survey of Spanish Literature II .....	3
SPA 4010 Advanced Spanish Writing and Grammar I .....	3
SPA 4020 Advanced Spanish Writing and Grammar II .....	3
SPA 4110 Contemporary Spanish Literature	
-or-	
SPA 4120 Contemporary Latin-American Literature .....	3
MDL 4960 Teaching Foreign Languages in the Secondary Schools .....	3
<i>Total</i> .....	42

### Minor in French

Required Courses .....	Semester Hours
FRE 2010 Intermediate French I .....	3
FRE 2020 Intermediate French II .....	3
FRE 2110 French Reading and Conversation .....	3
FRE 3010 Introduction to Advanced French Studies .....	3
FRE 3110 Survey of French Literature I	
-or-	
FRE 3120 Survey of French Literature II .....	3
FRE 3550 French Historical Perspectives	
-or-	
FRE 3560 Contemporary Sociocultural Issues .....	3
French Electives* .....	3
<i>Total</i> .....	21

*\*Must be a course at the 3000- or 4000-level.*

### Minor in German

Required Courses .....	Semester Hours
GER 2110* German Reading and Conversation .....	3
GER 2120* German Civilization .....	3
GER 2310* German Vocabulary Building and Grammar .....	3
GER 2320* German Composition and Free Writing .....	3
<i>Subtotal</i> .....	12

Select 1 of the following literature courses:

GER 3210** Survey of German Literature I .....	3
GER 3220** Survey of German Literature II .....	3
GER 3230** Contemporary German Writers .....	3
<i>Subtotal</i> .....	3

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Select 2 of the following skills courses:

GER 3010 Third-Year German Conversation .....	3
GER 3300 Advanced German Grammar .....	3
GER 3400 German for Business I .....	3
GER 3410 Translation Techniques for Scientific Materials.	3
<i>Subtotal</i> .....	6
<i>Total</i> .....	21

*\*Higher-level course may be substituted with departmental approval.*

*\*\*Fourth-year course may be substituted with departmental approval.*

### Certificate Programs Available:

#### GERMAN TRANSLATION PROGRAM

GER 3300 Advanced German Grammar .....	3
GER 3400 German for Business I .....	3
GER 3410 Translation Techniques for Scientific Materials ....	3
GER 4020 Advanced German Composition .....	3
GER 4410 Advanced Translation Techniques .....	3

For prerequisites and more information call Dr. Gudrun Clay, 303-556-2909

#### SPANISH TRANSLATION PROGRAM

SPA 3140 Advanced Composition .....	3
SPA 3330 Spanish Social and Commercial Correspondence .....	2
Three courses customized to fit the concentration area of the student .....	9

For prerequisites and more information call Dr. Conway Olmsted, 303-556-2908.

#### BASIC COMPETENCY IN FRENCH

FRE 1010 Elementary French I .....	5
FRE 1020 Elementary French II .....	5
FRE 2010 Intermediate French I .....	3
FRE 2020 Intermediate French II .....	3
FRE 2110 French Reading and Conversation .....	3

For more information call Dr. Ann Williams-Gascon or Alain D. Ranwez, 303-556-3011.

#### BASIC COMPETENCY IN GERMAN

GER 1010 Elementary German I .....	5
GER 1020 Elementary German II .....	5
GER 2110 German Reading and Conversation .....	3
GER 2120 German Civilization .....	3
GER 2310 German Vocabulary Building and Grammar .....	3

For more information call Dr. Gudrun Clay, 303-556-2909

#### BASIC COMPETENCY IN SPANISH

SPA 1010 Elementary Spanish I .....	5
SPA 1020 Elementary Spanish II .....	5
SPA 2110 Intermediate Spanish .....	3
SPA 2120 Spanish Reading and Conversation .....	3

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SPA 2310 Spanish Grammar and Composition I .....	3
SPA 2320 Spanish Grammar and Composition II .....	3

For more information, call Dr. Conway Olmsted, 303-556-2908.

## Music Department

The Metropolitan State College of Denver is an accredited institutional member of the National Association of Schools of Music. The Music Department offers a bachelor of arts degree in music, a bachelor of arts degree in music education, a bachelor of music degree in music performance, and a minor in music. The course requirements for the bachelor of arts degree in music may be obtained from the Department of Music.

The department also offers courses specifically designed for non-music students wishing to enhance their general understanding and enjoyment of music. Musically talented students from all areas of the college are encouraged to participate in the wide variety of large and small music ensembles, including band, orchestra, choir, and chamber music.

The majors in music education and music performance are professional degree programs designed for students wishing to prepare themselves for careers as music teachers or performers. All students majoring in music, music education, or music performance must have a "C" or above in all courses required for the major. Students pursuing these majors are not required to complete a minor for graduation.

The music education degree program prepares students for careers teaching instrumental and/or choral music at levels K-12. To be admitted to this program, students must pass the Music Education Entrance Examination. By taking an additional 16 semester hours beyond the bachelor's degree (EDU 4190 and EDS 4290), the student becomes eligible for K-12 licensure in the State of Colorado. With these additional 16 hours, this degree program is approved by the Colorado State Department of Education and has full accreditation by the National Council for the Accreditation of Teacher Education. Students seeking teaching credentials in music must pass the Music Education Comprehensive Examination and must also satisfy all applicable requirements of the teacher education and licensure programs in the School of Professional Studies.

The music performance degree program prepares students for further graduate study or for careers as performers or private studio teachers. To be admitted to this program, students must demonstrate the capability of developing a high level of musicianship in performance by passing the Music Performance Audition upon completion of MUS 1720, Private Instruction II.

Further information, including examination policies, procedures, and requirements, is provided in the departmental publication titled Advising Information. All music majors and minors should familiarize themselves with this publication.

New and transfer students wishing to major or minor in music should be prepared to take placement examinations in the areas of music theory and music history and to perform an audition in their primary performance area. For placement and audition appointments, contact the Music Department at least two weeks prior to the beginning of the semester.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

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### Music Education Major for Bachelor of Arts

Core Requirements for all Music Education Majors .....	Semester Hours
MUS 1110 Music Theory I .....	3
MUS 1120 Music Theory Lab I .....	1
MUS 1130 Music Theory II .....	3
MUS 1140 Music Theory Lab II .....	1
MUS 2110 Music Theory III .....	3
MUS 2120 Music Theory Lab III .....	1
MUS 2130 Music Theory IV .....	3
MUS 2140 Music Theory Lab IV .....	1
MUS 1210 European Music Literature .....	3
MUS 1220 World Music Literature .....	3
MUS 3210 Music History I .....	3
MUS 3220 Music History II .....	3
MUS 1710 Private Instruction I (Primary Performance Area) .....	2
MUS 1720 Private Instruction II (Primary Performance Area) .....	2
MUS 2710 Private Instruction III (Primary Performance Area) .....	2
MUS 2720 Private Instruction IV (Primary Performance Area) .....	2
MUS 3710 Private Instruction V (Primary Performance Area) .....	2
MUS 3720 Private Instruction VI (Primary Performance Area) .....	2
MUS 161A Class Voice I .....	1
MUS 161B* Class Piano I .....	1
MUS 162B* Class Piano II .....	1
MUS 261B* Class Piano III .....	1
MUS 262B* Class Piano IV .....	1

*\*Note: Students whose primary performance area is piano may elect another area of study in place of class piano; however, they still must pass the Piano Proficiency Examination before enrolling in MUS 3520 or MUS 3530.*

Select 10 hours from the following:\*\*

MUS 2810** Ensemble .....	1
MUS 3810** Ensemble .....	1

*\*\*Note: Ensembles must be chosen from those appropriate to the student's concentration: choral majors must enroll in at least 8 hours of choral ensembles and instrumental majors must enroll in at least 8 hours of instrumental ensembles. Students majoring in music education must enroll in an ensemble during each semester of full-time residence except when student teaching.*

MUS 3150 Instrumental and Choral Scoring and Arranging .....	3
MUS 3410 String Techniques and Materials .....	2
MUS 3420 Guitar Techniques and Materials .....	2
MUS 3450 Brass Techniques and Materials .....	2
MUS 3460 Percussion Techniques and Materials .....	2
MUS 3510 Basic Conducting .....	2
MUS 4330 Elementary School Music Methods and Materials .....	2
MUS 4390 Supervised Field Experience: MUS 4330 .....	1
MUS 4340 Secondary School Music Methods and Materials .....	2
MUS 4390 Supervised Field Experience: MUS 4340 .....	1
RDG 3280 Teaching of Reading and Writing in the Content Areas .....	4
EDU 3100 Social Foundations and Multicultural Education .....	5
EDS 3200 Educational Psychology Applied to Teaching .....	3

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SED 3600 The Exceptional Learner in the Classroom .....	3
<i>Total</i> .....	89

In addition to the above core requirement, music education majors must select one of the following emphases:

### Choral Concentration

MUS 1400 Vocal Diction .....	3
MUS 3520 Choral Conducting and Literature .....	3
MUS 4420 Vocal Pedagogy .....	3
<i>Total</i> .....	9

### Instrumental Concentration

MUS 3430 Woodwind Techniques and Materials .....	2
MUS 3480 Marching Band Techniques and Materials .....	2
MUS 3530 Instrumental Conducting and Literature .....	3
<i>Total</i> .....	7

### Music Performance Major for Bachelor of Music

Core Requirement for all Music Performance Majors .....	Semester Hours
MUS 1110 Music Theory I .....	3
MUS 1120 Music Theory Lab I .....	1
MUS 1130 Music Theory II.....	3
MUS 1140 Music Theory Lab II .....	1
MUS 2110 Music Theory III .....	3
MUS 2120 Music Theory Lab III .....	1
MUS 2130 Music Theory IV .....	3
MUS 2140 Music Theory Lab IV .....	1
MUS 1210 European Music Literature .....	3
MUS 1220 World Music Literature .....	3
MUS 3210 Music History I .....	3
MUS 3220 Music History II .....	3
MUS 1710 Private Instruction I (Primary Performance Area) .....	2
MUS 1720 Private Instruction II (Primary Performance Area) .....	2
MUS 2730 Performance III (Primary Performance Area) .....	4
MUS 2740 Performance IV (Primary Performance Area) .....	4
MUS 3730 Performance V (Primary Performance Area) .....	4
MUS 3740 Performance VI (Primary Performance Area) .....	4
MUS 4730 Performance VII (Primary Performance Area) .....	4
MUS 4740 Performance VIII (Primary Performance Area) .....	4

Select two hours from the following:

MUS 161A* Class Voice I (Secondary Performance Area) .....	1
MUS 162A* Class Voice II (Secondary Performance Area) .....	1
MUS 161B* Class Piano I (Secondary Performance Area) .....	1
MUS 162B* Class Piano II (Secondary Performance Area).....	1
MUS 161K* Class Guitar I (Secondary Performance Area) .....	1
MUS 162K* Class Guitar II (Secondary Performance Area) .....	1
MUS 1710* Private Instruction I (Secondary Performance Area) .....	2

*\*Must be Class Piano I and II unless student is able to pass the Private Instruction Audition in piano.*



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*Exception: Students electing the organ concentration must take Class Voice I and II unless they are able to pass the Private Instruction Audition in voice.*

Select 12 hours from the following:

MUS 2810** Ensemble .....	1
MUS 3810** Ensemble .....	1

*\*\*Ensembles must be chosen from those appropriate to the student's concentration. Students majoring in music performance must enroll in an ensemble during each semester of full-time residence.*

MUS 3510 Basic Conducting .....	2
MUS 4790 Senior Recital .....	1
<i>Total</i> .....	73

In addition to the above core requirement, all music performance majors must select one of the following emphases:

### **Voice Concentration**

MUS 1400 Vocal Diction .....	3
MUS 4420 Vocal Pedagogy .....	3
<i>Total</i> .....	6

### **Piano Concentration**

MUS 3100 Counterpoint .....	3
MUS 4410 Piano Pedagogy .....	3
<i>Total</i> .....	6

### **Organ Concentration**

MUS 3100 Counterpoint.....	3
MUS 3520 Choral Conducting and Literature .....	3
<i>Total</i> .....	6

### **Guitar Concentration**

MUS 3100 Counterpoint .....	3
MUS 3150 Instrumental and Choral Scoring and Arranging .....	3
<i>Total</i> .....	6

### **Woodwind, Brass, String or Percussion Concentration**

MUS 3150 Instrumental and Choral Scoring and Arranging .....	3
MUS 3530 Instrumental Conducting and Literature .....	3
<i>Total</i> .....	6

### **Minor in Music**

Required Courses .....	Semester Hours
MUS 1110 Music Theory I .....	3
MUS 1120 Music Theory Lab I .....	1
MUS 1130 Music Theory II .....	3
MUS 1140 Music Theory Lab II .....	1
MUS 2110 Music Theory III .....	3
MUS 2120 Music Theory Lab III .....	1
MUS 1210 European Music Literature .....	3
MUS 1220 World Music Literature .....	3

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MUS 1710 Private Instruction I (Primary Performance Area) .....	2
MUS 1720 Private Instruction II (Primary Performance Area) .....	2
Upper-Division Elective in Music Theory, History, Literature, or Pedagogy .....	3

Select two hours from the following:

MUS 2810 Ensemble .....	1
MUS 2810 Ensemble .....	1
<i>Total</i> .....	27

## Native American Studies Minor

This is a minor intended for those students interested in studying Native Americans with specific focus in history, culture, politics and current issues of indigenous peoples within the United States. The minor provides an opportunity for students to bring a unique multidisciplinary perspective to their already chosen area of interest. The minor is offered by the Political Science Department (see page 141).

Required Courses .....	Semester Hours
NAS 1000 Introduction to Native American Studies .....	3
NAS 3200 Native American Politics .....	3
(PSC 3200)	
<i>Subtotal</i> .....	6

Choose three of the following courses:

ANT 3310 Ethnography of North American Indians .....	3
ANT 3610 Archaeology of North America .....	3
ENG 2240 Native American Literatures .....	3
HIS 3090 Native Americans in American History .....	3
NAS 3300 Land Use, Culture and Conflict .....	3
(GEG/PSC 3300)	
<i>Subtotal</i> .....	9

Choose two of the following courses:

ANT 3340 Native Americans in Historical Perspective .....	3
ANT 3660 Ancient American Civilizations .....	3
ART 3090 Art and Cultural Heritage .....	3
NAS 1930 History of Indigenous/Hispanic Americans .....	3
(HIS 1930)	
NAS 2100 Women of Color .....	3
(AAS/CHS/ICS/WMS 2100)	
<i>Subtotal</i> .....	6
<i>Total for minor</i> .....	21

In addition to the courses listed, there may be other classes offered under the variable topic, omnibus or internship heading that are appropriate for this minor. Such classes may be substituted for courses listed above in any of the categories by the faculty member coordinating the minor within the Political Science Department. The same is true for classes transferred from other institutions.

## Philosophy Department

Philosophical questions are of the most enduring interest because they are fundamental to our intellectual and practical concerns. As a critical investigation into the assumptions and implications associated with all disciplines, philosophy is interdisciplinary in character. However, this type of inquiry requires technical concepts and methods, so it takes on the

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character of a specialized discipline. Philosophical inquiry is an interaction between speculative and critical thought, recognizing no pre-established limits in its interests or its critical examinations. Therefore, philosophy as a study program enlarges the student's horizons of ideas throughout the various disciplines in the college, while providing the critical skills necessary to analyze and synthesize these ideas. It encourages students to explore creatively the full range of philosophical options, to consider alternate points of view, and to delve into profound issues. Because of the subject matter, attitudes, and methods employed in philosophy, the student will be much better prepared for leadership in personal life, civic responsibilities, and pursuit of a career.

In addition to offering a variety of courses for students who are planning to take only one or two courses in philosophy, the department offers two programs, both of which feature flexibility and individualized training:

- A major for students seeking a solid, general training/background that can serve either as a basis for graduate studies in such varied areas as philosophy, the humanities, law, medicine, business, and urban planning and development, or as a basis for a career in which the specialized training required is provided by the employer, such as careers in corporate management, government, politics, banking, or education.
- A minor for students who have already chosen a career and seek to complement their specialized training/background with the opportunities afforded by philosophy to increase their career options and generally to increase the quality of their lives.

Students who either major or minor in philosophy are encouraged to take University of Colorado at Denver courses that contribute to the requirements or the balance of their philosophy experience. These students should consult the chair of the Philosophy Department at MSCD when planning to take University of Colorado at Denver courses.

### Philosophy Major for Bachelor of Arts

Required Courses .....	Semester Hours
PHI 1440 Logic .....	3
PHI 3000 History of Greek Philosophy .....	3
PHI 3020 History of Modern Philosophy .....	3
PHI 4100 Senior Seminar .....	3
<i>Total</i> .....	12

### Additional Course Subject Areas Required

Lower-Division:

Introductory Courses .....	6
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Upper-Division:

Metaphysics and/or Epistemology .....	3
Ethics and/or Social Philosophy .....	3
One philosophical problem, one philosopher, or one philosophical movement .....	3
One course relating philosophy to another field, such as religion, art, science, or history .....	3
<i>Total</i> .....	18

Additional Electives at Any Level

(selected in consultation with and approved

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by the Philosophy Department) .....	6
<i>Total</i> .....	36

### Minor in Philosophy

Required Courses .....	Semester Hours
PHI 1010 Introduction to Philosophy .....	3
PHI 1030 Ethics .....	3
PHI 1110 Language, Logic and Persuasion .....	3
<i>Total</i> .....	9

### Electives

A minimum of 11 additional semester hours of which 7 are upper-division courses in philosophy selected in consultation with and approved by the Philosophy Department to make a total of 20 semester hours.

## Physics Department

The Physics Department offers coursework leading to a bachelor of science and to a bachelor of arts degree. Minors in physics and theoretical physics are also offered. Undergraduates preparing for work in industry or for graduate study should take the bachelor of science in physics. Students preparing to teach secondary school physics should take the bachelor of arts in physics in addition to satisfying the requirements for licensure in science. Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

The Physics Department is taught jointly by the faculties of MSCD and the University of Colorado at Denver. MSCD students will receive instruction from the faculty of both institutions.

The Physics Department also offers courses in astronomy, which are designed primarily as general interest courses.

### Physics Major for Bachelor of Arts

Required Courses .....	Semester Hours
PHY 2311 General Physics I .....	4
PHY 2331 General Physics II .....	4
PHY 2321 General Physics I Laboratory .....	1
PHY 2341 General Physics II Laboratory .....	1
PHY 2811 Modern Physics .....	3
PHY 2820 Classical Physics .....	3
PHY 3211 Analytical Mechanics .....	4
PHY 3810 Quantum Mechanics .....	3
<i>Subtotal</i> .....	23

### Required Option (Select A or B)

#### Option A:

PHY 3711 Physics Laboratory I .....	2
PHY 4721 Advanced Physics II Laboratory .....	2
PHY 4920 Physics Senior Seminar .....	1

#### Option B:

PHY 4610 Computational Physics I .....	2
PHY 4620 Computational Physics II .....	2

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PHY 4920 Physics Senior Seminar .....	1
<i>Subtotal</i> .....	5

### Electives

A minimum of 10 additional semester hours of upper-division physics courses selected in consultation with and approved by the Physics Department .....	10
<i>Total</i> .....	38

*A one-year sequence of PHY 2010 - PHY 2020 - PHY 2030 - PHY 2040 may be substituted for the PHY 2311 - PHY 2331 - PHY 2321 - PHY 2341 requirements with the consent of the Physics Department. Students are urged to take one year of general chemistry and one year of electronics. These courses should be chosen in consultation with the student's advisor in the Physics Department.*

## Physics Major for Bachelor of Science

Required Courses .....	Semester Hours
PHY 2311 General Physics I .....	4
PHY 2331 General Physics II .....	4
PHY 2321 General Physics I Laboratory .....	1
PHY 2341 General Physics II Laboratory .....	1
PHY 2811 Modern Physics .....	3
PHY 2820 Classical Physics .....	3
PHY 3211 Analytical Mechanics .....	4
PHY 3331 Electricity and Magnetism .....	4
PHY 3411 Thermal Physics .....	3
PHY 3711 Physics Laboratory I .....	2
PHY 3810 Quantum Mechanics I .....	3
PHY 4810 Atomic and Molecular Structure .....	3

### Required Option (Select A or B)

#### Option A:

PHY 4711 Advanced Physics I Laboratory .....	2
PHY 4721 Advanced Physics II Laboratory .....	2
PHY 4920 Physics Senior Seminar .....	1

#### Option B:

PHY 4610 Computational Physics I .....	2
PHY 4620 Computational Physics II .....	2
PHY 4920 Physics Senior Seminar .....	1

### Electives

A minimum of 8 additional semester hours in upper-division physics courses must be selected in consultation with and approved by the Physics Department .....	8
<i>Total</i> .....	48

*A one-year sequence of PHY 2010 - PHY 2020 - PHY 2030 - PHY 2040 may be substituted for the PHY 2311 - PHY 2331 - PHY 2321 - PHY 2341 requirements with the consent of the Physics Department. The student is urged to take one year of general chemistry and one year of electronics. It is recommended that students take PHY 3110 and PHY 3120 as electives unless the student is also a math major. These courses should be chosen in consultation with the student's advisor in the Physics Department.*

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### Minor in Physics

Required Courses .....	Semester Hours
PHY 2311 General Physics I .....	4
PHY 2331 General Physics II .....	4
PHY 2321 General Physics I Laboratory .....	1
PHY 2341 General Physics II Laboratory .....	1
PHY 2811 Modern Physics .....	3
PHY 2820 Classical Physics .....	3
A minimum of 8 additional semester hours in upper-division physics courses must be selected in consultation and approved by the Physics Department .....	
8	
<i>Total</i> .....	24

*A one-year sequence of PHY 2010-PHY 2020-PHY 2030-PHY 2040 may be substituted for the PHY 2311 - PHY 2331 - PHY 2321 - PHY 2341 requirements with the consent of the Physics Department.*

### Minor in Theoretical Physics

Students entering this program are expected to have facility in using ordinary differential equations, vector calculus, and linear algebra. These skills are normally acquired in MTH 2420, MTH 3140, and MTH 3420 or in PHY 3110 and PHY 3120.

With the consent of the Physics Department, students with strong backgrounds in physics may elect not to complete PHY 2311 and PHY 2331 and may substitute 8 semester credit hours of approved physics electives.

Required Courses .....	Semester Hours
PHY 2311 General Physics I .....	4
PHY 2331 General Physics II .....	4
PHY 3211 Analytical Mechanics .....	4
PHY 3331 Electricity and Magnetism .....	4
PHY 3411 Thermal Physics .....	3
PHY 4610 Computational Physics I .....	2
PHY 4630 Continuum Physics .....	3
<i>Total</i> .....	24

## Political Science Department

The study of political science is mainly the study of governments: their social and economic environments, how they are organized, how and why they decide upon and carry out policies, and how nation-states interact on the world scene. It also includes the study of political ideas and values, past and present, citizen behavior, and recent trends in methods of research and analysis aimed at enlarging our knowledge of political processes.

In this sense, the Political Science Department provides students with the perspective and background necessary to understand the complex and often confusing reality of politics.

To focus that search for understanding, each political science major will select a concentration either in American politics or international/comparative politics. Course listings for each area are available in the department office.

The department also houses the college's public administration program and urban studies minor program.

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### Prelaw

The Political Science Department also offers prelaw advising to all students at the college, regardless of a student's major field of study. If you are thinking of applying to law school or would like more information on the LSAT or law schools, please contact the college's prelaw advisor in the department.

### Political Science Major for Bachelor of Arts

Required Courses .....	Semester Hours
PSC 1010 American National Government .....	3
PSC 1020 Political Systems and Ideas .....	3
PSC 2020 Conducting Political Analysis	
-or-	
PSY 2310 Introduction to Statistics for Social and Behavioral Sciences .....	3
PSC 3050 Political Theory .....	3
PSC 4020 Special Studies (Senior Experience) .....	3
<i>Subtotal</i> .....	15

#### Electives

A minimum of 21 additional semester hours of political science must be completed. At least 18 of these 21 hours must be upper-division courses (3000- and 4000-level) and must be approved by the department. Generally, students may apply only 12 hours of credit in nonclassroom courses toward the major as approved electives.

<i>Subtotal</i> .....	21
<i>Total</i> .....	36

#### Course Distribution and Area Concentration

Of the 21 elective hours in political science, 12 must be in the student's primary area of study: American politics or international/comparative politics. A minimum of 3 hours must be drawn from the remaining area of concentration and 6 hours can be selected at the student's discretion.

### Political Science Minor

Required Courses .....	Semester Hours
PSC 1010 American National Government .....	3
PSC 1020 Political Systems and Ideas .....	3
PSC 3050 Political Theory .....	3
<i>Subtotal</i> .....	9

#### Electives

A minimum of 12 additional semester hours are required in political science courses. At least 9 of these 12 hours must be in upper-division courses (3000- and 4000-level) and must be approved by the department. Generally, students may apply only 6 hours of credit in nonclassroom courses toward the major as approved electives.

<i>Subtotal</i> .....	12
<i>Total</i> .....	21

### Public Administration Minor

Public administration is the study of governmental organizations, their management, and how government policies are formulated and carried out. The Political Science Department offers a minor in public administration available to students interested in a career in government service, to students presently employed in government who wish to increase

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their skills and job status, and to students planning to take postgraduate work in public administration.

Required Courses .....	Semester Hours
Basic courses required for all public administration minors:	
PSC 1010 American National Government .....	3
PSC 3020 Introduction to Public Administration .....	3

Two of the following courses:

PSC 3220 Public Policy .....	3
PSC 3240 Intergovernmental Relations .....	3
PSC 3260 Politics of Budgeting .....	3
PSC 3280 Public Personnel Administration .....	3
ACC 3200 Governmental Accounting .....	3

One of the following courses:

CMS 2010 Principles of Information Systems .....	3
MTH 1210 Introduction to Statistics .....	4
Internship PSC 4120 or Substitute Course (minimum) .....	3
<i>Total</i> .....	18-19

A governmental internship will be required of all students for a minimum of one semester and a minimum of three semester hours. This requirement may be waived for students with at least one calendar year of administrative work experience in a government agency.

It is recommended that public administration minors also take a course in both public speaking and in technical writing.

Also available to students is a program of courses leading to a recognition of completion award in public administration presented by the Political Science Department. Students may earn the award by successfully completing a selection of courses amounting to 21 semester hours. Contact the Political Science Department for details.

### Internships

In addition to scheduled classes, political science students are encouraged to enroll for at least one off-campus internship. Students may receive credit for practical work experience in various areas of government service. Placement in a governmental position may be initiated by the student, Cooperative Education, or the Political Science Department. Interested students should contact the Political Science Department for details.

### Courses with Variable Topics

Not listed among the regular courses are a variety of topics courses and self-paced courses that are offered each semester and give the student a greater variety of choice. Please be sure to check the current *Class Schedule* for these classes, which can be repeated for credit under different titles.

### Washington, D.C., Program

During the summer session, the department offers a special program in Washington, D.C., aimed at providing students with a unique perspective on the nation's political system. The program combines on-campus meetings and relevant readings with a module held in Washington. Please contact the department about this program. Also, the department works with students interested in an internship in Washington, D.C., during summer, fall, or spring semesters.



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### Golda Meir Center for Political Leadership

The Golda Meir Center for Political Leadership is connected to the historic Golda Meir House on the Auraria campus. The center is organized and operated through the Political Science Department. The center's purpose is to develop programs that examine the role of leaders and leadership at all levels of the political process; blend together theoretical and applied politics; and emphasize voices and perspectives that expand the boundaries of traditional leadership analysis.

### Certificate Program Available

#### PUBLIC ADMINISTRATION

PSC 1010 American National Government .....	3
PSC 3000 American State and Local Government .....	3
PSC 3020 Introduction to Public Administration .....	3
PSC 3260 Politics of Budgeting .....	3
PSC 3280 Public Personnel Administration .....	3

Elective Requirements (Choose two of the following)

PSC 3160 Readings in Political Science and Public Administration..	1-3
PSC 3220 Public Policy .....	3
PSC 3240 Intergovernmental Relations .....	3

For additional requirements, call Dr. John Regnell, 303-556-3220 or Dr. Norman Provizer, 303-556-3157.

### Urban Studies Minor

## Psychology Department

### Psychology Department student outcome goals:

Upon completion of a degree program in psychology students will be able to:

- Demonstrate a knowledge of the major historical contributions and themes, basic principles, current issues, and emerging developments in psychology.
- Communicate knowledge of the field of psychology both orally and in writing, the latter following the American Psychological Association guidelines.
- Relate psychological principles and methodology to the problems and issues in other disciplines.
- Conduct independently a basic literature search on a given problem in psychology and integrate this new information into a coherent understanding of the basic issues relating to this problem.
- Apply the fundamentals of research methodology and statistical analysis to the interpretation and evaluation of research reports.
- Express an appreciation for the value of psychological knowledge in improving our world and for individual differences and universal commonalities in human experience.

The major or minor program is to be planned in consultation with an advisor from the Psychology Department by the beginning of the junior year or upon transfer into the department.

### Major for Bachelor of Arts

Required Courses .....Semester Hours

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PSY 1001 Introductory Psychology .....	3
PSY 2310 Introduction to Statistics for Social and Behavioral Sciences .....	3
PSY 2320 Inferential Statistics .....	3
PSY 3310 Psychological Research Methods I .....	3
PSY 3320 Psychological Research Methods II .....	3
PSY 4510 History and Systems of Psychology .....	3
<i>Subtotal</i> .....	18

In addition, students must choose one course from each category:

### Social

PSY 2150 Cross-Cultural Psychology .....	3
PSY 2410 Social Psychology .....	3
PSY 3050 Psychology of Gender .....	3
PSY 3470 Psychology of Violence and Aggression .....	3

### Experimental

PSY 3570 Cognitive Psychology .....	3
PSY 3590 Theories of Motivation .....	3
PSY 4300 Sensation and Perception .....	3
PSY 4310 Physiological Psychology .....	3
PSY 4390 Psychology of Learning .....	3

### Clinical/Personality

PSY 2160 Personality and Adjustment .....	3
PSY 3000 Theories of Personality .....	3
PSY 3100 Psychology of Counseling .....	3
PSY 3620 Abnormal Psychology .....	3

### Developmental

PSY 2210 Psychology of Human Development .....	3
PSY 3250 Child Psychology .....	3
PSY 3260 Psychology of Adolescence .....	3
PSY 3270 Adulthood and Aging .....	3
<i>Subtotal</i> .....	12
<i>Total</i> .....	30

Electives: A minimum of 15 additional semester hours in psychology courses selected in consultation with and approved by a Psychology Department advisor, making a total of 45 hours in psychology. No more than 9 of these hours may be PSY 2950 courses, and no more than 6 of these hours may be PSY 4980. The maximum number of hours in psychology a student may count toward a bachelor of arts degree is 60.

<i>Subtotal</i> .....	15
<i>Total Hours Required for the Major</i> .....	45

### Additional Requirement

BIO 1000 Human Biology for Non-Majors .....	3
-or-	
BIO 1080 General Introduction to Biology .....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
or equivalent	

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This additional requirement may be applied toward General Studies, the minor, or degree electives.

Students considering advanced degrees should be aware that, in addition to coursework in the areas listed above, graduate programs often have specific undergraduate course prerequisites. Required or recommended courses, depending on the graduate program, include Theories of Personality, Abnormal Psychology, Psychology of Learning, Child Psychology, Physiological Psychology, Industrial Psychology, Sensation and Perception, Cooperative Education in Psychology, Teaching of Psychology, and Advanced Statistics. Therefore, students should consult with a Psychology Department advisor to choose appropriate psychology electives.

Students interested in the gerontology concentration must select a minimum of 30 hours (see list under Sociology Department, gerontology concentration) in addition to the 30 hours of required courses for the psychology major. This must be done in consultation with and approved by a Psychology Department advisor. The gerontology concentration may be applied in lieu of the 15 elective hours in the psychology major and the minor requirement. Students may not count the same course twice toward meeting requirements in both the major and the gerontology concentration; different courses must be chosen to complete the major hours and the gerontology hours.

Students desiring secondary licensure in social studies should contact an advisor in the Secondary Education Department. The psychology concentration requires PSY 1001, PSY 3260, and six additional hours of electives (three upper-division); PSY 2210 or PSY 2410 is suggested. (Please see page 181 of this *Catalog* for required courses.) Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

In meeting the requirements for the psychology major (described above), transfer students must take a minimum of 15 semester hours of psychology coursework at MSCD, of which at least 9 must be upper-division credits.

Transfer students must have completed both semesters of a two-semester introductory psychology course for equivalence to exist. Three hours will count toward the major or minor; three, as electives to graduate.

*NOTE: The Psychology Department does not count CLEP credit toward the total number of semester hours required for the major or minor; extra coursework is necessary to make up the difference. The Psychology Department does not accept correspondence study courses toward the total number of semester hours required for a major or minor. However, both CLEP and correspondence study credit can count toward the degree. Students who wish to use psychology courses to fulfill General Studies, college degree requirements or an interdisciplinary major or minor must earn additional hours to fulfill the total hours for either the major or minor in psychology. The only exceptions are: PSY 4510, History and Systems of Psychology, which may be used as a Senior Experience without being replaced in the major or minor; and PSY 3170, Multicultural Service Learning, which may be used to meet the Multicultural requirement without being replaced in the major or minor. Please consult with an advisor.*

### Minor in Psychology

Required Courses .....Semester Hours

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PSY 1001 Introductory Psychology .....	3
PSY 4510 History and Systems of Psychology .....	3

In addition to these two required courses, students must take at least one course each from any two of the four categories listed on the previous page under: Social, Experimental, Clinical/Personality, and Developmental.

*Subtotal* .....6

### Elective Courses

In addition to the required courses, students must take 12 semester hours of PSY courses chosen from those listed under the major or other department offerings.....12

*Total Hours Required for the Minor* .....24

No more than 6 semester hours may be PSY 2950 variable topics courses, no more than 3 semester hours may be PSY 3970 Practicum, and at least two electives in psychology (6 semester hours) taken at MSCD must be upper-division. See also the NOTE in the preceding Psychology Department section.

### Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Psychology Department and includes the required courses listed under the holistic health and wellness education multi-minor on page 122 of this *Catalog*.

## The Social Work Program

### Major for Bachelor of Science

Social work is a professional practice. The primary educational goal of the major is preparation for beginning level social work practice in social agencies. In addition, the social work major provides an appropriate foundation for graduates who plan to pursue the advanced degree in social work (M.S.W.). Contact the Sociology, Anthropology and Social Work Department for additional information.

### Statement of Program Rationale and Mission

The social work program at MSCD is committed to educating and training social work professionals in generalist social work practice so that they may provide direct and indirect services to minority and majority clients. The focus of the program is on urban problems that often affect oppressed minorities representing people of color (African American, Hispanic, Native American, Asian American) and other diverse populations (women and children, gays and lesbians, the developmentally delayed and the aging). The program is committed to helping those individuals in need and working toward changing the social, economic and political context that often fosters painful and socially unjust human conditions.

The needs of metropolitan Denver and other urban areas warrant a generalist perspective in which students are able to identify the destructive impact of negative interactions between individuals and systems in their environment. Such interactions often have detrimental effects on the social functioning of individuals, families, groups, organizations, communities and larger systems. Through professional foundation courses and electives, students acquire skills, knowledge, values and ethics required for beginning social work practice. Clients are seen as partners in the process of working toward mutually agreed upon goals rooted in generalist practice. Using problem-solving methods aimed at individual and group

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empowerment, the impact of historic and current negative valuations of diverse, populations at risk may slowly be mitigated.

### Goals of the Social Work Program

The goals of the social work program reflect the urban mission of MSCD and the purposes of the social work profession:

1. To prepare students for generalist social work practice with diverse, urban populations at risk including individuals, families, groups, organizations, communities and larger systems.
2. To prepare students for entry level, professional practice in social agencies that address the needs of diverse, urban populations.
3. To provide students with the knowledge and skills for understanding the dynamic nature of social problems, social policies, social agencies and social change in the context of the urban environment as an evolving ecological system.
4. To provide an ethical foundation to guide students in beginning and continued professional social work practice in keeping with social work values.
5. To prepare graduates to further develop their potential for life-long learning and continued professional growth and development.

### Individualized Minor

Individualized minors are available in social work that will complement a variety of health care, education and criminal justice majors. Contact the Center for Individualized Learning, 303-556-8342, Central Classroom 106, for more information.

### Accreditation

The social work program is accredited with the Council on Social Work Education. The social work program received initial accreditation in February 1997. Students who graduate from an accredited undergraduate social work program may apply for advanced standing (where available) in social work graduate programs (M.S.W.). This often means that students may complete their M.S.W. degree in one year instead of two years.

Required Courses .....Semester Hours

Introductory social work courses (required before applying to the social work program):

SWK 1010 Introduction to Social Welfare and Social Work .....3

SWK 1020 Introduction to Agency Experience .....1

Professional foundation courses (required after students have been accepted into the social work program):

SWK 3050 Human Behavior and the Social Environment I .....3

SWK 3060 Human Behavior and the Social Environment II .....3

SWK 3410 Generalist Practice I .....4

SWK 3780 Social Welfare Policy .....3

SWK 3790 Research in Social Work .....4

SWK 4010 Generalist Practice II .....4

SWK 4250 Exploring Current Social

Work Issues: Variable Topics .....3

SWK 4410 Advanced Cross-Cultural Social Work Issues .....4

SWK 4790 Professional Field Experience I .....5

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SWK 4810 Professional Field Experience II .....	5
SWK 4850 Integrative Seminar .....	3
<i>Subtotal</i> .....	45

### Electives

Nine credit hours from the following are required. Students may take these courses before (with permission of the instructor) or after they have been accepted into the social work program.

SWK 2020 Social Work with Women .....	3
SWK 3010 Social Work Services for Children and Adolescents .....	4
SWK 3020 Case Management in Social Work Practice .....	4
SWK 3030 Social Work with the Aging .....	4
SWK 3100 Child Welfare and the Law .....	3
SWK 3150 Social Work and Child Maltreatment .....	3
SWK 3200 Social Work with Urban Families .....	3
SWK 3450 Mutual Aid Groups in Social Work .....	3
<i>Subtotal</i> .....	9
<i>Total</i> .....	54

Case Management: The Social Work Program and the Human Services Department have developed a joint program on topics in case management and developmental disabilities. The purpose of the program is to prepare students to perform the roles and functions of a case manager. An award of completion is granted to individuals who complete the required courses. For more information call 303-556-4464.

### Liberal Arts Perspective Courses

Social work majors are required to take the following courses outside the social work program in preparation for the major:

SPE 1010 Public Speaking  
-or-  
SPE 1710 Interpersonal Communication  
ANT 1310 Introduction to Cultural Anthropology  
PSC 1010 American National Government  
PSY 1001 Introductory Psychology  
SOC 1010 Introduction to Sociology  
BIO 1000 Human Biology for Non-Majors  
-or-  
BIO 2310 Human Anatomy and Physiology  
MTH 1210 Introduction to Statistics

Many of the above courses will also fulfill General Studies requirements for graduation.

### Multicultural Requirement

Social Work majors are required to take two multicultural classes outside the social work program. Both classes must focus on one specific ethnic minority (African American, Hispanic, Native American, or Asian American). One must be upper-division. For a list of approved multicultural courses, please contact the social work program at 303-556-4464.

### Admission to the Social Work Program

Students should declare social work as their major when they enter MSCD. To complete the major, students must apply to the social work program for acceptance. Students should

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have completed or be enrolled in the liberal arts perspective courses and the introductory social work courses when applying to the social work program. Students are accepted once a year. Applications are available February 1 and are due March 1 of each year. Students begin the required professional foundation courses in the fall semester only. Students may not begin the professional foundation courses in the spring semester.

### Life Experience Credit

There is no credit given for college level learning gained through life experience that may be used toward the social work major.

## Sociology

Sociology is the study of society in all of its forms, from individuals to large organizations. The sociology major emphasizes the applied aspect of the field of sociology. Applied sociology is the use of sociological theory and methods to analyze and solve practical problems and issues that exist in the everyday social world. This means a student majoring in sociology will be able to apply what they have learned in a variety of work-related settings or to go on to graduate school. Contact the Sociology, Anthropology and Social Work Department for additional information.

A major in sociology requires that students take and pass 36 hours in sociology, with a minimum of a "C" in all sociology courses taken. The student majoring in sociology will take 15 required hours and 21 elective hours, for a total of 36 hours in the discipline.

### Sociology Major for Bachelor of Arts

Required Courses .....	Semester Hours
SOC 1010 Introduction to Sociology .....	3
SOC 3320 Sociological Theory: Past and Present .....	3
SOC 3590 Social Statistics .....	3
SOC 3600 Research in the Social Sciences .....	3
SOC 4600 Advanced Research in the Social Sciences	
-or-	
SOC 4710 Applied Sociology .....	3
<i>Total</i> .....	15

### Electives

A minimum of 21 additional semester hours in sociology is required to complete the major. Students may choose as electives any additional courses offered in sociology. At least 12 upper-division semester hours in sociology must be completed at MSCD by students majoring in sociology. The department recommends that the student's choice of electives be made in consultation with an advisor.

### Electives: Applied Sociology

The major focus of the sociology major is applied sociology. The focus in applied sociology extends the applied perspective of the department that begins with the required courses in the major. Applied courses emphasize the practice of sociology and the application of sociology to real social issues. Classes in this area emphasize practical skills, knowledge, and theories that the sociologist can use outside of the academic environment. Applied sociology includes fieldwork in government, business, nonprofits, and other organizations and agencies. Courses that are specifically designed to meet these criteria are listed below.

SOC 3090 Urban Sociology  
SOC 3160 Industry, Work and Occupations  
SOC 3810 Population Issues

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SOC 4200 Social Stratification and Inequality  
SOC 4210 Structure and Dynamics of Modern Organizations  
SOC 4220 Society and the Environment  
SOC 4300 Social Change  
SOC 4600 Advanced Research in the Social Sciences  
SOC 4710 Applied Sociology

Electives: General Sociology

As an alternative to the applied sociology focus, the student may choose instead to create a program of 21 elective hours that meets their own needs and interests. Some possible areas of concentration are listed in the section on sociology minors below. Students should, however, feel free to create their own list of classes that meet the necessity of taking 21 elective hours in sociology.

It is recommended that the student build an area of concentration with the help of a sociology advisor.

### Gerontology Concentration

Gerontology deals with the causes and consequences-biological, psychological, and social-of aging. Drawing from many fields of academic study, this concentration prepares the student for professional and paraprofessional careers in human services for the aging population.

To complete the gerontology concentration, a student selects (in addition to the 15 hours of required courses in the sociology major) in consultation with and approved by the Sociology, Anthropology and Social Work Department, a minimum of 45 hours from the following list of courses. The gerontology concentration may be applied in lieu of the 21 elective hours in the sociology major and the minor requirement.

Required Courses .....	Semester Hours
SOC 1040 Introduction to Social Gerontology .....	3
SOC 3040 Contemporary Issues in Gerontology .....	3
SOC 3090 Urban Sociology .....	3
SOC 3100 Death and Dying .....	3
SOC 3240 Poverty in America .....	3
SOC 3410 The Family in Transition .....	3
SOC 3800 Health and Healers .....	3
SOC 3810 Population Issues .....	3
SOC 3830 Mental Disorders .....	3
SOC 4700 Advanced Field Internship .....	3
SWK 3030 Social Work with the Aging .....	4
PSY 2160 Personality and Adjustment .....	3
PSY 2210 Psychology of Human Development .....	3
PSY 2270 Death and Dying .....	3
PSY 3270 Adulthood and Aging .....	3
PSY 3980 Cooperative Education: Psychology .....	3
HES 1050 Dynamics of Health .....	3
HES 2040 Introduction to Nutrition .....	3
SPE 4760 Communication and the Elderly .....	3
A minimum of 45 hours from the courses listed above is required...	45

### Minor in Sociology

Required Course  
SOC 1010 Introduction to Sociology .....3



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A minimum of 15 additional semester hours in sociology courses, selected in consultation with a department advisor, is required bringing the total to 18 semester hours. At least 6 upper-division hours of the minor must be completed at MSCD.

Areas of concentration are offered as suggestions for students who wish to explore a particular subdiscipline of sociology in greater depth. The courses in each concentration focus on the issues, theories, and research in a specific area of sociology.

### Suggested Areas of Concentration for a Minor in Sociology

#### The Urban Community

Required Courses .....	Semester Hours
SOC 3090 Urban Sociology .....	3
SOC 3130 The Chicano Community .....	3
SOC 3140 The Black Community .....	3
SOC 3220 Race, Gender, and Ethnic Groups .....	3
SOC 3810 Population Issues .....	3

#### Social Deviance

SOC 2010 Current Social Issues .....	3
SOC 2500 Deviant Behavior in Society .....	3
SOC 3500 Criminology .....	3
SOC 3510 Juvenile Delinquency .....	3
SOC 3550 Sociology of Law .....	3
SOC 3830 Mental Disorders .....	3

#### The Family

SOC 3400 Childhood and Adolescent Socialization .....	3
SOC 3410 The Family in Transition .....	3
SOC 3440 The Black Family .....	3
SOC 3460 Sociology of Sexuality .....	3
SOC 3470 The Chicano Family .....	3

#### Medicine and Health

SOC 1040 Introduction to Social Gerontology .....	3
SOC 3040 Contemporary Issues in Gerontology .....	3
SOC 3100 Death and Dying .....	3
SOC 3800 Health and Healers .....	3
SOC 3830 Mental Disorders .....	3

#### Social Stratification

SOC 3220 Race, Gender and Ethnic Groups .....	3
SOC 3240 Poverty in America .....	3
SOC 3430 Sociology of Gender Roles .....	3
SOC 4200 Social Stratification and Inequality .....	3

## Spanish Program

Spanish is part of the Modern Languages Department. For more information, see [Modern Languages.](#)

Registration for courses is in accordance with previous preparation. Consequently, students should register for foreign language courses as follows: No previous study, or less than one year in high school-1010; students with one year in high school who feel their background is

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weak-1010; one semester in college-1020; one year in college-2110 and/or 2310 for German and Spanish and 2010 for French; two years in high school-2110 and/or 2310 for German and Spanish and 2010 for French, or 1020, if needed; three years in high school or one and one-half years in college-2120 and/or 2320 for German and Spanish and 2020 for French; or 2110 and/or 2310 for German and Spanish and 2010 for French, if needed; four years in high school or two years in college-3000-level courses, or 2120 and/or 2320 for German and Spanish and 2020 for French, if needed.

The above regulations may not be applicable if students have had no professional instruction in their chosen foreign language within the past two years. Students can also test if they feel that they have insufficient preparation for the required level or are not sure of that level. Elementary courses do not apply toward the major or minor requirements.

Students seeking elementary and secondary credentials in French, German, or Spanish must satisfy the teacher education program of MSCD in addition to all of the major requirements. They must also demonstrate sufficient mastery of the target language or languages through an appropriate proficiency exam. Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Spanish Major for Bachelor of Arts

Required Courses .....	Semester Hours
SPA 2110 Intermediate Spanish .....	3
SPA 2120 Spanish Reading and Conversation .....	3
SPA 2310 Spanish Grammar and Composition I .....	3
SPA 2320 Spanish Grammar and Composition II .....	3
SPA 3110 Advanced Conversation .....	3
SPA 3140 Advanced Composition .....	3
SPA 3150* Spanish Phonetics: Theory and Practice .....	3
SPA 3200 Culture and Civilization of Spain	
-or-	
SPA 3210 Spanish-American Culture and Civilization	
-or-	
SPA 3220 Folklore and Culture of the Mexican Southwest .....	3
SPA 3250 Introduction to Literary Studies in Spanish .....	3
SPA 3400 Survey of Spanish Literature I	
-or-	
SPA 3410 Survey of Spanish Literature II .....	3
SPA 3510 Masterpieces of Latin American Literature .....	3
SPA 4010 Advanced Spanish Writing and Grammar I .....	3
SPA 4020 Advanced Spanish Writing and Grammar II .....	3
SPA 4110 Contemporary Spanish Literature	
-or-	
SPA 4120 Contemporary Latin American Literature .....	3
MDL 4960* Teaching Foreign Languages in the Secondary Schools .....	3
Spanish Electives** .....	3
<b>Total*** .....</b>	<b>48</b>

*\*Required only when seeking a teacher license.*

*\*\*Must be advanced courses and taken with department approval.*

*\*\*\*Only 42 semester credit hours for those not seeking teacher licensure.*

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### Minor in Spanish

Required Courses .....	Semester Hours
SPA 2110 Intermediate Spanish .....	3
SPA 2120 Spanish Reading and Conversation .....	3
SPA 2310 Spanish Grammar and Composition I .....	3
SPA 2320 Spanish Grammar and Composition II .....	3
SPA 3110 Advanced Conversation .....	3
SPA 3200 Culture and Civilization of Spain	
-or-	
SPA 3210 Spanish-American Culture and Civilization	
-or-	
SPA 3220 Folklore and Culture of the Mexican Southwest .....	3
SPA 3250 Introduction to Literary Studies in Spanish .....	3
<i>Total</i> .....	21

## Speech Communication Department

Communication is one of the most important human qualities and proficiency in any one of the areas of speech communication opens up many careers to the graduate.

For instance, in Broadcasting/Telecommunications, a graduate might aspire to careers in radio, television, cable and film as talent, writer, producer, director, or a specialist in promotion, public affairs, sales and marketing, management, production engineering, advertising, public information in business, industry and government.

A concentration in Communication Disorders provides sound background for students pursuing careers in education, vocational rehabilitation and health care. Graduates have the prerequisite coursework to pursue a master's degree in speech-language pathology or audiology which opens doors to careers in schools, hospitals, community clinics, rehabilitation centers and private practice.

Graduates in Rhetoric and Public Address have achieved success in law, industrial and organizational communication, educational administration, public relations, speech writing for political figures, teaching, public relations and theology.

Professional and educational theatre occupations are open to graduates in Theatre with specialties in stagecraft, sound, engineering, scriptwriting, directing and acting.

Communication Theory prepares students for work as human resource specialists, employee managers, public relations specialists, personal relationship consultants, and is an excellent preparation for graduate studies in social science research programs.

Organizational Communication prepares students for work in consulting, training and conference planning. This concentration presents lucrative and satisfying careers to speech communication graduates. Job opportunities are available in education, government, business, and industry as well as private practice as a consultant.

A concentration in Secondary Teacher Education is appropriate for students planning to teach speech/drama at the secondary level. A concentration in Early Childhood/Elementary Teacher Education provides sound background for students seeking licensure in early childhood or elementary education.

### Speech Communication Major for Bachelor of Arts

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- Core courses are required for all concentrations.
- A senior experience course is required for all students in each concentration and will be selected in consultation with a department faculty advisor.
- Elective courses within each concentration will be selected in consultation with an advisor approved by the Speech Communication Department.
- Independent study, topic courses, and experiential education courses such as practicums and internships may be taken in each of the program areas.
- Total minimum semester hours for a major in speech communication: 42.  
(Exception: 36 hours for majors taking Early Childhood/Elementary Teacher Education concentration seeking licensure.)

Required Basic Core Courses .....	Semester Hours
SPE 1010 Public Speaking .....	3
THE 3200 Oral Interpretation .....	3
SPE 3740 Psychology of Communication .....	3
<i>Total</i> .....	9

### Broadcasting Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 2400 Introduction to Radio and Television Broadcasting ..	3
SPE 3430 Radio-Television Announcing .....	3
SPE 3440 Television Production .....	3
SPE 3450 Broadcast Journalism: Radio	
-or-	
SPE 4450 Broadcast Journalism: Television .....	3
SPE 3480 Workshop in Radio Production .....	3
SPE 4480 Seminar Practicum in Broadcasting .....	3
TLC 2490 Internship in Radio-Television-Film-Mass Communications	
-or-	
SPE 2980 Cooperative Education for Speech Communication .....	1-6
TLC 3490 Advanced Internship in Radio-Television-Film-Mass Communications	
-or-	
SPE 3980 Cooperative Education for Speech Communication .....	1-15
<i>Subtotal</i> .....	29-42

Due to internship opportunities, some students may complete more than 42 hours.

Elective Courses .....	Semester Hours
SPE 3300 Voice Science: Phonetics and Voice and Diction .....	3
SPE 3470 Evolution of Cinematics as Art .....	3
SPE 4490 Effects of Radio-Television on Contemporary Life ....	3
<i>Total</i> .....	42

### Communication Theory Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 1700 Communication Theory .....	3
SPE 1710 Interpersonal Communication .....	3
SPE 2110 Discussion Methods .....	3
SPE 2720 Nonverbal Communication .....	3
<i>Subtotal</i> .....	21

Elective Courses	
SPE 1730 Listing and Interviewing Communication Skills .....	3

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SPE 2710 Team and Group Communication .....	3
SPE 2730 Communication and Conflict .....	3
SPE 3010 Advanced Public Speaking .....	3
SPE 2770 Gender and Communication .....	3
SPE 3170 Interpersonal Negotiation .....	3
SPE 3760 Cultural Influences on Communication .....	3
SPE 3770 Family Communication .....	3
SPE 4100 Techniques of Persuasion .....	3
SPE 4700 Communication and the Trainer .....	3
SPE 4760 Communication and the Elderly .....	3
SPE 4790 Communication Theory Building and Research Methodology .....	3
<i>Subtotal</i> .....	21
<i>Total required for major</i> .....	42

### Organizational Communication Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 1700 Communication Theory .....	3
SPE 3100 Business and Professional Speaking .....	3
SPE 3110 Organizational Leadership .....	3
<i>Subtotal</i> .....	18

#### Elective Courses

SPE 1710 Interpersonal Communication .....	3
SPE 1730 Listening and Interviewing Communication Skills .....	3
SPE 2110 Discussion Methods .....	3
SPE 2160 Organizational Communication Theory .....	3
SPE 2710 Team and Group Communication .....	3
SPE 2720 Nonverbal Communication .....	3
SPE 2730 Communication and Conflict .....	3
SPE 3010 Advanced Public Speaking .....	3
SPE 3130 Conference Leadership .....	3
SPE 3170 Interpersonal Negotiation .....	3
SPE 3760 Cultural Influences on Communication .....	3
SPE 4100 Techniques of Persuasion .....	3
SPE 4160 Advanced Organizational Communication .....	3
SPE 4700 Communication and the Trainer .....	3
SPE 4790 Communication Theory Building and Research Methodology .....	3
<i>Subtotal</i> .....	24
<i>Total required for major</i> .....	42

### Public Address and Rhetoric Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 3090 Argumentation and Advocacy .....	3
SPE 4080 Rhetorical Criticism of Public Address .....	3
SPE 4090 Classical Rhetoric .....	3
SPE 4100 Techniques of Persuasion .....	3
<i>Subtotal</i> .....	21

#### Elective Courses

SPE 2110 Discussion Methods .....	3
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SPE 3010 Advanced Public Speaking .....	3
SPE 3050 Intercollegiate Forensics .....	1
SPE 3080 Great American Speakers .....	3
SPE 3090 Argumentation and Advocacy .....	3
SPE 3100 Business and Professional Speaking .....	3
SPE 3160 Communication in Politics .....	3
SPE 4050 Advanced Intercollegiate Forensics .....	2
SPE 4080 Rhetorical Criticism of Public Address .....	3
SPE 4120 Freedom of Speech .....	3
<i>Subtotal</i> .....	21
<i>Total required for major</i> .....	42

### Communication Disorders Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 2530 Voice Science: Pathology and Technology .....	3
SPE 3500 Anatomy and Physiology of the Speech and Hearing Mechanism .....	3
SPE 3501 Anatomy and Physiology of the Speech and Hearing Mechanism Lab .....	1
SPE 3520 Language Acquisition .....	3
SPE 3540 Phonetics and Language Sample Analysis .....	3
SPE 3580 Speech Disorders: Articulation and Stuttering .....	3
SPE 3600 Audiology I .....	3
SPE 3620 Aural Rehabilitation .....	3
SPE 4510 Language Disorders .....	3
<i>Subtotal</i> .....	34

#### Elective Courses (8 hours required)

SPE 1500 Introduction to Communication Disorders .....	3
SPE 1610 American Sign Language I .....	3
SPE 1620 American Sign Language II .....	3
SPE 3300 Voice Science: Phonetics and Voice and Diction .....	3
SPE 3570 Diagnostic Procedures in Communication Disorders .....	3
SPE 3590 Classroom Intervention for Communication Disorders ..	3
SPE 3610 Audiology II .....	2
SPE 4500 Clinical Methods in Communication Disorders .....	3
SPE 4550 Clinical Practicum and Seminar in Communication Disorders .....	2-6
SPE 4570 Medical Aspects of Communication Disorders .....	2
<i>Subtotal</i> .....	8
<i>Total required for major</i> .....	42

### Theatre Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
ENG 1120 Introduction to Drama -or-	
ENG 2100 Introduction to Literary Studies .....	3
THE 2210 Introduction to Theatre .....	3
THE 2220 Techniques of Acting I .....	3
THE 2240 Introduction to Stagecraft .....	3
THE 3220 Stage Movement .....	3

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THE 3280 Stage Directing .....	3
<i>Subtotal</i> .....	27

### Elective Courses

THE 2200 Creative Dramatics for the Classroom Teacher .....	3
THE 2230 Techniques of Acting II .....	3
THE 2990 Beginning Internship in Theatre .....	3
THE 3230 Acting III: Styles of Acting .....	3
THE 3240 Theatre Improvisation Techniques .....	3
THE 3250 Introduction to Scenic Design and Theatre Lighting ..	3
THE 4200 Reader's Theatre .....	3
THE 4260 Theatre: Practicum I .....	1
THE 4270 Theatre: Practicum II .....	2
THE 4900 Advanced Internship in Theatre .....	3

*(In addition to the courses listed above, other Theatre courses, including internships, may be used as electives after consultation with a theatre advisor.)*

<i>Subtotal</i> .....	15
<i>Total</i> .....	42

## Secondary Teacher Education Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 2110 Discussion Methods .....	3
THE 2210 Introduction to Theatre .....	3
THE 2220 Techniques of Acting I .....	3
THE 2240 Introduction to Stagecraft .....	3
SPE 2400 Introduction to Radio and Television Broadcasting ...	3
SPE 3010 Advanced Public Speaking .....	3
SPE 3090 Argumentation and Advocacy .....	3
THE 3280 Stage Directing .....	3
SPE 3300 Voice Science: Phonetics and Voice and Diction .....	3
SPE 3590 Classroom Intervention for Communication Disorders ..	3
SPE 3800 Instructional Methods for Speech Teachers and Creative Speech .....	3
SPE 4100 Techniques of Persuasion .....	3
<i>Total required for major</i> .....	45

Students seeking secondary licensure in speech education must satisfy the teacher education program requirements in addition to all of the major requirements.

A minor in another academic area is recommended. Completion of credit hours in English to meet NCATE standards is advised. Consult a Speech Department advisor for information.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

## Early Childhood/Elementary Teacher Education Concentration

Required Courses .....	Semester Hours
Basic Core .....	9
SPE 1710 Interpersonal Communication .....	3
THE 2200 Creative Dramatics for the Classroom Teacher .....	3
SPE 3520 Language Acquisition .....	3

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SPE 3770 Family Communication

-or-

SPE 4490 Effects of Radio-Television on Contemporary Life .....3

SPE 3590 Classroom Intervention for Communication Disorders

-or-

SED 4200 Language Development and Learning Disabilities .....3

*Subtotal* .....24

### Recommended Elective Courses

ENG 2010 The Nature of Language .....3

THE 2220 Techniques of Acting I .....3

SPE 2730 Communication and Conflict .....3

SPE 2770 Gender and Communication .....3

SPE 3760 Cultural Influences on Communication .....3

RDG 3140 Whole Language Integration Across the Curriculum .....2

THE 4200 Reader's Theatre .....3

*Subtotal* .....12

*Total required for major* .....36

Students who do not obtain all required licensure coursework at MSCD must take an additional 6 credits (to include a senior experience course) for a 42 hour major. The student is responsible for obtaining advising regarding licensure coursework from the Department of Early Childhood, Elementary and Special Education. Licensure coursework must be submitted and approved on the student's graduation agreement.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Speech Communication Minor

All speech communication minors are required to take a minimum of 24 hours including the core (SPE 1010, THE 3200, and SPE 3740). Hours taken beyond the core are to be determined in consultation with a speech communication advisor.

### Telecommunications

Telecommunications is one of the most beneficial internship programs for speech communication students in broadcasting. Under the auspices of the Speech Communication Department, the student is afforded the opportunity to gain hands-on experience through current internships in radio, television, and film, provided by industry, government, business, public, and commercial telecommunications centers. The student may begin this program upon the completion of 6 hours in broadcasting-telecommunications courses at MSCD. Students should contact the advisor in broadcasting for details relative to eligibility and placement in the telecommunications internships. Telecommunications internships are offered every semester during each of the modules as well as on a full-semester basis.

### Urban Studies Minor

The Urban Studies minor is managed by the Political Science Department, West Classroom 136, 303-556-3220.

Minors for both the bachelor of science degree and the bachelor of arts degree are available. The minor can be designed to provide the student with course experiences that are most relevant to the student's occupational and educational goals.



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Students, in consultation with the department offering related courses and the student's urban studies faculty advisor, will develop individual minors that will reflect the best possible elective curriculum, and will ensure that an urban concentration is maintained.

Required Courses .....	Semester Hours
URS 1000 Introduction to Urban Studies .....	3
URS 2000 An Inside Look at Urban Institutions .....	3
COM 2610 Introduction to Technical Writing .....	3
<i>Subtotal</i> .....	9

12 additional semester hours are required to complete the minor.

The elective courses are to be selected in consultation with a URS faculty advisor.

Electives .....	12
<i>Total</i> .....	21

## Institute for Women's Studies and Services

The Institute for Women's Studies and Services offers a range of academic courses, both interdisciplinary and in the disciplines, that study the diversity of women's lives and experiences in the U.S. and elsewhere. Students may elect to minor in women's studies or may choose an individualized degree program major or minor. Several women's studies courses are offered for General Studies course credit or in fulfillment of the Multicultural graduation requirement. Students seeking licensure as secondary education teachers in the social sciences may select from a number of women's studies courses in fulfilling their requirements. Also offered are cooperative education internships in business, government, and community organizations.

Women's studies, valuing a diverse curriculum, fosters the inclusion of material on all women, men of color, and ethnic minorities in courses throughout the college. It identifies and encourages faculty, administrative, and professional mentoring of women students and facilitates collaborative interdisciplinary research on women.

The institute also provides support services for all female students whether or not they elect women's studies courses. These services include advising, information, and referral; workshops, conferences, and seminars; a newsletter; resources such as *The Community Resource and Action Guide* and *The Scholarship Search* and a small multimedia library containing books, periodicals, manuscripts, videotapes and audio tapes, and newspaper articles focused on women's issues. Information and application materials for a number of scholarships are available through the institute, among them the Pamela McIntyre-Marcum Scholarship, scholarships from several local branches of the American Association of University Women, and the Executive Women International Scholarship. During the academic year, the institute convenes the interdisciplinary Front Range Feminist Scholars Colloquium, bringing together faculty, graduate students, and independent scholars from the metropolitan area to share research, curriculum development, and applications of feminist scholarship. The institute also engages in cooperative ventures with women's organizations in education, business, government, and the community, for example, the Colorado Women's Agenda, and the Colorado Coalition for Women's History. Finally, to encourage and recognize excellence, the institute sponsors Outstanding Women Awards annually in the spring.

### Women's Studies Individualized Degree Program

The objectives of both the individualized major and the minor include heightened awareness for women themselves; review of the cultural patterns that define women; study of the

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historical achievements of women in all disciplines; and exploration of emerging needs and opportunities for women. Emphasis is on both personal and professional growth. These objectives are met within the context of the new scholarship on women, including women of color, ethnic minority women, lesbians, women with disabilities, and international women.

Through the Center for Individualized Learning, students may construct an individualized interdisciplinary major combining work in women's studies with work in other disciplines. Students should consult the director of the Institute of Women's Studies and Services and the director of the Center for Individualized Learning to initiate planning. The women's studies individualized degree program is appropriate for any student, particularly those who plan to work specifically with female populations. Faculty strongly recommend a cooperative education internship.

A women's studies degree may be combined effectively with courses in management, organizational development, psychology, history, English, education, social work, nursing, human services, law enforcement, advertising, public relations, marketing, finance, and other fields appropriate to the student's interest. Students gain a sensitivity to women's issues and are thus prepared to work with both general and female populations in a variety of areas.

Employment opportunities for women's studies students may be found in managing women's resource centers, rape crisis programs, and battered women's shelters. Students might also work in community counseling and consulting or develop workshops or special programming for women in business and industry. Graduates are also employed in banking and as executives in professional associations. Students who plan to work in higher education, law, or medicine may find a women's studies degree a useful base for graduate or professional study.

### Minor

Also interdisciplinary, the women's studies minor uses faculty expertise from many different departments. Faculty strongly recommend a cooperative education internship.

A women's studies minor is appropriate for students in education, guidance and counseling, law enforcement, human services, business management, advertising, public relations, communication, liberal arts, and the behavioral and social sciences.

Men are welcome and encouraged to study the scholarship that focuses on women. They may find from such study a conceptual framework that will enable them to better understand, appreciate, work, and live with women.

Required Courses .....	Semester Hours
WMS 1001 Introduction: Woman in Transition .....	3
WMS 1650 Women in United States History .....	3
WMS 3310 Women and the Law .....	3
WMS 3510 Feminist Theory .....	3
WMS 4750 Senior Seminar .....	3
Electives .....	9
<i>Total</i> .....	24

In addition to the core courses, 9 semester hours of electives acceptable to or taught through women's studies are required, bringing the total number of semester hour credits for a women's studies minor to 24. These courses, some of which are interdisciplinary, are selected in consultation with the women's studies faculty and are approved by the institute.

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Core courses are supplemented each semester by topics, current issues, and cluster courses (WMS 3420, WMS 3440, WMS 3450, WMS 3460, WMS 3670, and WMS 4250); in addition, students should check the current *Class Schedule* for other relevant offerings. Appropriate electives are often listed in other departments and cross-listed with women's studies. For example, students may take WMS 1650 (HIS 1650) for either women's studies credit or for credit in history. Similar offerings are available in humanities, fine arts, and social and behavioral sciences. Students should check the *Class Schedule* each semester for appropriate cross-listed courses. Students are urged to get advising early in their course of study and to plan their programs with care, as some courses are offered only once each year.

### Certificate Program Available:

#### CAREER AND PERSONAL DEVELOPMENT

WMS 234A Time Management .....	1
WMS 234B Stress Management .....	1
WMS 234C Self-Esteem .....	1
WMS 234D Assertiveness .....	1
WMS 234F Sex Harassment/Discrimination ....	1
WMS 234G Career Evaluation Workshop .....	1
WMS/SPE 2770 Gender and Communication .....	3

For more information, call Ms. Barb Omdahl, 303-741-6394

## **School of Professional Studies**

The School of Professional Studies offers various degree and licensure programs that prepare students for success in specific careers while providing a broad educational background for career and life enhancement. The academic programs comprise three areas of study: teacher education, technology, and public service professions. The school includes 10 academic departments and various administrative units. There are more than 250 full- and part-time faculty, administrators, and support personnel in the School of Professional Studies who are committed to helping students attain their career goals.

### **Programs:**

#### **Public Service Professions**

- [Criminal Justice and Criminology](#)
- [Health Professions](#)
- [Hospitality, Meeting and Travel Administration](#)
- [Human Performance, Sport and Leisure Studies](#)
- [Human Services](#)
  - [Center for Addiction Studies](#)
  - [Center for High Risk Youth](#)
  - [Center for Nonprofit Organization Administration](#)

#### **Teacher Education**

- [Early Childhood, Elementary and Special Education](#)
  - Child Development Center (for information call 303-556-6228)
- [Reading](#)
- [Secondary Education](#)
  - Clinical Services (for information call 303-556-2652)
  - Teachers for Colorado (for information call 303-556-5352)

#### **Technology**

- [Aviation Management and Aviation Technology](#)
- [Civil Engineering Technology](#)
  - [Surveying and Mapping](#)
- [Electrical Engineering Technology](#)
- [Industrial and Technical Studies](#)
- [Mechanical Engineering Technology](#)
- [Technical Communications](#)

### **Aerospace Science Department**

Colorado is one of the nation's important aerospace centers. Military installations, major aerospace industries, increased interest in private and corporate flying and the airlines that serve Denver provide many employment opportunities. The local Federal Aviation Administration (FAA) and other government offices are excellent sources of information. Because of this proximity, students have the opportunity to visit these facilities and to take courses that are taught by personnel from the various organizations. The bachelor degree programs described below have been carefully planned to meet the needs of the student and the industry. All of the technical courses have been developed in

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cooperation with the FAA and prospective employers. Students who have completed these courses are eligible to take a variety of FAA examinations leading to certification.

The aviation management degree program prepares graduates to enter administrative positions within the various segments of the aviation industry. The program is accredited by the Council of Aviation Accreditation.

Airframe and powerplant (A&P) courses are not offered by MSCD. However, students holding a valid FAA airframe and powerplant certificate from a recognized Part 147 school may apply for 25 hours of credit toward a bachelor of science degree, provided that certain validation papers are presented with the application and a comprehensive exam is passed.

The department includes the World Indoor Airport (WIA), a unique flight simulation laboratory. The WIA is an integrated flight and air traffic control simulator lab with fixed base operator and flight service station services available. A crew resource management lab and student computer tutorial lab make up the other components of the WIA.

## **Bachelor of Science in Aerospace Science**

The Aerospace Science Department offers baccalaureate degree programs with majors in the following areas:

### **Aviation Management (AMG) Aviation Technology (ATV)**

General Aviation/Air Carrier Concentration (AMG5) Air Carrier/General Aviation Concentration Airway Science Management Concentration (AMG2) (ATV1)

Airway Science Maintenance Management Concentration Aircraft Systems Management Concentration (AMG4) (ATV2)

## **Minors**

Airframe and Powerplant Mechanics (APL) Private Pilot (PRP)  
Aviation Management (AMG) Aviation Technology (ATV)

These programs combine a thorough, practical, and technical training background with a general college education to prepare the graduate for a wide variety of careers in the aerospace industry. These four-year bachelor degree programs have been developed in the two-plus-two concept (a bachelor of science degree program built upon an associate of applied science two-year degree). This concept makes it easy for a community/junior college graduate in an aerospace program to transfer to MSCD and earn a bachelor of science degree in the college's aviation program. In order to be awarded the bachelor of science degree, the student must meet the college's general requirements for the bachelor's degree listed in this *Catalog* under Requirements for All Bachelor's Degrees.

## **FAA-Approved Ground School**

MSCD's Aerospace Science Department is a fully certified and FAA-approved ground school for the private, instrument, commercial and flight and ground instructor FAA certificates and ratings. Veterans Administration flight students should see the Aerospace Science Department chair for information on approved flight training programs.

## **Flight Courses**

Flight training is arranged by the student. Students must receive permission from the Aerospace Science Department before enrolling in flight courses. The cost of flight training

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is in addition to regular tuition and college services fees. This cost varies depending upon how frequently the student is able to fly during the semester and how much time is required to become proficient. The college instructor helps the student achieve an understanding of the relationship of flight theory to flight practice in order to acquire the knowledge required to meet FAA certification standards.

Students receiving Financial Aid assistance who are taking flight training for credit must make arrangements with the flight training schools contracted by The Metropolitan State College of Denver. Students not receiving Financial Aid assistance can obtain their FAA flight certificates from any approved FAA training program and submit the certificates in order to graduate.

Because MSCD does not currently have contracts with VA-approved flight schools, students receiving VA benefits cannot receive any academic credit for the flight training courses.

### Credit by Examination Procedures

The basic provision for obtaining credit-by-examination (a maximum of 30 semester hours of credit) is outlined in this *Catalog* under Academic Information. The following procedures are established by the Aerospace Science Department to implement this provision:

- Students entering MSCD for the first time must apply for credit by examination during the first three weeks of the first semester. All examinations must be completed within the first semester.
- Students will not be approved to take an examination for a course with a lower number than any course they have taken previously.
- Students who are registered for but have not completed a higher-numbered course must complete the examination for the lower-numbered course within the first three weeks of the semester.
- Examinations will not be graded during the summer session.
- Courses authorized for credit by examination and the appropriate FAA license or rating follow:

### FAA Course Certificate Title Required .....Semester Hours

AES 1100 Aviation Fundamentals Private.....	6
AES 1800 Commercial/Instrument Ground Commercial/Instrument .....	6
AES 3000 Aircraft Systems and Propulsion Flight Engineer .....	3
AES 3530 Aerodynamics Flight Engineer .....	3
AES 4040 Aircraft Performance Flight Engineer .....	3
AES 4500 Flight Multi-Engine Multi-Engine .....	1
AES 4510 Flight Instructor Flight Instructor .....	1
AES 4520 Flight Instructor-Instrument Flight Instructor .....	1
AES 4530 Flight Instructor-Multi-Engine Flight Instructor Multi .....	1
AES 4550 Flight Helicopter Helicopter .....	1
AES 4570 Airline Transport Pilot ATP Rating .....	1
AES 4580 Turbojet Flight Engineer Flight Engineer .....	4

### Bachelor of Science Degree in Aerospace Science

Students seeking a bachelor of science degree with a major in aerospace science have five options, three in aviation management (AMG) and two in aviation technology (ATV). All must complete the 34 hours of General Studies specified by the Aerospace Science Department. *The Aerospace Science Department Handbook*, available in the Auraria Book Center, lists the required General Studies courses and a suggested course sequence for

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each major. If your major is in Aerospace Science, you must receive at least a grade of "C" in all AES program courses. The program requirements for each major follow:

### General Studies Required Courses .....Semester Hours

#### Level I

Composition: ENG 1010 and ENG 1020.....	6
Mathematics: MTH 1110 or MTH 1310 or MTH 1400 or MTH 1410 .....	4
Communications: SPE 1010 .....	3

#### Level II

Historical: Approved Elective .....	3
Arts & Letters: Approved Electives .....	6
Social Sciences: ECO 2010 and ECO .....	6
Natural Sciences: PHY 1250 .....	6
General Studies Total .....	34

### Aviation Management (AMG)

General Aviation/Air Carrier Concentration (AMG5) .....	88
Airway Science Management Concentration (AMG2) .....	86
Airway Science Maintenance Management Concentration (AMG4) .....	88
(includes 25 semester hours for A&P certificate)	

### Aviation Technology (ATV)

Air Carrier/General Aviation Concentration (ATV1)* .....	86
(includes non-AES minor or 18 hours of AES approved electives)	
Aircraft Systems Management Concentration (ATV2)** .....	87

*\*ATV1 majors must have an FAA commercial pilot certificate with an instrument rating and the FAA advanced ground instructor certificate or certified flight instructor certificate to receive the bachelor of science degree.*

*\*\*ATV2 majors must have an FAA commercial pilot certificate with instrument and multi-engine ratings and the FAA certified flight instructor and instrument flight instructor certificates to receive the bachelor of science degree.*

### Aviation Management (AMG)

#### Major for Bachelor of Science

#### General Aviation/Air Carrier Management Concentration (AV1-AMG5)

Required Courses .....	Semester Hours
AES 1100 Aviation Fundamentals .....	6
AES 1400 Aviation Weather .....	3
AES 2220 Flight Dispatcher/Load Planning .....	3
AES 3220 Aviation Law and Risk Management .....	3
AES 3230 Airline Management .....	3
AES 3240 Airline Planning .....	3
AES 3850 Human Factors and Physiology of Flight . .....	3
AES 4200 Airport Planning .....	3
AES 4210 Airport Management .....	3
AES 4230 General and Business Aviation Operations .....	3

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AES 4240 Air Cargo .....	3
AES 4870 Aviation Safety Program Management .....	3
AES 4910 Aviation Management Problems and Job Targeting .....	3
COM 4790 Senior Seminar in Technical Communications .....	3
Subtotal .....	45

### Additional Required Courses

PSY 1001 Introduction to Psychology .....	3
MTH 1210 Introduction to Statistics .....	4
COM 2610 Introduction to Technical Writing	
-or-	
SPE 3100 Business and Professional Speaking .....	3
Subtotal .....	10

Plus a minimum of 6 semester hours of approved AES courses .....	6
General Studies for all AES majors .....	34
XXX Electives* .....	9
Minor in the School of Business or approved business electives.	18
Total .....	122

*\*Nine semester hours of electives (approved by the AES department) including an approved CMS course (if no other CMS courses are in the program or if computer proficiency is not demonstrated to the CMS department).*

## Airway Science Management Concentration (AV2-AMG2)\*

Required Courses .....	Semester Hours
AES 1100 Aviation Fundamentals .....	6
AES 3220 Aviation Law and Risk Management .....	3
AES 3230 Airline Management .....	3
AES 3240 Airline Planning .....	3
AES 3850 Human Factors and Physiology of Flight .....	3
AES 4200 Airport Planning .....	3
AES 4210 Airport Management .....	3
AES 4230 General and Business Aviation Operations .....	3
AES 4240 Air Cargo .....	3
AES 4870 Aviation Safety Program Management .....	3
AES 4910 Aviation Management Problems and Job Targeting .....	3
COM 4790 Senior Seminar in Technical Communications .....	3
Subtotal .....	39

Plus a minimum of 9 semester hours of approved AES courses .....	9
General Studies for all AES Majors .....	34
Additional Required Courses (6 hours minimum)	
PSY 1001 Introduction to Psychology .....	3
MTH 1210 Introduction to Statistics .....	4
MTH 1320 Calculus for the Management and Social Sciences* .....	3
COM 2610 Introduction to Technical Writing	
-or-	
SPE 3100 Business and Professional Speaking .....	3
Subtotal .....	13



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### Management

MGT 3000 Principles of Management .....	3
MGT 3530 Human Resource Management .....	3
MGT 4000 Management Decision Analysis .....	3
MGT 4530 Organizational Behavior .....	3
MGT 4610 Labor/Employee Relations .....	3
MGT Elective (3000/4000-level) .....	3
<i>Subtotal</i> .....	18

### Computer Information Systems

CMS 2010 Principles of Information Systems .....	3
CMS 3270 Micro Based Software .....	3
CMS Approved Elective (CMS 2110, CMS 3060, CMS 3230) .....	3
<i>Subtotal</i> .....	9
<i>Total Hours Required</i> .....	122

*\*Note: Prerequisite for MTH 1320 is MTH 1310 or MTH 1110 or MTH 1400; MTH 1410 may be substituted for MTH 1320.*

## Aviation Management (AMG)

### Major for Bachelor of Science

### Airway Science Maintenance Management Concentration (AV4-AMG4)\*

*\*This is an approved FAA airway science concentration.*

Required Courses .....	Semester Hours
Airframe and Powerplant Certificate .....	25
AES 1100 Aviation Fundamentals.....	6
AES 2150 Avionics for Aviators .....	3
AES 3220 Aviation Law and Risk Management .....	3
AES 4140 DC-10 Systems .....	4
AES 4870 Aviation Safety Program Management .....	3
AES 4910 Aviation Management Problems and Job Targeting ...	3
COM 4790 Senior Seminar in Technical Communications .....	3
<i>Subtotal</i> .....	50

Plus a minimum of 6 semester hours selected from the following:

AES 3230 Airline Management .....	3
AES 3240 Airline Planning .....	3
AES 3850 Human Factors and Physiology of Flight .....	3
AES 3870 Aircraft Accident Investigation .....	3
AES 3980 Cooperative Education .....	6
<i>Subtotal</i> .....	6

General Studies for All AES Majors .....

	34
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Additional Required Course (8 hours minimum)

CHE 1100 Principles of Chemistry.....	5
MTH 1210 Introduction to Statistics .....	4
-or-	

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MTH 1320 Calculus for the Management and Social Sciences ..3  
*Subtotal* .....8-9

### Management

MGT 3000 Principles of Management .....3  
MGT 3530 Human Resource Management .....3  
MGT 4000 Management Decision Analysis .....3  
MGT 4530 Organizational Behavior .....3  
MGT 4610 Labor/Employee Relations  
-or-  
MGT Elective (3000/4000-level) .....3  
*Subtotal* .....15

### Computer Information Systems

CMS 2010 Principles of Information Systems .....3  
CMS 3270 Micro Based Software .....3  
CMS Approved Elective (CMS 2110, CMS 3060, or CMS 3230) ...3  
*Subtotal* .....9  
*Total Hours Required* .....122-123

## Aviation Technology (ATV)

### Major for Bachelor of Science

### Air Carrier/General Aviation Concentration (AT1-ATV1)

Required Courses .....	Semester Hours
AES 1100 Aviation Fundamentals .....	6
AES 1400 Aviation Weather .....	3
AES 1710 Single Engine Flight Simulation I	
-or-	
AES 1760 Single Engine Flight Simulation II .....	3
AES 1800 Commercial/Instrument Ground .....	6
AES 2710 Instrument Flight Simulation I .....	3
AES 3000 Aircraft Systems and Propulsion .....	3
AES 3460 Weather for Aircrews .....	3
AES 3530 Aerodynamics .....	3
AES 3710 Multi Engine Flight Simulation I	
-or-	
AES 4710 Turbo Prop Flight Simulation .....	3
AES 3850 Human Factors and Physiology of Flight.....	3
AES 4040 Aircraft Performance .....	3
AES 4370 Advanced Navigation Systems .....	3
AES 4860 Aviation Safety .....	3
AES 4910 Aviation Management Problems and Job Targeting .....	3
COM 2610 Introduction to Technical Writing .....	3
COM 4790 Senior Seminar in Technical Communications .....	3
Advanced Ground Instructor Certificate .....	0
Professional Pilot Documentation .....	0
<i>Subtotal</i> .....	54

Plus a minimum of 15 semester hours selected from the following:

MTH 1320 Calculus for the Management and Social Sciences .....3  
AES 2050 Aviation History and Future Development .....3  
AES 2200 Fundamentals of Air Traffic Control .....3

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AES 2220 Flight Dispatcher/Load Planning .....	3
AES 2330 Precision Flight Team .....	3
AES 3220 Aviation Law and Risk Management .....	3
AES 3230 Airline Management .....	3
AES 3240 Airline Planning .....	3
AES 3550 FAA Instructor Certification-Ground .....	3
AES 3870 Aircraft Accident Investigation .....	3
AES 3980 Cooperative Education .....	6
AES 4130 Flight Engineer Duties and Responsibilities .....	4
AES 4140 DC-10 Systems .....	4
AES Approved upper-division elective .....	3
CMS 2010* Principles of Information Systems .....	3
CMS 3270 Micro Based Software .....	3
<i>Subtotal</i> .....	15

*\*Required if no computer courses are included in the program (or if computer proficiency has not been demonstrated to the CMS department).*

General Studies for All AES Majors .....	34
Minor or Approved Electives from outside Aerospace Science .....	18
<i>Total Hours Required</i> .....	121

## Aviation Technology (ATV)

### Major for Bachelor of Science

### Aircraft Systems Management Concentration (AT2-ATV2)

Required Courses .....	Semester Hours
AES 1100 Aviation Fundamentals .....	6
AES 1400 Aviation Weather .....	3
AES 1710 Single Engine Flight Simulation I	
-or-	
AES 1760 Single Engine Flight Simulation II .....	3
AES 1800 Commercial/Instrument Ground .....	6
AES 2150 Avionics for Aviators .....	3
AES 2200 Fundamentals of Air Traffic Control .....	3
AES 2710 Instrument Flight Simulation I .....	3
AES 3000 Aircraft Systems and Propulsion .....	3
AES 3220 Aviation Law and Risk Management .....	3
AES 3460 Weather for Aircrews .....	3
AES 3530 Aerodynamics .....	3
AES 4040 Aircraft Performance .....	3
AES 4370 Advanced Navigation Systems .....	3
AES 4860 Aviation Safety .....	3
AES 4910 Aviation Management Problems and Job Targeting .....	3
AES 3710 Multi-Engine Flight Simulation I	
-or-	
AES 4710 Turbo Prop Flight Simulation .....	3
COM 2610 Introduction to Technical Writing .....	3
COM 4790 Senior Seminar in Technical Communications .....	3
Professional Pilot Documentation .....	0
Multi-Engine, CFI, CFII Documentation.....	0
<i>Subtotal</i> .....	60

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General Studies for All AES Majors .....34

### Additional Required Courses

MTH 1120 College Trigonometry

-or-

MTH 1320 Calculus for the Management and Social Sciences ...3

MTH 1210 Introduction to Statistics .....4

PSY 1001 Introduction to Psychology .....3

*Subtotal* .....10

### Management

MGT 3000 Principles of Management .....3

MGT 4530 Organizational Behavior .....3

MGT Elective (3000/4000-level) .....3

*Subtotal* .....9

### Computer Information Systems

CMS 2010 Principles of Information Systems .....3

CMS 3270 Micro Based Software .....3

CMS Approved Elective (CMS 2110, CMS 3060, CMS 3230) .....3

*Subtotal* .....9

*Total Hours Required* .....122

## Minors

Designed to afford majors in other disciplines the opportunity to develop an understanding of the aerospace world. AES majors may not elect the AMG or ATV minors. Exception: AT1-ATV1 majors may minor in Airframe and Powerplant Mechanics (APL).

### Aviation Management Minor (AMG)

Required Courses .....Semester Hours

AES 1100 Aviation Fundamentals .....6

AES 3220 Aviation Law and Risk Management .....3

*Subtotal* .....9

Plus 12 hours selected from:

AES 3000 Aircraft Systems and Propulsion .....3

AES 3230 Airline Management .....3

AES 3240 Airline Planning .....3

AES 3850 Human Factors and Physiology of Flight .....3

AES 4200 Airport Planning .....3

AES 4210 Airport Management .....3

AES 4230 General and Business Aviation Operations .....3

AES 4240 Air Cargo .....3

AES 4870 Aviation Safety Program Management .....3

AES 4910 Aviation Management Problems/Job Targeting .....3

*Subtotal* .....12

*Total* .....21

### Airframe and Powerplant Mechanics Minor (APL)

Required Courses .....Semester Hours

Completion of an FAA-approved Part 147 Airframe and

Powerplant program with appropriate college credit

hours awarded .....25

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Plus:

AES 4230 General and Business Aviation Operations .....	3
AES 4870 Aviation Safety Program Management .....	3
<i>Total</i> .....	31

### Private Pilot Minor (PRP)\*\*

Required Courses .....	Semester Hours
AES 1100 Aviation Fundamentals .....	6
AES 1400 Aviation Weather .....	3
AES 1710 Single Engine Flight Simulation I .....	3
Private Pilot Documentation .....	0
AES 2710 Instrument Flight Simulation I .....	3
AES 3850 Human Factors and Physiology of Flight .....	3

Plus one of the two following courses:

AES 3000 Aircraft Systems and Propulsion .....	3
AES 4040 Aircraft Performance .....	3
<i>Total</i> .....	21

*\*\*All private pilot minors must possess at least an FAA private pilot certificate.*

### Aviation Technology Minor (ATV)\*

Required Courses .....	Semester Hours
AES 1100 Aviation Fundamentals .....	6
AES 1400 Aviation Weather .....	3
AES 1800 Instrument/Commercial Ground .....	6
AES 3000 Aircraft Systems and Propulsion .....	3
AES 3460 Weather for Aircrews .....	3
AES 3850 Human Factors and Physiology of Flight .....	3
AES 4860 Aviation Safety (or approved elective for AV4 majors).....	3
AES XXXX Professional Pilot Documentation* .....	0
<i>Total</i> .....	27

*\*Must have FAA Commercial/Instrument to graduate.*

### Credit For Airframe and Powerplant Certificate

Students seeking credit for their A&P certificate must provide a copy of their certificate, a copy of the certificate of completion from the school where it was obtained, and beginning and ending dates of A&P school attendance. Students must also take three pass/fail examinations through the Aerospace Science Department.

There will be no extra tuition charge for the 25 credits, which can be applied to a student's transcript.

Credit is not automatically given for the A&P certificate. Students will be allowed to test as follows:

- General test-5 credit hours-pass/fail (Students can proceed to either of the next two examinations only if the general test is passed.)
- Airframe-10 credit hours
- Powerplant-10 credit hours

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The maximum amount of credits that can be earned is 25. Credit will be given individually for examinations two and three. If a student fails either the airframe examination or the powerplant examination, the department will determine which additional courses should be taken, and a maximum of 15 credits will be applied toward the major degree.

### **Air Force ROTC**

Air Force ROTC (UC-B) Folsom Stadium, 218  
University of Colorado at Boulder  
Boulder, Colorado 80309  
303-492-8351

U.S. Air Force ROTC offers several programs leading to a commission in the U.S. Air Force upon receipt of at least a baccalaureate degree.

#### **Standard Four-Year Program**

This program is in three parts: the General Military Course (GMC) for lower-division students; the Professional Officer Course (POC) for upper-division students; and the Leadership Laboratory (LLAB), attended by all cadets. Completion of the GMC is a prerequisite for entry into the POC. Completion of a four-week summer training course is required prior to commissioning.

#### **Modified Two-Year Program**

This program is offered to full-time, regularly enrolled degree students. It requires at least two years of full-time college (undergraduate or graduate level, or a combination). Those selected for this program must complete a six-week field-training program during the summer months as a prerequisite for entry into the POC the following fall semester.

#### **Leadership Lab**

All AFROTC cadets must attend LLAB (one and one-half hours per week). The laboratory involves a study of Air Force customs and courtesies, drills and ceremonies, career opportunities, and the life and work of an Air Force junior officer.

#### **Other AFROTC Programs**

Other programs are frequently available based on current Air Force needs. Any AFROTC staff member in Boulder at 303-492-8351 can discuss the best alternatives. Interested students should make initial contact as early as possible because selection is on a competitive basis. There is no obligation until a formal contract is entered.

#### **Air Force College Scholarship Program**

Students participating in Air Force ROTC may be eligible to compete for Air Force ROTC college scholarships. Students selected for this program are placed on scholarships that pay tuition, book allowances, nonrefundable educational fees, and a subsistence of \$150 per month, tax-free. All cadets enrolled in the POC receive a \$150 per month subsistence during the regular academic year. Two- and three-year scholarships are available to both men and women in all academic disciplines. In addition, there are special programs for minority students.

#### **Flight Opportunities**

Prior to entering the fourth year of the AFROTC program, qualified AFROTC students can compete for pilot allocations. Cadets are eligible to fly with the Civil Air Patrol as ROTC members.

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### **USAF Medical Programs**

Qualified pre-med or nursing students can compete for pre-med or nursing scholarships and programs. These scholarships and programs can lead to a rewarding career as an Air Force officer, serving as a doctor or nurse.

### **AFROTC Course Credit**

AFROTC courses are worth 16 credit hours toward graduation.

### **Registration**

Students who wish to register for AFROTC classes sign up for them through the normal course registration process. AFROTC classes begin with the AFR prefix.

## **Military Science (Army ROTC)**

Army ROTC (UC-B)  
University of Colorado at Boulder  
Campus Box 370  
Boulder, Colorado 80309  
(303) 492-6495

The United States Army offers a variety of scholarships and programs leading to a commission as a second lieutenant in the Army after receipt of a baccalaureate or graduate degree. Students from Denver area colleges attend classes at the Auraria Campus and at the Colorado School of Mines in Golden.

### **Standard Four-Year Program**

The Basic Course taken during the Freshman and Sophomore years is designed to introduce students to the Army. A variety of subjects such as first aid, land navigation and military history are covered. Junior and Senior students participate in Advanced Course classes and focus on leadership, Army doctrine, and the transition from student/cadet to Lieutenant. All students participate in a leadership laboratory one day per week. Completion of a six-week summer camp, usually between the Junior and Senior years is required.

### **Two-Year Program**

Under this program students may enter the Advanced Course during their Junior year without participating in the Basic Course. They receive credit for the Basic Course by attending a five-week summer camp between their Sophomore and Junior years or receive credit for prior military experience.

### **Army ROTC Scholarship Program**

The Army currently offers two, three and four-year scholarship opportunities, based on individual qualifications. In addition to tuition and fee assistance, students are eligible for a book stipend and \$150 per month subsistence payments during the school year.

### **Army ROTC Course Credit**

Army ROTC serves as elective credit in most departments. Exact course credit for Army ROTC classes will be determined by your individual academic advisor.

### **Registration**

Students desiring to register for Army ROTC should contact the recruiting officer at CU-Boulder at 303-492-3549 for more details.

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### Civil Engineering Technology Program

The specialized fields within civil engineering technology include programs in civil engineering technology, drafting, and surveying. The surveying program is a separate, specialized four-year program. The individual curriculum requirements are listed separately.

Civil engineering technology graduates apply engineering principles in performing many of the tasks necessary for the planning and construction of highways, buildings, railroads, bridges, reservoirs, dams, irrigation works, water systems, airports, and other structures. In planning for a construction project, they may participate in estimating costs, preparing specifications for materials, and in surveying, drafting, and design work. During the construction phase, they work closely with the contractor and the superintendent in scheduling field layout, construction activities, and the inspection of the work for conformity to specifications. In recent years, a major work area for civil and environmental engineering technology has involved environmental problems. This includes design and construction of water supply facilities, design of wastewater collection and treatment facilities. The development of environmental impact studies and environmental impact statements are also included.

Students must meet the following curriculum requirements for the various degrees, minors, and concentrations.

For every CET and SUR course, a minimum grade of "C" is required before a student can progress.

**For Surveying and Mapping, please see page 219 of this *Catalog*.**

#### Civil Engineering Technology Major for Bachelor of Science

The four-year bachelor of science degree is awarded upon completion of the required courses and a construction or structures concentration. This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Required Technical Studies .....	Semester Hours
CET 1100 Civil Technology .....	3
CET 1200 Technical Drawing I .....	3
CET 1210 Technical Drawing II .....	3
CET 2100 Structural Drawing .....	4
CET 2150 Mechanics I-Statics .....	3
CET 3100 Construction Methods .....	3
CET 3120 Engineering Economy .....	3
CET 3130 Mechanics of Materials .....	3
CET 3140 Mechanics of Materials-Laboratory .....	1
CET 3160 Mechanics II-Dynamics .....	3
CET 3170 Introduction to Structural Analysis .....	3
CET 3180 Fluid Mechanics I .....	3
CET 3190 Fluid Mechanics II .....	3
CET 3330 Environmental Technology Processes .....	3
CET 4130 Soils Mechanics .....	3
COM 2610 Introduction to Technical Writing .....	3
EET 2340 Technical Programming Applications .....	3
MET 3110 Thermodynamics .....	3
SUR 1520 Construction Surveying .....	4



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Approved Technical Elective .....	2
<i>Subtotal</i> .....	59

### Additional Requirements

CHE 1100 Principles of Chemistry .....	5
ECO 2010 Principles of Economics-Macro	
-or-	
ECO 2020 Principles of Economics-Micro .....	3
MTH 1400 Precalculus Mathematics .....	4
MTH 1410 Calculus I .....	4
MTH 2410 Calculus II .....	4
PHY 2311 and 2321 General Physics I/ General Physics Laboratory I .....	5
PHY 2331 and 2341 General Physics II/ General Physics Laboratory II .....	5
SPE 1010 Public Speaking .....	3
<i>Total</i> .....	33

### Structures Concentration

Required Technical Studies	
CET 4120 Concrete Design I .....	3
CET 4140 Concrete Design II .....	3
CET 4400 Steel Design I .....	3
CET 4410 Steel Design II .....	3
CET 4450 Timber Design .....	3
Approved Upper-division Technical Elective .....	3
<i>Total</i> .....	18

### Construction Concentration

Required Technical Studies	
SUR 2530 Route Surveying.....	4
CET 3110 Construction Estimating .....	3
CET 4120 Concrete Design I .....	3
CET 4400 Steel Design I .....	3
CET 4570 Construction Law .....	3
Approved Upper-division Technical Elective .....	3
<i>Total</i> .....	19

## Criminal Justice and Criminology Department

The present and future needs of U.S. society require greater numbers of highly educated people in criminal justice agencies at all levels of government. Criminal justice employers demand applicants who have had professional education. There is considerable interest among criminal justice practitioners to increase professionalism through education. The curriculum provides quality criminal justice education and prepares students interested in the study of police, law enforcement, probation and parole, corrections, juvenile agency work, criminal justice administration and private/corporate security. Course offerings within these professional fields are related to other programs at the college, including human services, business and the social sciences.

### Criminal Justice and Criminology Major for Bachelor of Science

The bachelor of science in criminal justice and criminology is designed to provide

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professional courses as well as a broad general education. The curriculum is structured for the student seeking either preservice or in-service education. Recognizing that many people who are interested in such education are already employed in some form of criminal justice work, and that many people have completed coursework at the community college level, the department has developed a four-year program that provides comprehensive fundamental subjects in the first two years (lower-division) and advanced, specialized or administrative subjects in the second two years (upper-division). The curriculum is structured to facilitate transfer from two-year police science/criminal justice programs. The department has an articulation agreement with the Colorado Community College System. The articulation agreement states that if a transfer student has completed the total basic requirements at any accredited Colorado community college, Metropolitan State College of Denver will consider the student's General Studies requirements completed.

Students must meet the college's requirements for the bachelor's degree including General Studies. they should consult with a faculty advisor regarding General Studies courses and the selection of criminal justice electives. The department recommends the following General Studies courses: BIO 1000, Human Biology for Non-Majors; PSY 1001, Introductory Psychology; and SOC 1010, Introduction to Sociology. A minor is not required.

### **Criminal Justice and Criminology Major for Bachelor of Science**

Required Courses .....	Semester Hours
CJC 1010 Introduction to the Criminal Justice System .....	3
CJC 1100 Evolutionary Legal Concepts in Criminal Justice .....	3
CJC 2100 Substantive Criminal Law .....	3
CJC 2120 Evidence and Courtroom Procedures .....	3
CJC 2140 Criminal Procedure .....	3
CJC 3120 Constitutional Law for Criminal Justice Professionals .....	3
CJC 3200 Criminal Justice Administrative Behavior .....	3
CJC 3350 Seminar in Delinquency Causation, Prevention and Control -or-	
CJC 3400 Criminal Behavior and Criminal Careers .....	3
CJC 3410 Criminal Justice and the Social Structure .....	3
CJC 4300 The American Correctional System .....	3
CJC 4650 Ethics for the Criminal Justice Professional .....	3
<i>Subtotal</i> .....	33

#### Required Electives

CJC*	18
Social Science**	12
<i>Subtotal</i>	30

\* *Electives selected in consultation with and approved by the department advisor allow for development of emphasis or specialty areas, certificate programs or general degree plan. Internship credit may apply to this elective area but no more than 6 semester hours are allowed.*

\*\* *Social science includes the following disciplines: anthropology, economics, history, political science, psychology and sociology.*

General Studies .....	33
Other electives .....	24
Required courses and required electives.....	63
<i>Total</i> .....	120

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There is no minor required for the CJC major.

### Minor in Criminal Justice and Criminology

CJC 1010 Introduction to the Criminal Justice System .....	3
CJC 1100 Evolutionary Legal Concepts in Criminal Justice .....	3
CJC 4650 Ethics for the Criminal Justice Professional .....	3
CJC Electives selected in consultation with and approved by the department advisor, at least 4 hours of which must be upper-division. ....	9
<i>Total</i> .....	18

## Education

The underlying theme of the teacher education program is The Teacher as a Decision Maker in Diverse Contexts. Students' programs include General Studies, majors and minors in academic disciplines, and teacher licensure coursework. All courses and field experiences expose students to a wide variety of content theories, models, and practices that will develop decision-making skills as teachers and enable teacher candidates to work with a wide range of students in a broad spectrum of settings. As they enter teaching, graduates will have the knowledge to teach state and national standards in the various content areas and to demonstrate skill in all professional licensure standards for teachers. Coursework and experiences are guided by the following:

- The practices of effective, decision-making teachers are grounded in philosophical beliefs, research, and theory.
- Decision-making teachers must be lifelong learners who recognize the needs of a diverse and changing society.
- The integration and application of knowledge from general education, academic specialization, and professional studies contribute to the development of effective teachers.
- Effective teachers are best prepared through extensive participation in a variety of teaching models and in a range of clinical and field experiences.
- Decision-making teachers effectively use reflective and critical thinking to translate theory into practice.

The teacher education program is the professional education area of the Professional Education Unit (PEU), consisting of faculty in the Schools of Professional Studies; Letters, Arts and Sciences; and Business. The program is fully accredited by the National Council for the Accreditation of Teacher Education and the Colorado Department of Education.

The teacher education program prepares students to teach. Academic departments in the School of Letters, Arts and Sciences, the School of Business and in the School of Professional Studies prepare students with the content knowledge to teach. The Department of Early Childhood, Elementary and Special Education and the Secondary Education Department offer teacher education courses, clinical experiences, and student teaching. The Reading program offers required professional courses for students in early childhood education, elementary education, and secondary education. The Reading program also offers a minor. The completion of a licensure program, in addition to the completion of a bachelor's degree in an approved major, prepares students to apply to the Colorado Department of Education for teacher licensure at designated grade levels.

The particular sequence of education courses to be taken is determined by the level at which a student wishes to teach. The education courses may be taken along with the bachelor's degree program or after the degree program has been completed. Licensure is

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granted by the Colorado Department of Education, based on recommendation by the director of the Office of Clinical Services, approval of appropriate documents, and payment of assessment fees. Students receive endorsements in the level and/or subject area in which they are qualified to teach. The teacher education program also provides outreach to in-service teachers, including first-year assistance, mentor training, and summer workshops.

Note: Every degree-seeking student must meet all requirements of the bachelor's degree program, including an approved major, a minor (in most cases), and the college's General Studies program as outlined in this *Catalog* under the chosen major. There is a list of approved majors or subject area endorsements to choose from (see below). PLEASE CONSULT WITH A FACULTY ADVISOR FOR GUIDANCE IN THE APPROPRIATE SELECTION OF A MAJOR, A MINOR, AND GENERAL STUDIES COURSES.

### **NOTICE TO PROSPECTIVE AND CURRENTLY-ENROLLED STUDENTS WHO PLAN TO ENROLL IN A TEACHER PREPARATION PROGRAM**

Pursuant to Senate Bill 99-154, which was enacted as law on June 1, 1999, every institution of higher education in Colorado, including Metropolitan State College of Denver, is revising its teacher preparation programs to meet new statutory and regulatory requirements. The new requirements apply to the following teacher preparation programs at MSCD:

#### **EARLY CHILDHOOD LICENSURE** with the following majors:

English, Mathematics, African American Studies, Speech Communication, History, Chicano Studies, Behavioral Science

#### **ELEMENTARY LICENSURE** with the following majors:

English, Mathematics, African American Studies, Speech Communication, Sociology, Spanish, Behavioral Science, Biology, History, Chicano Studies, Environmental Science, Land Use

#### **SECONDARY LICENSURE** with the following endorsements using the major(s) indicated:

Endorsement in English: English

Endorsement in Mathematics: Mathematics

Endorsement in Science: Biology or Physics or Land Use or Environmental Science

Endorsement in Foreign Language: Spanish or Modern Languages

Endorsement in Speech: Speech Communication

Endorsement in Social Studies: History or Political Science or African American Studies or Chicano Studies or Behavioral Science

Endorsement in Technology Education: Industrial & Technical Studies

#### **SPECIAL EDUCATION LICENSURE**

See department advisor for information regarding approved majors.

#### **K-12 LICENSURE** with the following endorsements using the major indicated:

Endorsement in Art: Art

Endorsement in Music: Music Education

Endorsement in Physical Education: Human Performance and Sport (Includes licensure for K-6 and 7-12)

#### **OTHER ENDORSEMENT:** Bilingual (English or Spanish major)

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The State Board of Education and the Colorado Commission on Higher Education (CCHE) will review all teacher preparation programs in Colorado between July 1, 2000 and July 1, 2001 to determine if they meet the new requirements. Any teacher preparation program that fails to do so will not be approved and may be discontinued by the CCHE. Major programs will not be discontinued as part of this review.

Because Metropolitan State College of Denver's revised teacher preparation program curricula were not finalized at the time this *Catalog* went to press, and because MSCD cannot guarantee that its teacher preparation programs will be approved by the CCHE, **prospective and enrolled students are hereby notified that any of the above-listed teacher preparation programs may be discontinued by the CCHE on July 1, 2001.** Students who are enrolled at MSCD and admitted to one of the above-listed teacher preparation programs prior to July 1, 2001 will be permitted to complete the program to which they were admitted although some course requirements may be modified after they are admitted to the program. If a teacher preparation program is discontinued, students in that program must complete the teacher preparation program's requirements **no later than June 30, 2005** to be eligible for licensure as teachers. Otherwise, to be eligible for licensure as teachers, students must enroll in and complete an approved teacher education program at MSCD or another institution.

Discontinuation of a teacher preparation program with specific majors and minors does not mean that the major and minor programs will be discontinued. Students may still receive their bachelor's degree in the major and minor they were pursuing. **Students planning to enroll in a teacher education program or seeking teacher licensure are urged to maintain regular contact with both their major advisor and their teacher preparation advisor to learn of the status of their MSCD teacher preparation program.**

### Provisional Admission

A provisional admission card will be issued to all entering students in the appropriate education department office or in the initial education class in which they are enrolled. With provisional admission, students are assigned an education advisor to consult during the first semester and who will remain their advisor throughout the program. Also, during the first semester, students should begin to develop a program plan and begin their teacher candidate portfolio. Students should also begin working with an advisor in their major area. Provisional admission is valid for one semester only. After provisional admission has expired, formal admission requirements must be met.

### Formal Admission

By the end of their first semester in the professional teacher preparation sequence, students must meet the following requirements for formal admission to the program. Students may not take additional teacher education courses until they meet these requirements. All requirements for formal admission must be met before the first day of the second semester of professional education classes. Faculty advisors are available to provide additional explanation of requirements listed.

- Students must have a minimum grade point average (GPA) of 2.5 on their most recent 30 semester hours of coursework completed at a regionally accredited institution of higher education. Early childhood licensure candidates who have not accrued 30 hours of college credit must have a minimum of 12 semester hours of college work.
- Students must demonstrate competence in oral expression. Students seeking bachelor's degrees should present evidence that they passed a college-level public speaking course with a grade of "B" or above. Students who earn a "C" may take an

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oral examination. Students who have bachelor's degrees but did not complete a public speaking course with a grade of "B" or above may take an oral examination.

- Students must complete and verify 50 clock hours of successful experience working with children or youth of the age they intend to teach.
- Students must submit the application for admission to the teacher education program to the appropriate education department office with the appropriate advisors' authorizing signatures and copies of transcripts of all college work.
- Students must show evidence of a negative tuberculosis test within the past year.
- Students must obtain a formal admission card from the appropriate education department office to present to all education instructors to verify that initial requirements have been met.
- Students must take the PLACE basic skills test.
- Transfer students may request consideration of education courses less than 7 years old that are a close match to MSCD's professional courses. Students should see an education advisor to assess which courses taken previously may be applied to teacher licensure.
- A student who has taken a licensure course at another institution must have left that institution in good standing and be eligible to return to that licensure program.
- Documentation of attendance at advising orientation for early childhood, elementary and special education programs.
- Secondary education students must provide evidence of an initial meeting with a major advisor.
- Completion of worker's compensation form and application for card.
- Initiation of CBI fingerprint clearance (form and money order or certified check).

## Eligibility for Student Teaching

Prior to applying to student teach, all teacher education students must pass the PLACE basic skills test. The test includes reading comprehension, mathematics, and a writing sample. Test registration materials for the PLACE, offered only four times a year in Colorado, are available from the teacher education department offices. Students must take the basic skills test during their first semester in a professional education class. Registration must be sent about six weeks prior to the exam. Notification of scores on the exam is received about six weeks after the exam. (Student Teaching: 303-556-2652)

Students begin the student teaching application process by attending the Pre-Student Teaching Application Orientation the semester prior to the semester of student teaching. The orientation is held the first Friday of the fall and spring semesters. The application deadline is the third Friday of September (for spring semester assignments) or the third Friday of February (for fall semester assignments). Summer semester student teaching is BY SPECIAL ARRANGEMENT and due the third Friday in February.

All students must:

- Successfully complete all other college programs and degree requirements.
- Successfully complete and document 200 hours of experience with youth of the age group the student is preparing to teach. This service may be with any youth group such as the Boy Scouts, Girl Scouts, sports teams, church groups, and education programs at partner schools. Experience may be paid or volunteer.
- Have a minimum GPA of 2.75 in all coursework or a 3.0 GPA on the last 45 credit hours.
- Successfully complete all professional courses required for licensure with a grade of "C" or better. Professional courses include professional education courses and all content major courses.

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- Have a physical examination report including tuberculosis clearance on file with the Student Health Services Office.
- Have approval of the appropriate screening committee, if applicable.
- Submit verification that the teacher candidate portfolio has been prepared and the program plan approved for student teaching by the student's education advisor.
- Pass the basic skills PLACE test.
- Complete at least 20 credit hours in residence at MSCD prior to student teaching.
- In addition, secondary and K-12 students must:
- Have a minimum GPA of 2.75 for all courses required in the major and all courses in teacher education.
- Complete all subject area courses in the student's teaching area required by the North Central Association of Colleges and Secondary Schools.
- Have complete evaluations from pre-student teaching field experiences.
- Have approval from a committee in the major in those departments in which a major/secondary education agreement is in place.

### **Recommendation for Licensure**

To be recommended for licensure to the Colorado Department of Education, students must:

- Complete student teaching and seminar with a "satisfactory" evaluation.
- Complete all requirements for a bachelor's degree in the student's major area.
- Complete all requirements in the professional education sequence.
- Provide verification from the college supervisor of student teaching that they have completed and presented their teacher candidate portfolio at one of the student teaching seminar sessions.
- Submit evaluations of the student teaching experience from the cooperating teacher and the college supervisor.
- Before teacher candidates apply to the Colorado Department of Education for licensure, they must have passed the last three of four PLACE assessments: Liberal Arts and Sciences, Professional Knowledge, and Content Area.

## **Early Childhood, Elementary and Special Education Department**

Program revisions are under consideration to comply with new state standards. Check with the department for late updates (303-556-6228). The Department of Early Childhood, Elementary and Special Education offers professional preparation for teaching and education-related careers. This department prepares students to apply to the Colorado Department of Education for provisional teacher licensure and endorsement to teach in public schools in Colorado in three areas: early childhood (preschool through third grade), elementary (K-6th grade) and special education, moderate needs: teacher I (ages 5 through 21). Minors are available in early childhood education, special education, bilingual education with endorsement) and parent education. Courses and workshops are offered to meet Colorado Department of Education requirements for renewal of teacher licenses and Colorado Department of Human Services group leader and director qualifications. A program for licensure in K-6 physical education is also available.

### **Professional Early Childhood Education Licensure Sequence**

The Early Childhood Licensure Program prepares students to teach preschool through grade three. Through the sequence of courses and field experience, the student satisfies all of Colorado's academic standards for licensure in early childhood education. Students should contact the Department of Early Childhood, Elementary and Special Education for information on approved academic majors and specific general studies requirements for licensure.

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Required Courses .....	Semester Hours
EDU 2340* Urban Early Childhood Education.....	3
EDU 2350* Urban Early Childhood Education Field Experience .....	2
EDU 2360 Expressive Arts for the Young Child .....	2
EDU 3350 Documentation, Assessment and Decision Making for Early Childhood ...	3
EDU 3370 Language Arts and Social Studies Methods for Early Childhood .....	3
EDU 3640 Basic Techniques of Instruction, Assessment and Management .....	3
EDU 4310 Parents as Partners in Education .....	3
EDU 4330 Science, Health and Mathematics for the Young Child .....	2
EDU 4370 Planning a Developmentally Appropriate Early Childhood Classroom ....	3
EDU 4390 Student Teaching and Seminar: Early Childhood (Preschool through Third Grade)(6, 8, 10 credits) .....	10
RDG 3120 Developing Print Literacy: Preschool-Grade 3 .....	4
SED 3600 The Exceptional Learner in the Classroom .....	3
<b>Total .....</b>	<b>41</b>

*\*These two courses must be taken concurrently.*

Highly recommended course:

EDT 3610 Introduction to Educational Technology .....	1-3
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### Early Childhood Administration

Students who wish to administer early childhood programs must meet the Colorado Department of Human Services qualifications by taking the early childhood minor plus additional courses specified by the Colorado Department of Human Services, as shown below. Students do not have to be admitted to the teacher licensure program to take this sequence of courses, nor do they have to be degree-seeking.

Required Courses .....	Semester Hours
Early Childhood Education Minor (see page 178) .....	22-25
Additional Required Courses for Administration	
EDU 3340 Administration of Early Childhood Programs .....	4
EDU 4310 Parents as Partners in Education	
-or-	
SOC 1010 Introduction to Sociology .....	3
HES 2040 Introduction to Nutrition .....	3
PSY 1001 Introductory Psychology .....	3
PSY 1800 Developmental Educational Psychology (prerequisite to all 3000- and 4000-level early childhood education courses) .....	4
<b>Total .....</b>	<b>39-42</b>

*Note: Students seeking only director qualifications may take only those courses required by the Colorado Department of Human Services. Colorado Department of Human Services regulations may be changed. Consult with the Early Childhood/Elementary Education Department for additional information.*

Highly Recommended Course:

HPS 2060 Emergency Rescue/First Responder and CPR .....	3
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### Professional Elementary Education Licensure Sequence

The Elementary Licensure Program prepares students to teach the multi-disciplinary curriculum in elementary classrooms kindergarten through sixth grade. Through the



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sequence of courses and field experiences, the student satisfies all of the State of Colorado's academic standards for licensure. Students should contact the Department of Early Childhood, Elementary and Special Education for information on approved academic majors and specific general studies requirements for licensure. Information meetings for new and prospective students are held on a weekly basis. Call 303-556-6228 to receive a list of meetings times and places.

Required Courses .....	Semester Hours
EDT 3610* Introduction to Educational Technology .....	2-3
EDU 3100 Social Foundations and Multicultural Education .....	5
EDU 3640 Basic Techniques of Instruction, Assessment and Management .....	3
EDU 3650 Elementary Instruction, Assessment and Management Internship ..	1
EDU 3750 Integrating Expressive Arts and Physical Activity in the Elementary Classroom .....	3
EDU 4100 Integrated Methods of Teaching Language Arts & the Social Studies: K-6.....	4
EDU 4105 Integrated Elementary Language Arts and Social Studies Internship .....	1
EDU 4120 Integrated Methods of Teaching Science and Mathematics: K-6 .....	4
EDU 4125 Integrated Elementary Math and Science Internship .....	1
EDU 4190 Student Teaching and Seminar: Elementary K-6 .....	10
RDG 3130 Literacy Instruction in Grades K-6 .....	5
SED 3600 The Exceptional Learner in the Classroom .....	3
<i>Total</i> .....	42-43

*\*Elementary Education licensure students taking EDT 3610 must register for 2 or 3 credit hours. Three credit hours should be elected by licensure students who wish to pursue advanced content area or grade-level technology skills.*

### Endorsement in both Early Childhood and Elementary Education

Students may receive endorsement in both early childhood and elementary education by fulfilling the requirements for the minor in early childhood education (see page 178) and the additional requirements as specified below:

Required Courses .....	Semester Hours
Early Childhood Education Minor .....	22-25

#### Additional Requirements

An acceptable major, General Studies coursework, and coursework in the elementary education professional sequence, which fulfills elementary licensure requirements.

ENG 3460 Children's Literature .....	3
RDG 3120 Developing Print Literacy: Preschool-Third Grade .....	4
An additional 6 semester hours of student teaching at the early childhood level .....	6
<i>Total</i> .....	35-38

### Special Education Moderate Needs: Teacher I Licensure

The Special Education Licensure program prepares teachers to work with students with mild/moderate needs at the K-12 (ages 5-21) level. Through the sequence of courses and field experiences, a student completing this program satisfies all of Colorado's academic standards for licensure. Students should contact the Early Childhood, Elementary and

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Special Education Department for information on approved academic majors and specific general studies requirements for licensure.

Required Courses .....	Semester Hours
SED 3000 Diversity, Disability and Education .....	3
RDG 3130 Literacy Instruction in Grades K-6 .....	5
-or-	
RDG 3280 Teaching of Reading and Writing in the Content Areas .....	4
SED 3600 The Exceptional Learner in the Classroom .....	3
EDT 3610 Introduction to Educational Technology .....	1-3
SED 3700 Educational Exceptionality and Human Growth .....	3
SED 3800 Teaching Students with Learning and Behavior Disorders .....	3
SED 3850 Diagnosis and Evaluation of Exceptional Students .....	3
SED 4000 Collaborative Practices in Special Education .....	3
SED 4200 Language Development and Learning Disabilities .....	3
SED 4250 Classroom Management for Exceptional Students .....	3
SED 4430 Assessment and Instruction Practicum: Elementary Education..	4
SED 4440 Assessment and Instruction Practicum: Secondary Education ..	4
SED 4490 Special Education Student Teaching and Seminar .....	6-12
Total .....	43-52

## Minors

The minor that a teacher education student chooses fulfills the requirements for the bachelor's degree program. No minor is required as part of the teacher education program. However, the following minors are offered by the Department of Early Childhood, Elementary and Special Education: early childhood education, special education/gifted education, parent education and bilingual/bicultural education. The Reading program offers the reading minor. To satisfy the minor requirements for the bachelor's degree program, a student may choose one of these minors or one of the other minors described in this *Catalog*. Students are advised to take a minor that is also a teaching field. Secondary licensure students may pursue these two professional minors: special education/gifted education and reading.

### Bilingual/Bicultural Education Minor

The teacher education program offers a minor in bilingual/bicultural education, an interdisciplinary program sponsored by the Chicano Studies, Early Childhood, Elementary and Special Education, Modern Languages Departments, and Reading program. The principal objective of the bilingual/bicultural minor is to prepare future teachers to meet the needs of all students, particularly the linguistically different student. Among other goals, this minor prepares teachers to conduct all phases of classroom instruction in a bilingual and bicultural setting and to ensure the development of English language literacy. In the developmental sequence, the minor provides the potential teacher with a background of Mexican heritage and an understanding of present-day Hispanic/Chicano culture.

Proficiency in the Spanish language is required of all students before they complete the minor. This proficiency prepares the teacher to understand and further develop the native tongue of bilingual children while offering a second language to many other children. In addition, the minor provides the student with sufficient clinical and academic experiences and resources to develop, implement, and evaluate curricular methods, techniques, and materials in the bilingual/bicultural classroom. The practicum in bilingual/bicultural education is required.

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Required Courses and Recommended Sequence .....	Semester Hours
CHS 1020 History of the Chicano in the Southwest: Mexico and U.S. Periods ..	3
CHS 3300 Education of Chicano Children .....	3
EDU 3510 Perspectives in Bilingual/Bicultural Education .....	4
EDU 4510 Development of Methods and Materials for the Bilingual/Bicultural Classroom.....	4
EDU 4990* Student Teaching and Seminar (Bilingual)	
-or-	
EDU 4520** Practicum in Bilingual/Bicultural Education.....	3-6
RDG 3530 Techniques of Teaching Reading to Non-English Speakers .....	2
RDG 3580 Reading in the Bilingual/Bicultural Classroom .....	3
SPA 3100 Spanish Terminology for the Bilingual Classroom .....	3

One of the following courses:

SPA 3110 Advanced Conversation .....	3
SPA 3150 Spanish Phonetics: Theory and Practice .....	3
SPA 3220 Folklore and Culture of the Mexican Southwest .....	3
<i>Total</i> .....	28-31

*\*Required for bilingual endorsement.*

*\*\*Required for students seeking minor only.*

### Preparation Requirements

Language Proficiency: Proficiency in oral and written Spanish is determined by a committee composed of Spanish-speaking members of the Modern Languages, Chicano Studies, and Early Childhood, Elementary and Special Education Departments. The four-skills exam is one of the assessments that is used as the proficiency measure. Students who fail to achieve a satisfactory score on the proficiency examination are required to take sufficient Spanish classes to enable them to pass the proficiency examination. The following courses are designed to help students meet the proficiency requirements before the completion of the bilingual/bicultural minor:

SPA 1010 Elementary Spanish I .....	5
SPA 1020 Elementary Spanish II .....	5
SPA 2110 Intermediate Spanish .....	3
SPA 2120 Spanish Reading and Conversation .....	3

### Early Childhood Education Minor

The minor in Early Childhood Education will be of interest to those students who are pursuing elementary licensure and are most interested in grades K-3 and are planning careers as directors or workers in preschool settings or intend to pursue graduate studies in special education, psychology, social work or other related fields with a focus on working with young children.

Required Courses .....	Semester Hours
EDU 2340* Urban Early Childhood Education .....	3
EDU 2350* Urban Early Childhood Education Field Experience .....	2
EDU 2360 Expressive Arts for the Young Child .....	2
EDU 3350 Documentation, Assessment and Decision Making for Early Childhood..	3
EDU 3370 Language Arts and Social Studies Methods for Early Childhood .....	3
EDU 4310 Parents as Partners in Education .....	3
EDU 4370** Planning a Developmentally Appropriate Early Childhood Classroom.	3

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EDU 4380\*\* Teaching Practicum in Pre-Primary Early Childhood Education ...3-6

*Subtotal* .....22-25

*\*These two courses must be taken concurrently.*

*\*\*These two courses must be taken concurrently.*

*Note: PSY 1800 Developmental Educational Psychology is a prerequisite to all 3000- and 4000-level early childhood education courses.*

Additional Requirements for Added Endorsement (dual licensure)

An acceptable major, General Studies coursework and coursework in the elementary education professional sequence that fulfills elementary licensure requirements.

RDG 3120 Developing Print Literacy: Preschool-Grade 3 .....4

ENG 3460 Children's Literature .....3

An additional 6 semester hours of student teaching at  
the early childhood level .....6

*Total* .....35-38

### Special Education Minor

The minor in special education is designed to prepare teachers, physical educators, counselors, and professionals to work with exceptional students in educational, therapeutic, and recreational settings. The minor may also lead to a graduate program in special education. Students who pursue this area of study may choose to pursue the standard minor (which is 18 hours of credit), or MSCD/UCD composite program (which is 24 hours of credit from MSCD, plus an additional 18 hours of UCD graduate credit), which leads to Teacher I endorsement. A program for licensure in special education and for dual licensure is being piloted. Contact the Department of Early Childhood, Elementary and Special Education for information 303-556-6228.

### Special Education Concentration

Choose one of the following two programs (MSCD or MSCD/UCD Teacher I).

#### MSCD

SED 3600 The Exceptional Learner in the Classroom .....3

PLUS a minimum of 15 hours from the following program:

SED 3700 Educational Exceptionality and Human Growth .....3

SED 3800 Teaching Students with Learning and Behavior Disorders .....3

SED 3850 Diagnosis and Evaluation of Exceptional Students .....3

SED 4000 Collaborative Practices in Special Education .....3

SED 4200 Language Development and Learning Disabilities .....3

SED 4250 Classroom Management for Exceptional Students .....3

*Total* .....18

#### MSCD/UCD Teacher I

SED 3600 The Exceptional Learner in the Classroom .....3

SED 3700 Educational Exceptionality and Human Growth .....3

SED 3800 Teaching Students with Learning and Behavior Disorders .....3

SED 3850 Diagnosis and Evaluation of Exceptional Students .....3

SED 4000 Collaborative Practices in Special Education .....3

SED 4250 Classroom Management for Exceptional Students .....3

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SED 4490 Special Education Student Teaching and Seminar .....	6-12
<i>Total Hours Required</i> .....	24

PLUS additional UCD courses

### Parent Education Minor

The parent education minor is for students entering professions involved with children and families. It provides the necessary knowledge and skills for working with parents. Also, the program addresses a need identified in the community for people with specific preparation for the role of parent educator. Many agencies offer or are interested in offering parent education programs, yet no specific preparation for that role has been available. This minor is designed to make the field of parent education more credible by providing students with education for that role and to give students a set of skills that are increasingly in demand.

The minor is seen as particularly appropriate for students entering family- and child-related fields, including education, health care management, human services, criminal justice (especially juvenile justice), nursing and nurse practitioner programs, psychology, sociology, social welfare, speech, and women's studies. People entering these fields may be in a position to develop and conduct parent education programs; a minor in parent education should serve them well in the employment market. Other fields might also provide opportunities to use this background. Parent education happens in settings ranging from churches to industry and is not limited to educational settings in the usual sense.

The parent education minor encompasses three areas of preparation. One set of classes is intended to give students basic information necessary for effective parenting (child development, parenting techniques, family management and health care). The second facet of the program gives students the skills necessary for developing and conducting parent education programs such as group techniques and program development. The third component of the program entails actual field experience working in parent education programs. This experience is incorporated into a number of classes and is the central component of the final course in the minor. A field placement is required in the last semester. Placement opportunities include parent education in hospitals, social service agencies, public and private schools, and business and industry. Students work closely with a parent education program advisor to ensure an appropriate field placement. For more information 303-556-2759.

Required Courses .....	Semester Hours
PAR 2050 Introduction to Parent Education .....	3
PSY 1800 Developmental Educational Psychology	
-or-	
PSY 2210 Psychology of Human Development	
-or-	
PSY 3250 Child Psychology .....	3-4
HSP 2040 Family Function, Dysfunction and Therapy .....	4
PSY 2240 Parenting Techniques .....	3
PAR 3070 Working with the Contemporary Family .....	3
HES 3070 Parental Health Care Issues .....	3
EDU 4070 Designing and Implementing Programs for Adult Learners .....	3
PAR 4890 Parent Education Field Placement .....	3
Total .....	25-26

Minimum hours required for the minor are 25-26 (depending on courses selected). If the parent education minor is combined with a major in the Education, Human Services,

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Nursing, or Psychology Departments, the combined total semester hours for the major and minor must be 60 hours. Such a program must include all courses required for the major and those listed here as required for the parent education minor. Approval by both departments will be necessary for such a combined program.

*Note: For descriptions of other courses included in the minor, see appropriate department listings: EDU-Education; HES-Health Services; HSP-Human Services; NUR-Nursing; PSY-Psychology; SOC-Sociology; WMS-Women's Studies.*

## Secondary Education Department

### Licensure in Secondary and K-12 Education

The Secondary Education Department offers professional preparation for teaching and education-related careers in collaboration with the Reading program and various major departments. This department prepares students to apply to the Colorado Department of Education for provisional teacher licensure to teach in secondary schools (7-12 grades) with endorsements in:

English Modern Languages Social Studies

Industrial Arts (French, Spanish, German) Spanish

Mathematics Physical Education Speech

Science

The Secondary Education Department, 303-556-6227, also offers a K-12 professional teaching sequence in collaboration with three major departments. These K-12 sequences prepare students to apply for K-12 provisional licensure with endorsements in art, music, or physical education.

All secondary and K-12 students must have two advisors, one in secondary education and one in their major area. All but two of the 12 majors a secondary education student can choose from are found in this *Catalog* under the major department. Two of the majors, science and social studies, do not match a major found in this *Catalog*, so they are outlined in this section.

### Secondary Professional Education Sequence

An additional program in middle-level education is being proposed, as is a new secondary major in business. Check with the Secondary Education Department for further information. In addition to a major in one of the above areas, and a minor as required, students must complete the following professional course program:

Required Courses .....	Semester Hours
EDS 3110* Processes of Education in Multicultural Urban Secondary Schools....	3
EDS 3120* Field Experiences in Multicultural Urban Secondary Schools .....	3
EDS 3200 Educational Psychology Applied to Teaching .....	3
EDS 3210** Secondary School Curriculum and Classroom Management .....	3
EDS 3220** Field Experience in Teaching, Materials Construction, and Classroom Management .....	3
EDT 3610*** Introduction to Educational Technology .....	1-3
RDG 3280 Teaching of Reading and Writing in the Content Area .....	4

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SED 3600 The Exceptional Learner in the Classroom .....	3
(or physical education majors may take HPS 4620, Adaptive Human Performance and Sports Activities)	
Methods of Teaching the Major .....	3
<i>Subtotal</i> .....	26-28

### Teaching Practice

EDS 4290**** Student Teaching and Seminar: Secondary 7-12 .....	12
(available summer term only with special arrangements)	
<i>Total</i> .....	38-40

*\*These two courses must be taken concurrently.*

**\*\***These two courses must be taken concurrently. Math teacher candidates must take MTH 3630 concurrently with EDS 3210 and EDS 3222 during the semester before student teaching.

**\*\*\***Secondary Education and K-12 licensure students taking EDT 3610 must register for 2 or 3 credit hours. One credit hour is offered only for early childhood education licensure students.

**\*\*\*\***Only students who are preparing for K-12 licenses or for two subject areas are allowed to take 6 or 8 credit hours. K-12 licensure students take EDS 4290-8 and EDU 4190-8.

### Recommended Sequence

The following course of study is suggested for those students in secondary education who have a bachelor's or higher degree and who are primarily completing licensure courses at MSCD. Completion of the program takes a minimum of three semesters.

Semester I .....	Semester Hours
EDS 3110 Processes of Education in Multicultural Urban Secondary Schools .....	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools .....	3
EDS 3200 Educational Psychology Applied to Teaching .....	3
Semester I or II (to be taken as offered, or as these courses fit into the student's schedule)	
EDT 3610* Introduction to Educat.....	1-3
RDG 3280 Teaching of Reading and Writing in the Content Area .....	4
SED 3600 The Exceptional Learner in the Classroom .....	3

### Semester II

EDS 3210** Secondary School Curriculum and Classroom Management .....	3
EDS 3220** Field Experience in Teaching, Materials Construction, and Classroom Management.....	3
XXX Methods of Teaching the Major .....	3

*Note: All of the above listed courses are prerequisites for student teaching.*

### Semester III

EDS 4290 Student Teaching and Seminar: Secondary 7-12 .....	12
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*\*Secondary Education and K-12 licensure student taking EDT 3610 must register for 2 or 3 credit hours. One credit hour is offered only for early childhood education licensure students. Three credit hours should be elected by licensure students who wish to pursue advanced content area of grade-level technology skills.*

**\*\***Math teacher candidates must take MTL 3630 and MTL 3638 concurrently with EDS 3210 and EDS 3222 during the semester before student teaching. See the "Professional Education

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Sequence in Secondary Mathematics" under the Department of Mathematical and Computer Science.

## Science and Social Studies Licensure Programs

### Science Licensure Program

The program includes a major in one area of science, a concentration in a second area, and a sampling from additional areas of science and mathematics. The program satisfies both major and minor requirements, so no further minor is required.

### Major

Secondary science licensure students must complete an academic major in one of the following areas:

- Biology
- Earth-Atmospheric Science
- Chemistry
- Physics

Please consult with the Secondary Education Department or your major department for a list of approved and/or required courses and for information about licensure in your major.

### Science Areas of Concentration

In addition to their major, students must complete one of the following teaching concentrations:

Biology .....	Semester Hours
BIO 1080 General Introduction to Biology.....	3
BIO 1090 General Introduction to Biology Laboratory .....	1
BIO 2100 General Botany .....	5
BIO 2200 General Zoology .....	5
BIO 3550 Urban Ecology	
-or-	
BIO 3600 General Genetics .....	4
<i>Subtotal</i> .....	18

### Chemistry Semester Hours

*(Students wanting General Studies credit from CHE 1800 must take companion course CHE 1850.)*

CHE 1800 General Chemistry I .....	4
CHE 1810 General Chemistry II .....	4
CHE 1850 General Chemistry Lab .....	2
CHE 3000 Analytical Chemistry .....	3
CHE 3010 Analytical Chemistry Laboratory .....	2
CHE 3100 Organic Chemistry I .....	4
CHE 3120 Organic Chemistry Laboratory I .....	2
<i>Subtotal</i> .....	21

### Computer Science

CSI 1300* Computer Science 1 .....	4
CSI 2300 Computer Science 2 .....	4
CSI 3300 Foundations of File Structures .....	4



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Plus 9 additional hours of CSI courses .....	9
<i>Subtotal</i> .....	21

*\*Prerequisites for CSI 1300 are CSS 1010 and MTH 1110 or equivalents.*

Earth Science .....	Semester Hours
AST 1040 Introduction to Astronomy .....	3
GEG 1000 World Regional Geography .....	3
GEG 1230 Weather and Climate .....	3
GEG 1240 Landforms .....	3
GEL 1010 General Geology .....	4
GEL 1030 Historical Geology .....	4
<i>Subtotal</i> .....	20

Mathematics .....	Semester Hours
CSI 1300 Computer Science 1 .....	4
MTH 1410 Calculus I .....	4
MTH 2410 Calculus II .....	4
MTH 3100 Introduction to Mathematical Proofs .....	3
MTL 3630 Teaching Secondary Mathematics .....	3

Plus 3 additional hours to be selected from:

MTH 3110 Abstract Algebra .....	3
MTH 3210 Probability and Statistics .....	4
MTH 3600 History of Mathematics .....	3
MTH 3650 Foundations of Geometry .....	3
<i>Subtotal</i> .....	21-22

Physics .....	Semester Hours
PHY 2311 General Physics I .....	4
PHY 2321 General Physics Laboratory I .....	1
PHY 2331 General Physics II .....	4
PHY 2341 General Physics Laboratory II .....	1

Plus 8 Additional Hours in Physics .....	8
<i>Subtotal</i> .....	18

### General Requirements

Choose at least one course from each of the following areas (specific courses are required for some majors). Some of these science and mathematics courses may be fulfilled in the academic major, teaching concentration, General Studies, or elective courses. Physics majors should also take one electronics course.

<b>Biology</b> .....	Semester Hours
BIO 1080 General Introduction to Biology (suggested) .....	3
BIO 1090 General Introduction to Biology Laboratory (suggested) .....	1

### Chemistry\*

CHE 1100 Principles of Chemistry (suggested)	
-or-	
CHE 1800 General Chemistry I (suggested) .....	4-5

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*\*Biology majors consult with the Biology Department for chemistry requirements for bachelor of arts or bachelor of science degree.*

### Computers

A computer course approved by your advisor .....3-4

### Earth Science

AST 1040\* Introduction to Astronomy (suggested)

-or-

GEG 1000 World Regional Geography (suggested)

-or-

GEL 1010 General Geology (suggested) .....3-4

*\*AST 1040 required for physics majors.*

### Environmental Studies

Varies (See an advisor for recommendations for specific courses.) .....3-4

### Physics

PHY 2010 College Physics I

-or-

PHY 2311 General Physics I .....4

PHY 2321 General Physics Laboratory .....5

### Mathematics

Biology majors must take:

MTH 1110 College Algebra .....4

MTH 1120 College Trigonometry .....3

-or-

MTH 1400 Precalculus Mathematics .....4

Chemistry, physics\*, and earth science majors must take:

MTH 1410 Calculus I .....4

*\*Physics majors must also take MTH 2410, MTH 2420, and MTH 3420.*

### Science

Required Course

SCI 3950 Methods of Teaching Science .....3

### Social Studies Licensure Program

The program includes a major in one area of social science, a second concentration, and a sampling from every social/behavioral science. The program meets both major and minor requirements; an additional minor is not required.

### Major

Students must complete an academic major at MSCD in one of the following areas:

- Political Science Economics Geography
- History

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The Licensure Program for Social Studies has changed dramatically. Please check with the Secondary Education Department for updated information and for a list of approved and/or required courses for licensure and with the major department for major requirements.

### Social Studies Concentration

Students must also complete one of the following teaching concentrations. History must be selected unless the academic major is history.

#### African American Studies .....Semester Hours

AAS 1010 Introduction to African American Studies .....	3
AAS 2000 Social Movement and the Black Experience .....	3
6 additional hours in African American Studies, 3 upper-division. (selected in consultation with a faculty advisor; African American History recommended).....	6
<i>Subtotal</i> .....	12

#### Anthropology

ANT 1010 Physical Anthropology and Prehistory .....	3
ANT 1310 Introduction to Cultural Anthropology .....	3
6 additional upper-division hours in anthropology .....	6
<i>Subtotal</i> .....	12

#### Chicano Studies

CHS 1000 Introduction to Chicano Studies .....	3
CHS 1010 History of Meso-America: Pre-Columbian and Colonial Periods .....	3
CHS 1020 History of the Chicano in the Southwest: Mexico and U.S. Periods ..	3
3 additional upper-division hours in Chicano studies .....	3
<i>Subtotal</i> .....	12

#### Economics

ECO 2010 Principles of Economics (Macro) .....	3
ECO 2020 Principles of Economics (Micro) .....	3
12 additional upper-division hours in economics .....	12
<i>Subtotal</i> .....	18

#### Geography

GEG 1230 Weather and Climate .....	3
GEG 1300 Introduction to Human Geography .....	3
GEG 1400 World Resources .....	3
3 additional upper-division hours .....	3
<i>Subtotal</i> .....	12

#### History

HIS 1010 Western Civilization to 1715 .....	3
HIS 1020 Western Civilization since 1715 .....	3
HIS 1210 American History to 1865 .....	3
HIS 1220 American History since 1865 .....	3
Non-Western history .....	3
3 hours of additional upper-division history courses. (selected in consultation with the department) .....	3
<i>Subtotal</i> .....	18

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### Political Science

PSC 1010 American National Government.....	3
PSC 1020 Political Systems and Ideas .....	3
PSC 3000 American State and Local Government .....	3
PSC 3050 Political Theory .....	3
<i>Subtotal</i> .....	12

### Psychology

PSY 1001 Introductory Psychology .....	3
PSY 3260 Psychology of Adolescence .....	3
6 additional hours of electives, 3 upper-division. (selected in consultation with the department; PSY 2210 and 2410 suggested).....	6
<i>Subtotal</i> .....	12

### Sociology

SOC 1010 Introduction to Sociology .....	3
SOC 3600 Research in Social Sciences .....	3
6 additional hours of electives, 3 upper-division. ....	6
<i>Subtotal</i> .....	12

### General Requirements

HIS 4010 Methods of Teaching Social Science: Secondary School .....	3
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Select one course from each of the following areas. A single course may be used for credit in two areas if content is appropriate; e.g., geography and international studies. Some courses may be satisfied in the academic major, concentration, General Studies, or elective coursework.

#### African American Studies\*

Economics  
Political Science  
Anthropology  
Gender Studies  
Psychology  
Chicano Studies  
Geography\*\*  
Sociology  
International Studies

*\*African American History or other course dealing with the African American experience in the United States.*

*\*\*GEG 1000, World Regional Geography, or GEG 1400, World Resources suggested. These credits can be taken as part of General Studies. GEG 1400 will fulfill the international studies requirement*

## Electrical Engineering Technology Program

Electrical Engineering Technology graduates are taught a balance of theory and application, with a goal of placing graduates into the electrical and electronics industry. The sound theoretical grounding has enabled many graduates to obtain advanced degrees. The practical curriculum makes the transition to industrial employment very smooth.

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Graduates are employed in a variety of positions including research and development, design, manufacturing, programming, management, sales, service and support.

The EET curriculum gives a solid theoretical foundation in science, mathematics and electric circuits and devices. The student may specialize in the following areas of emphasis: computers, communications (including satellite, fiber optics, microwave and laser), control systems (including robotics), integrated circuit technology (including analog, fabrication and hardware description language) and power (including solar energy).

### Electrical Engineering Technology Major for Bachelor of Science

The bachelor of science degree is awarded upon completion of the required program. Because this program emphasizes applications of theory, students are required to take concurrent laboratory courses.

This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, Maryland 21202, 410-347-7700.

#### Required Technical Courses .....Semester Hours

EET 1140 Circuits I .....	4
EET 1150 Circuits II .....	4
EET 2140 Electronics I .....	3
EET 2150 Electronics II .....	3
EET 2320 Digital Circuits I .....	3
EET 2340 Technical Programming Applications .....	3
EET 2350 Advanced Technical Programming .....	3
EET 3110 Circuit Analysis with Laplace .....	4
EET 3120 Advanced Analog Electronics .....	4
EET 3330 Digital Circuits II .....	3
EET 3360 Microprocessors .....	3
EET 3620 Analog and Digital Communications .....	3
EET 3710 Control Systems Analysis .....	3
EET 4100 Senior Project I .....	1
EET 4110 Senior Project II .....	2
CET 2150 Mechanics I-Statics .....	3-4
MET 3110 Thermodynamics .....	3
XXX XXX EET Electives .....	6
<i>Subtotal</i> .....	58-59

#### Additional Course Requirements

CHE 1100 Principles of Chemistry I .....	5
COM 2610 Introduction to Technical Writing .....	3
ENG 1010* Freshman Composition: The Essay .....	3
ENG 1020* Freshman Composition: Analysis, Research and Documentation .....	3
MTH 1400 Precalculus Mathematics (MTH 1110 or MTH 1120 may be substituted) .....	4
MTH 1410* Calculus I .....	4
MTH 2410 Calculus II .....	4
PHY 2311* General Physics I .....	4
PHY 2321* General Physics Laboratory I .....	1
PHY 2331* General Physics II .....	4
PHY 2341* General Physics Laboratory II .....	1
SPE 1010* Public Speaking .....	3

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XXX XXX Level II General Studies-Historical .....	3
XXX XXX Level II General Studies-Arts and Letters.....	6
XXX XXX Level II General Studies-Social Science .....	6
<i>Subtotal</i> .....	54

*\*These courses count as General Studies courses. The Multicultural requirement of 3 credits may be satisfied by selecting any Level II course approved for Multicultural credit.*

### **Concentrations** (choose one area only)

#### **Computers**

Required Courses .....	Semester Hour
EET 3350 Embedded Applications Using C++ .....	3
EET 4340 Interface Techniques .....	3
EET 4370 Microcontrollers .....	3
XXX XXX Upper-division EET electives chosen from EET 3690, EET 4320 or EET 4330.....	3

Six additional hours chosen from EET 3690, EET 3730, EET 3740, EET 3800, EET 4020, EET 4320, EET 4330, EET 4630, EET 4730 or CET 3120 .....	6
<i>Subtotal</i> .....	18

#### **Communications**

Required Courses	
EET 3630 Electromagnetic Fields .....	3
EET 4620 Advanced Communications Systems .....	3

Twelve additional hours chosen from EET 3640, EET 3670, EET 3690, EET 3800, EET 4020, EET 4320, EET 4330, EET 4630, EET 4640 or CET 3120.....	12
<i>Subtotal</i> .....	18

#### **Control Systems**

Required Courses	
EET 3730 Process Control Systems .....	2
EET 3740 Programmable Logic Controllers .....	2
EET 4710 Digital Control Systems Design .....	4

Ten additional hours chosen from EET 3350, EET 3420, EET 3720, EET 3800, EET 4320, EET 4330, EET 4340, EET 4370, EET 4730 or CET 3120 .....	10
<i>Subtotal</i> .....	18

#### **Integrated Circuit (IC) Design**

Required Courses	
EET 3020 Digital IC Design .....	3
EET 4020 Verilog Hardware Description Language .....	3
EET 4030 Analog IC Design .....	3
EET 4040 Introduction to IC Fabrication .....	3
Six additional hours chosen from EET 3630, EET 3730, EET 3740, EET 3800, EET 4330, EET 4340, EET 4370, EET 4730 or CET 3120 ..	6
<i>Subtotal</i> .....	18

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### Power

#### Required Courses

EET 3410 Electric Machines .....	3
EET 3420 Electric Power Distribution .....	3
MET 3120 Heat Transfer .....	2

Ten upper division hours chosen from EET 3430, EET 3630, EET 3690, EET 3720, EET 3730, EET 3740, EET 3800, EET 4340, EET 4370, EET 4730 or CET 3120.....10

*Subtotal* .....18

Program Total.....130-131

*\*\*In select cases, a minor in another area may be substituted for a concentration, with prior approval of an EET department advisor.*

### Minor in Electrical Engineering Technology

#### Required Courses .....Semester Hours

EET 2000 Electronic Circuits and Machines .....	3
(The sequence EET 1140 and EET 1150 may be substituted.)	
EET 2320 Digital Circuits I .....	3
(EET 2310 may be substituted for computer science majors.)	
EET 2340 Technical Programming Applications.....	3
(Any one of the following may substitute: CSI 1300, CSS 2227, CMS 2110, MTH 1510, or MET 3210)	
EET 3010 Industrial Electronics .....	4
(The sequence EET 2140 and EET 2150 may be substituted.)	
EET 3330 Digital Circuits II .....	3
EET 3360 Microprocessors .....	3
<i>Total</i> .....	19

## Gerontology Programs

The purposes of the interdisciplinary gerontology programs are to: provide an organized, systematic exploration of aging within society that enables students to develop beginning skills to effectively work directly or indirectly with older populations in a variety of settings; to cultivate a positive attitude toward aging; and to emphasize the dignity and work of each individual. The programs in gerontology are administered by the Department of Health Professions, 303-556-3130, South Classroom 226.

Students have three options of programs in gerontology to select from: a certificate in gerontology; a minor in gerontology; and an independent degree program in gerontology (this option must meet the independent degree program requirements) or a major in sociology with a gerontology concentration. In addition, students interested in gerontology are advised by faculty to take courses related to gerontology that meet their interests.

Students desiring or considering entry to any of the gerontology programs need to seek academic advising from the gerontology advisor in the Department of Health Professions. Students are responsible for keeping themselves informed of the latest program changes. Up-to-date program materials and requirements are available in the Department of Health Professions. Students must pass all courses in the gerontology program of choice with a grade of "C" or better.

Graduates in gerontology are employed in a variety of facilities and organizations: community, human service and religious organizations; exercise, fitness, mental health,

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acute health care and long-term care institutions; federal, state and local government agencies, including the aging network; retirement communities; academic and other educational and research settings; professional organizations; and business and industry.

## Gerontology Minor

### Educational Goals and Outcomes

Upon completion of the gerontology minor, the student will be able to:

#### *Core Exit Behaviors*

- examine sociological, psychological and biological/physiological theories of aging.
- describe the underlying biological/physiological processes associated with aging and the challenges these present.
- describe the effects of ethics, economics and policy decisions have on the biological/physiological, sociological, psychological and cultural aspects of aging and the resulting challenges.
- investigate the changes occurring in society resulting from our aging population.
- apply aging theories, ethics, economics conditions and aging related policy decisions to a practical experience involving the aged or services for the aged.

#### *Orientation Exit Behavior (based on orientation area selected by the student)*

##### Liberal Arts

- examine attitudes toward older culturally diverse people to discover ways that aging is portrayed.

##### Professional Practice

- provide direct services to older culturally diverse people and their families, administer and plan programs and services or work to modify social institutions and policies.

Students must complete all of the following core course requirements and at least nine (9) credit hours from either the liberal arts orientation or the professional services orientation.

Required Core Courses .....	Semester Hours
HES 3810	
-or-	
BIO 3530 Physiology of Aging for Non-Biology Majors .....	3
PSY 3270 Adulthood and Aging .....	3
SOC 1040 Introduction to Social Gerontology .....	3
HES 4520 Internship in Gerontology .....	3-6
<i>Subtotal</i> .....	12-15

The first three (3) required core courses must be taken prior to selecting courses from an area of orientation. HES 4520 (Internship in Gerontology) must be taken the last semester of minor course work. It may be taken with one other approved course from the orientation options. You must contact the gerontology advisor the semester before you plan to register for this course.



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Students must select a minimum of nine (9) credit hours from one of the following orientations. these courses must be approved by the gerontology advisor in the Department of Health Professions.

### Liberal Arts Orientation

LES 2330 Advocacy, Leisure and the Aging Adult .....	3
PSY 2270 Death and Dying .....	3
SOC 3040 Contemporary Issues in Gerontology .....	3
SOC 3100 Death and Dying .....	3
SPE 4760 Communication and the Elderly .....	3

### Professional Services Orientation

HCM 3020 Management Principles in Health Care .....	3
HES 3100 Nutrition and Aging .....	3
HSL 1420 Activity and Fitness Programs for the Elderly .....	2
LES 2330 Advocacy, Leisure and the Aging Adult .....	3
LES 3070 Health and Movement Problems in the Aging Adult .....	3
PSY 2270 Death and Dying .....	3
SWK 3020 Case Management in Social Work Practice .....	4
SWK 3030 Social Work with the Aging .....	4
<i>Total hours for Gerontology Minor .....</i>	<i>21</i>

Students may select a gerontology topics course or an independent study course that deals with aging if it is appropriate for their selected orientation and approved by the gerontology advisor.

### Gerontology Certificate of Completion Program

See the gerontology advisor in the Department of Health Professions for information about the gerontology certificate of completion. (See below.)

### Independent Degree Program in Gerontology

See the gerontology advisor in the Department of Health Professions and a counselor in the Center for Individualized Learning for information on this program.

### Sociology with a Gerontology Concentration Major

See an advisor in the Department of Anthropology, Sociology and Social Work for information on this program.

### Certificate Program Available

#### GERONTOLOGY

##### Required Core

SOC 1040 Introduction to Social Gerontology .....	3
PSY 3270 Adulthood and Aging.....	3
HES 3810 Physiology of Aging for Non-Biology Majors .....	3
HES 4520 Internship in Gerontology .....	3-6

Choose nine credit hours from one of the following orientations

#### Liberal Arts Orientation

PSY 2270 Death and Dying .....	3
SOC 3040 Contemporary Issues in Gerontology .....	3

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SOC 3100 Death and Dying .....	3
SPE 4760 Communication and the Elderly .....	3

### Professional Services Orientation

HCM 3020 Management Principles in Health Care .....	3
HES 3100 Nutrition and Aging .....	3
LES 2330 Advocacy, Leisure, and the Aging Adult .....	3
LES 3070 Health and Movement Problems in the Aging Adult.	3
SWK 3020 Case Management in Social Work Practice .....	4

For prerequisites and more information call the gerontology advisor in the Department of Health Professions-303-556-3130.

## Health Professions Department

The Health Professions Department offers the following programs and courses:

- Gerontology
- Health Care Management
- Health Education Service Courses
- Holistic Health and Wellness
- Nursing
- Nutrition courses

The purposes of the programs in the Health Professions Department are to stimulate the personal and professional development of health care workers, to stimulate awareness of health care trends and issues, and to prepare health care professionals to cope with the future problems of health care delivery in a rapidly changing society.

The Health Professions Department offers two baccalaureate majors: a bachelor of science degree with a major in nursing and a bachelor of science degree with a major in health care management. The department also offers a minor in health care management and coordinates two interdisciplinary minors (Holistic Health and Wellness Education and Gerontology). Health education services courses that include nutrition are offered for non-health majors and health majors.

Students desiring to enter programs in the Health Professions Department should seek academic advising from a faculty member in the department prior to registration for classes. Students are responsible for keeping themselves informed of the latest program changes. Current program materials are available in the Health Professions Department.

## Health Care Management

The college's undergraduate degree program in health care management prepares students for direct entry into management within the health care field. By combining courses in health care management with other disciplines such as marketing, computer information systems, accounting, and economics, the program gives students a strong foundation in management as it specifically relates to health care.

Students must earn a grade of "C" or better in all courses required for the major (HCM, and all required support courses) in order to progress through the program. Courses with grades of less than "C" will need to be repeated in order for the student to take any other courses for which the first course is a prerequisite.

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Health managers are employed in a variety of facilities and organizations: hospitals; nursing homes; health departments; educational institutions; health maintenance organizations; wellness programs; industrial health programs; the insurance industry; and governmental agencies at local, state, and national levels. All general requirements of the college for a bachelor of science degree must be met prior to graduation.

The Health Care Management program is housed in the Health Professions Department. For more information call 303-556-3130 or go to South Classroom 226.

### Educational Goals and Outcomes

The baccalaureate health care management program has established the following outcomes for all graduates. The health care management graduate:

- Effectively manages health delivery systems, maximizing quality and quantity of services and human resources in the face of limited fiscal support.
- Views health delivery as having multiple interdependent components within an environmental context.
- Initiates and effectively manages change in a rapidly evolving health care environment.
- Identifies the effects of law on the role of managers in health delivery systems and the challenge of managing within a legal and ethical framework.
- Uses research and information science methodologies to solve management problems in health delivery systems.
- Applies basic economic and fiscal principles in the management of health delivery systems.
- Accepts accountability for continued learning by acquiring knowledge and skills that meet the changing needs of self, client, management, and society.

### Assessment Methodology

The student's administrative performance will be evaluated during the internship experience (HCM 4510, Health Care Management Internship), based on previously agreed-upon objectives. The program exit evaluation will be a combined effort of the student, a faculty member, and preceptor.

### Health Care Management Major for Bachelor of Science

Required Courses .....	Semester Hours
HCM 3010 Health Care Organization .....	3
HCM 3020 Management Principles in Health Care .....	3
HCM 3030 Health Care Jurisprudence .....	3
HCM 3300 Management Issues and Health Policy .....	3
HCM 4020 Human Resource Management in Health Care .....	3
HCM 4030 Financial Management in Health Care .....	3
HCM 4040 Health Care Economics .....	3
HCM 4500 Health Care Management Pre-Internship.....	2
HCM 4510 Health Care Management Internship .....	6
<i>Total</i> .....	29

#### Required Support Courses

ACC 2010 Principles of Accounting I .....	3
ECO 2020 Principles of Economics-Micro .....	3
MKT 3000 Principles of Marketing .....	3
Approved Statistics Course .....	3
Approved Research Course .....	3

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Approved Computer Course .....	3
<i>Total</i> .....	47

### Minor

The student selects a minor with approval of the faculty. Students who have an associate degree in a health occupation may substitute up to 24 hours of selected, approved associate degree major courses in place of a minor toward the bachelor's degree.

Health care management majors who desire to work in institutions providing care to the elderly are encouraged to take the gerontology minor.

### Minor in Health Care Management

Required Courses .....	Semester Hours
HCM 3010 Health Care Organization .....	3
HCM 3020 Management Principles in Health Care .....	3
HCM 3030 Health Care Jurisprudence .....	3
HCM 4020 Human Resource Management in Health Care .....	3
HCM 4030 Financial Management in Health Care	
-or-	
HCM 4040 Health Care Economics.....	3
<i>Subtotal</i> .....	15

### Required Support Courses

ACC 2010 Principles of Accounting I .....	3
Approved Computer Course .....	3
<i>Total</i> .....	21

### Health Education Services

This group of courses is designed to meet special needs of non-health majors, as well as health majors. Effort is made to provide students with content relevant to individual needs. Students must consult a faculty advisor in the selection of appropriate General Studies courses.

HES 1050 Dynamics of Health (meets social sciences General Studies requirement).....	3
HES 2000 Health Politics and Policy (meets social sciences general studies requirement) .....	3
HES 2040 Introduction to Nutrition (meets natural sciences general studies requirement) .....	3
HES 2150 Alternative Therapies for Health and Healing (meets natural sciences General Studies requirement) .....	3
HES 2180 AIDS: Acquired Immune Deficiency Syndrome (meets social sciences General Studies requirement) .....	3
HES 3070 Parental Health Care Issues .....	3
HES 3080 Maternal and Child Nutrition .....	3
HES 3100 Nutrition and Aging .....	3
HES 3200 Nutrition and Sports Performance .....	3
HES 3450 Dynamics of Disease (meets natural sciences general studies requirement) .....	3
HES 3500 Intermediate Nutrition .....	3
HES 3600 Ethical Decision Making in Health Care .....	3
HES 3800 Clinical Pathophysiology .....	4
HES 3820 Health Care Counseling .....	3

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### Holistic Health and Wellness Education Multi-Minor

The holistic health and wellness education multi-minor offers an area of concentration for students who recognize the increased emphasis on wellness in several professional fields and/or for health conscious individuals who wish to establish a self-enhancement program. The multi-minor is designed to complement a major chosen by a student that is relevant to the student's career goals. For additional information, please contact the Health Professions Department at 303-556-3130, South Classroom 226.

The multi-minor comprises 21 hours of study:

Required Courses .....	Semester Hours
HES 1050 Dynamics of Health .....	3
HES 2040 Introduction to Nutrition .....	3
HES 2750 Introduction to Holistic Health .....	3
HPS 1640 Physical Fitness Techniques and Programs .....	2
HSP 3750 Holistic Health and High-Level Wellness .....	4
PHI 3220 Personal Knowledge and Professional Growth .....	3
Electives* .....	3
<i>Total</i> .....	21

*\*Practical experience is an integral part of this minor and Individualized Degree Program. Students are urged to enhance their education through fieldwork. This can be achieved through practicums, internships, and cooperative education offerings in one of the above listed departments or by using these elective hours.*

## Hospitality, Meeting and Travel Administration Department

### Major for Bachelor of Arts

#### Mission:

The mission of the Hospitality, Meeting and Travel Administration program is to provide excellence in its baccalaureate, professional and technical programs and to render service to the students, citizens and hospitality industry of the State of Colorado. The Hospitality, Meeting and Travel Administration (HMTA) program provides a flexible and individualized interdisciplinary major program with concentrations to include hotel, restaurant, meeting and travel administration.

#### Goals:

The HMTA department emphasizes the development of professional hospitality management knowledge and skills through its goals.

1. Provide students with the opportunity to earn a bachelor of arts degree in a concentration in hotel, restaurant, meeting or travel administration.

Hotel Administration Concentration prepares students for management positions in all segments of the hotel, motel, lodging and resort industries. Students can select course options to develop a specialty area in hotel administration.

Restaurant Administration Concentration prepares students for management positions in commercial and institutional food service areas such as restaurants, clubs, hotels, resorts, schools, colleges, health care, business and industry in plant feeding and catering.

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Meeting Administration Concentration prepares students for management positions in such areas as independent or corporate meeting planners, conference, convention, trade show and association management and conference and convention services in the lodging industry. Meeting students can also select course options to develop an area of specialization.

Travel Administration Concentration prepares students for management positions in areas such as corporate travel management, travel agencies specializing in leisure and corporate travel, tour operations, tour management, the cruise industry, tourist bureaus, incentive travel companies, airport ground passenger services, airline sales and airline in-flight services.

2. Provide instruction and professional assistance to students.
3. Assist students in the development of professionalism and an attitude of continued professional growth and individual development.
4. Assist students to recognize their responsibilities as members of the hospitality industry and society.
5. Prepare students for graduate study in HMTA and related fields.
6. Provide seminars and workshops for the hospitality industry within Colorado and beyond.
7. Conduct applied research in the field of hospitality.
8. Increase the quality and accessibility of hospitality education to the citizens of Colorado and beyond.
9. Provide professional assistance to the hospitality industry and citizens of Colorado.

### **Curriculum:**

The Hospitality, Meeting and Travel Administration bachelor of arts degree requires 120 credit hours.

To be awarded a degree, the student must complete the departmental requirements, General Studies, HMTA core and HMTA concentration requirements. There are four concentrations to choose from: hotel, restaurant, meeting and travel administration. The student must pick at least one concentration from the major and has the option to pursue a double concentration involving two of the concentrations. Students should consult with faculty advisors for selection and approval of a proposed plan of study.

### **Departmental Requirements:**

In addition to meeting the course requirements for General Studies, the HMTA core and the HMTA concentration, all HMTA students must complete the department requirements.

- Maintain a grade point average of 2.25.
- Demonstrate a keyboarding or typing proficiency of 35 wpm.
- Present CPR and first-aid certification.
- Demonstrate a basic competence in a foreign language.\*
- Present verification of 1,200 clock hours of on-the-job experience in the HMTA concentration. These may be secured through paid job experience, cooperative education, internships or a combination of the three. No more than nine semester hours in cooperative education will be accepted and these hours must contain specific descriptions of the job duties performed.
- Travel students must present certification of 40 clock hours of computer reservation training by a qualified reservation trainer or manager, or through an industry-recognized and HMTA faculty member approved, computer-based, self-instruction program.

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Review a CAPP compliance result with an advisor no later than the third semester of enrollment (second semester for transfer students) in the HMTA program.

*\*Competence to be certified by the Modern Language Department as having the equivalence of 5-6 credits of an other approved language and earning a grade of "C" or better.*

### General Studies Course Requirements

#### Level I - Skills .....Semester Hours

##### **Freshman Composition** (minimum 6 semester hours)

ENG 1010 Freshman Composition: The Essay .....3

ENG 1020 Freshman Composition: Analysis, Research and Documentation ..3

##### **Mathematics** (minimum 3 semester hours)

MTH 1210\* Introduction to Statistics .....4

##### **Communications** (minimum 3 semester hours)

SPE 1010 Public Speaking .....3

#### Level II - Content Areas

##### **Historical** (minimum 3 semester hours)

XXX select any course from Level II History approved list .....3

##### **Arts and Letters** (minimum 6 semester hours)

choose at least one of the following courses:

PHI 3360\* Business Ethics

RDG 3060\* Critical Reading/Thinking

SPE 3740\* Psychology of Communication .....3

XXX select one other course from Level II Arts and

Letters approved list .....3

##### **Social Sciences** (minimum 6 semester hours)

ECO 2010\* Principles of Economics-Macro .....3

PSY 1001\* Introductory Psychology.....3

##### **Natural Sciences** (minimum 6 semester hours)

XXX select any courses from Level II Natural Science approved list ...6

(Restaurant concentration students are recommended to take

HES 2040-Introduction to Nutrition)

*General Studies total credit hours .....34*

### Multicultural Graduation Requirement

HMT 1850 Multicultural/Multinational cultural Adjustment/Readjustment.3

(any MSCD approved multicultural course will satisfy this requirement)

### Senior Experience Graduation Requirement

HMT 4040\* Senior Hospitality Research Experience I .....2

HMT 4400\* Senior Hospitality Research Experience II .....2

*Total .....4*

*\*Course has prerequisites; check current MSCD College Catalog for requirements.*

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### Major Core Requirements

HMT 1030 Principles of Travel Administration .....	2
HMT 1040 Principles of Meeting Administration .....	2
HMT 1050 Principles of Hotel Administration .....	2
HMT 1060 Principles of Restaurant Administration .....	2
CMS/CSS 1010 Introduction to Computers* .....	3
ACC 1010 Accounting for Non-Business Majors**	
-or-	
ACC 2010 Principles of Accounting I** .....	3
HMT 3580 Hospitality Tourism Law** .....	3
MGT 3000 Organizational Management** .....	3
HMT 3570 Hospitality Marketing** .....	3
HMT 4650 Hospitality Employee Resource Development** .....	3
HMT 4640 Hospitality Customer Service .....	3
Total .....	29

*\*Or equivalent approved by HMTA faculty advisor.*

*\*\*Course has prerequisite; please check the current MSCD College Catalog for requirements.*

### Recommended Major Electives

HMT 2000 Internship I .....	3
HMT 4000 Internship II .....	3
HMT 4010 Internship III .....	1

*\*In addition, students may select credit hours from the four concentrations or any other course offered through MSCD to fulfill graduation requirements. Consult with an HMTA faculty advisor.*

### Hotel Administration Concentration

#### Required Courses

HMT 2500 Applied Hotel/Restaurant Operations .....	2
HMT 2560 Hotel Financial Accounting .....	3
HMT 3510* Hotel Front Office Administration and Operations* .....	3
HMT 3520* Hotel Housekeeping Administration and Operations* .....	3
HMT 3600* Food and Beverage Cost Controls* .....	3
HMT 3650* Hospitality Property Management* .....	3
HMT 3660* The Restaurant from Concept to Operation* .....	3
HMT 4660* Training and Development in Hospitality* .....	3
Subtotal .....	23

In addition to the hotel required courses, students must choose a minimum of 3 credit hours from the following list:

HMT 1610 Kitchen Procedures and Production I .....	4
HMT 1620* Kitchen Procedures and Production II* .....	4
HMT 3610* Enology: The Study of Wine* .....	3
HMT 3670* Food Service Purchasing* .....	3
HMT 3750 Hospitality Promotional Materials: Analysis and Design .....	3
HMT 4500* Hospitality Sales* .....	3
HMT 4590* Seminar in Hotel Administration .....	2
HMT 4730 Principles of Negotiation .....	3
HMT 4790* Seminar in Meeting: Variable Topics* .....	2
Subtotal .....	3
Total .....	26



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*\*Course has prerequisite; please check the current MSCD College Catalog for requirements.*

To meet the 120 credit hour requirement to graduate, students studying the hotel administration concentration need to complete 24 credit hours of choice. See the list of recommended major elective courses or a faculty advisor.

### Restaurant Administration Concentration

Required Courses	Semester Hours
HMT 1600 Food Service Sanitation and Safety	2
HMT 1610 Kitchen Procedures and Production I	4
HMT 1620* Kitchen Procedures and Production II	4
HMT 2650 Restaurant Financial Accounting	3
HMT 3600* Food and Beverage Cost Controls*	3
HMT 3610* Enology: The Study of Wine*	3
HMT 3650* Hospitality Property Management*	3
HMT 3660* The Restaurant from Concept to Operation*	3
HMT 3670* Food Service Purchasing*	3
HMT 4660* Training and Development in Hospitality*	3
<b>Total</b>	<b>31</b>

*\*Course has prerequisite; please check the current MSCD College Catalog for requirements.*

To meet the 120 credit hour requirement to graduate, students studying the restaurant administration concentration need to complete 19 credit hours of choice. See the list of recommended major elective courses or a faculty advisor.

### Meeting Administration Concentration

Meeting administration concentration students have the option to substitute MKT 3000 for HMT 3750.

Required Courses	
JRN 1100* Beginning Reporting and News Writing*	3
HMT 2760 Meeting Administration I	3
HMT 3750* Hospitality Promotion Materials: Analysis and Design*	3
HMT 3760* Meeting Administration II	3
HMT 4500* Hospitality Sales*	3
HMT 4730* Principles of Negotiation*	3
HMT 4790* Seminar in Meeting: Variable Topics*	3
HMT 4810* Tour Management*	4
MGT 3020* Fundamentals of Entrepreneurship	3
<b>Subtotal</b>	<b>28</b>

*\*Course has prerequisite; please check the current MSCD College Catalog for requirements.*

Category I (Students must select 6 hours)

ECO 2020* Principles of Economics-Micro*	3
ECO 3150* Econometrics*	3
MKT 3110* Advertising Management*	3
MKT 3710* International Marketing*	3
<b>Subtotal</b>	<b>6</b>

Category II (Select 6 hours)

HMT 1810 Basic Ticketing and Reservation Procedures	4
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HMT 2500 Applied Hotel/Restaurant Operations .....	2
HMT 2860 Tourism .....	2
HMT 3510* Hotel Front Office Administration and Operations* .....	3
HMT 3520* Hotel Housekeeping Administration and Operations* .....	3
HMT 3660* The Restaurant from Concept to Operation* .....	3
HMT 3670* Food Service Purchasing* .....	3
<i>Subtotal</i> .....	6

<i>Total of Categories I and II</i> .....	12
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*\*Course has prerequisite; please check the current MSCD College Catalog for requirements.*

To meet the 120 credit hour requirement to graduate, students studying the meeting administration concentration need to complete 10 credit hours of choice. See the list of recommended major elective courses or a faculty advisor.

### Travel Administration Concentration

Required Courses .....	Semester Hours
HMT 1810 Basic Ticketing and Reservations Procedures.....	4
HMT 1820* Travel References and Case Studies* .....	2
HMT 1830 Cruise Development, Marketing and Sales .....	4
HMT 2840 Tour Operations .....	4
HMT 2860 Tourism .....	2
HMT 3850* Financial Management in the Travel Industry* .....	4
HMT 3860 Incentive Travel .....	2
HMT 3890 Cases in Corporate Travel Management .....	2
HMT 4810 Tour Management .....	4
HMT 4830 Corporate Travel Management .....	2
HMT 4840 Travel Industry Management .....	4
HMT 4890* Seminar in Foreign Independent Tours: Variable Topics.....	2
<i>Subtotal</i> .....	36

Select two hours of credit in the travel specialization category below:

#### Air Travel Specialization

HMT 3830 In-flight Services .....	2
HMT 3840 Airport Services .....	2
<i>Subtotal</i> .....	2
<i>Total</i> .....	38

*\*Course has prerequisite; please check the current MSCD College Catalog for requirements.*

To meet the 120 credit hour requirement to graduate, students studying the travel administration concentration need to complete 12 credit hours of choice. See the list of recommended major elective courses or a faculty advisor.

### Minors

The department offers four minor degree programs: hotel, restaurant, meeting and travel administration. These minor degree programs are open to all students at MSCD and are designed primarily for students seeking majors in other areas. The programs provide specialized knowledge specific to the area with emphasis on the application of business principles.

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### Department Requirements for Minor Degree Programs:

- 300 clock hours of on-the-job experience
- Travel students-verification of 40 clock hours of computer reservation training by a qualified reservation trainer or manager, or through an industry-recognized and HMTA faculty member approved, computer-based, self-instruction program.

#### Hotel Administration Minor

Required Courses	Semester Hours
HMT 1050 Principles of Hotel Administration	2
HMT 2500 Applied Hotel/Restaurant Operations	2
HMT 3510 Hotel Front Office Administration and Operations	3
HMT 3520 Hotel Housekeeping Administration and Operations	3
HMT 3580 Hospitality Tourism Law	3
HMT 3660 The Restaurant from Concept to Operation	3
HMT 4650 Hospitality Employee Resource Development	3
HMT 4660 Training and Development in Hospitality	3
<i>Total</i>	22

#### Restaurant Administration Minor

Required Courses	
HMT 1060 Principles of Restaurant Administration	2
HMT 1610 Kitchen Procedures and Production I	4
HMT 1620 Kitchen Procedures and Production II	4
HMT 3580 Hospitality Tourism Law	3
HMT 3600 Food and Beverage Cost Controls	3
HMT 3660 The Restaurant from Concept to Operation	3
HMT 3670 Food Service Purchasing	3
HMT 4650 Hospitality Employee Resource Development	3
<i>Total</i>	25

#### Meeting Administration Minor

Required Courses	
HMT 1040 Principles of Meeting Administration	2
HMT 1810 Basic Ticketing and Reservations Procedures	4
HMT 2760 Meeting Administration I	3
HMT 3580 Hospitality Tourism Law	3
HMT 3750 Hospitality Promotion Materials: Analysis and Design	3
HMT 3760 Meeting Administration II	3
HMT 4640 Hospitality Customer Service	3
HMT 4730 Principles of Negotiation	3
HMT 4790 Seminar in Meeting: Variable Topics	2
<i>Total</i>	24

#### Travel Administration Minor

Required Courses	
HMT 1030 Principles of Travel Administration	2
HMT 1810 Basic Ticketing and Reservations Procedures	4
HMT 1820 Travel References and Case Studies	2
HMT 1830 Cruise Development, Marketing and Sales	4
HMT 2840 Tour Operations	4
HMT 3850 Financial Management in the Travel Industry	4
HMT 4810 Tour Management	4
HMT 4830 Corporate Travel Management	2

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HMT 4890 Seminar in Foreign Independent Tours: Variable Topics .....2

*Total* .....28

## Human Performance, Sport and Leisure Studies Department

The Human Performance, Sport and Leisure Studies Department offers coursework leading to a bachelor of arts degree. Students preparing for work in industry or graduate study can choose from the concentrations of adult fitness and exercise science, athletic training, sport and allied fields, sport industry operations, or one of the major concentrations in leisure studies: recreation and parks administration or therapeutic recreation. Those students preparing to teach at the elementary, secondary, or K-12 levels can choose either the elementary, secondary, K-12, or secondary physical education/coaching concentration.

Students seeking teaching credentials in physical education must satisfy the teacher licensure program at MSCD in addition to all the requirements of the Human Performance, Sport and Leisure Studies Department. Requirements for formal admission to the teacher licensure programs, as listed under the teacher education programs section of this *Catalog*, must also be met. Students should contact the Early Childhood and Elementary Education Department or the Secondary Education Department for information regarding teacher licensure programs.

Additional requirement: A grade of "C" or better is required for all HPSL courses taken in any major/minor concentrations.

**For Leisure Studies, please see [page 213](#) of this *Catalog*.**

## Human Performance and Sport Major for Bachelor of Arts

### Elementary Physical Education Concentration

<b>Professional Activity Courses</b> (required)	Semester Hours
HSL 1010 Skills and Methods of Teaching Tumbling and Fundamentals of Movement.....	2
HSL 1030 Skills and Methods of Teaching Physical Activities for Special Populations...	2
HSL 1040 Skills and Methods of Teaching Activities for the Young Child .....	2
HSL 1050 Skills and Methods of Teaching Rhythms for the Young Child .....	2

#### **Team Sports** (six credits required)

HSL 1100 Skills and Methods of Teaching Team Handball and Lacrosse .....	2
HSL 1110 Skills and Methods of Teaching Soccer and Volleyball .....	2
HSL 1120 Skills and Methods of Teaching Basketball and Softball.....	2
HSL 1130 Skills and Methods of Teaching Flag Football and Field Hockey .....	2

#### **Individual Sports** (four credits required)

HSL 1210 Skills and Methods of Teaching Archery and Track and Field .....	2
HSL 1230 Skills and Methods of Teaching Tennis and Pickleball .....	2
HSL 1240 Skills and Methods of Teaching Wrestling and Personal Defense .....	2

#### **Dance and Adventure** (six credits required)

HSL 1300 Skills and Methods of Teaching Country Western and Folk Dance .....	2
HSL 1310 Skills and Methods of Teaching Modern and Jazz Dance .....	2
HSL 1400 Skills and Methods of Teaching Camping, Backpacking and Orienteering .....	2

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HSL 1410 Skills and Methods of Teaching Teambuilding, Initiative and Ropes Course Activities .....	2
<i>Subtotal</i> .....	24

### Theory Classes (required)

HPS 1600 Introduction to Human Performance and Sport .....	2
HPS 1640 Physical Fitness Techniques and Programs .....	2
HPS 2130 Activities and Health for the Elementary Child .....	3
HPS 3300 Anatomical Kinesiology .....	3
HPS 3340 Physiology of Exercise .....	3
HPS 3460 Measurement and Evaluation in Human Performance and Sport .....	3
HPS 3500* Methods of Teaching Elementary Physical Education .....	3
HPS 3510* Laboratory Experience in Elementary Physical Education .....	2
HPS 4500 Motor Learning and Development .....	3
HPS 4600 Organization, Administration & Curriculum of Human Performance and Sport.....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
<i>Subtotal</i> .....	30
<i>Total Minimum Hours for Major</i> .....	54
Approved electives to bring major to a total of 60 hours and not require a minor .....	6
<b>Total Hours</b> .....	60

*\*These courses must be taken concurrently.*

*Note: A current Advanced First Aid and CPR card is required. Students may take HPS 2060 or complete an Advanced First Aid and CPR course from the American Red Cross. Students who take HPS 2060 may list this course in the "elective" category.*

*Students must take HES 1050 (Dynamics of Health). The course will count toward Level II General Studies, Social Sciences.*

*Physical Education Teacher Licensure required course: HPS 4620 (Adaptive Human Performance and Sports Activities). This course is required only for students seeking physical education licensure - NOT for other HPS majors.*

*No minor is required for this concentration.*

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

## Secondary Physical Education Concentration

### Professional Activities (required)

HSL 1010 Skills and Methods of Teaching Tumbling and Fundamentals of Movement .....	2
HSL 1020 Skills and Methods of Teaching Weight Training and Exercise Aerobics .....	2
HSL 1030 Skills and Methods of Teaching Physical Activities for Special Populations ..	2

### Team Sports (6 credits required)

HSL 1100 Skills and Methods of Teaching Team Handball and Lacrosse .....	2
HSL 1110 Skills and Methods of Teaching Soccer and Volleyball .....	2
HSL 1120 Skills and Methods of Teaching Basketball and Softball .....	2
HSL 1130 Skills and Methods of Teaching Flag Football and Field Hockey .....	2

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### Individual Sports (6 credits required)

HSL 1200 Skills of Swimming, Water Safety and Water Exercise .....	2
HSL 1210 Skills and Methods of Teaching Archery and Track and Field .....	2
HSL 1220 Skills and Methods of Teaching Badminton and Golf .....	2
HSL 1230 Skills and Methods of Teaching Tennis and Pickleball .....	2
HSL 1240 Skills and Methods of Teaching Wrestling and Personal Defense .....	2

### Dance (2 credits required)

HSL 1300 Skills and Methods of Teaching Country Western and Folk Dance .....	2
HSL 1310 Skills and Methods of Teaching Modern and Jazz Dance .....	2
HSL 1320 Skills and Methods of Teaching Gymnastics .....	2

### Adventure (2 credits required)

HSL 1400 Skills and Methods of Teaching Camping, Backpacking & Orienteering .....	2
HSL 1410 Skills and Methods of Teaching Teambuilding, Initiative and Ropes Course Activities .....	2
Subtotal .....	22

### Theory Courses (required)

HPS 1600 Introduction to Human Performance and Sport .....	2
HPS 1640 Physical Fitness Techniques and Program .....	2
HPS 3000 Health Programs in Human Performance and Sport .....	3
HPS 3300 Anatomical Kinesiology .....	3
HPS 3320 Biomechanics .....	3
HPS 3340 Physiology of Exercise .....	3
HPS 3400* Methods of Teaching Secondary Physical Education .....	3
HPS 3410* Laboratory Experience in Secondary Physical Education .....	2
HPS 3460 Measurement and Evaluation in Human Performance and Sport .....	3
HPS 4500 Motor Learning and Development .....	3
HPS 4600 Organization, Administration & Curriculum of Human Performance and Sport ...	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
Subtotal .....	33
Total Minimum Hours for Secondary Physical Education Concentration .....	55
Approved electives to bring major to a total of 60 hours and not require a minor ....	5
Total Hours .....	60

*\*These courses must be taken concurrently.*

*Note: "Emergency Response" and "CPR for the Professional Rescuer" cards are required. Students may take HPS 2060 or complete certification in "Emergency Response" and "CPR for the Professional Rescuer" through the American Red Cross. Students who take HPS 2060 may list this course in the "elective" category.*

*Students must take HES 1050 (Dynamics of Health). The course will count toward Level II General Studies, Social Sciences.*

*Physical Education Teacher Licensure required course: HPS 4620 (Adaptive Human Performance and Sports Activities). This course is required only for students seeking physical education licensure - NOT for other HPS majors.*

*No minor is required for this concentration.*

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Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

## K-12 Physical Education Concentration

### Professional Activity Courses (required)

HSL 1010 Skills and Methods of Teaching Tumbling and Fundamentals of Movement .....	2
HSL 1020 Skills and Methods of Teaching Weight Training and Exercise Aerobics .....	2
HSL 1030 Skills and Methods of Teaching Physical Activities for Special Populations ..	2
HSL 1040 Skills and Methods of Teaching Activities for the Young Child .....	2
HSL 1050 Skills and Methods of Teaching Rhythms for the Young Child .....	2

### Team Sports (6 credits required)

HSL 1100 Skills and Methods of Teaching Team Handball and Lacrosse .....	2
HSL 1110 Skills and Methods of Teaching Soccer and Volleyball .....	2
HSL 1120 Skills and Methods of Teaching Basketball and Softball .....	2
HSL 1130 Skills and Methods of Teaching Flag Football and Field Hockey .....	2

### Individual Sports (6 credits required)

HSL 1200 Skills of Swimming, Water Safety and Water Exercise .....	2
HSL 1210 Skills and Methods of Teaching Archery and Track and Field .....	2
HSL 1220 Skills and Methods of Teaching Badminton and Golf .....	2
HSL 1230 Skills and Methods of Teaching Tennis and Pickleball .....	2
HSL 1240 Skills and Methods of Teaching Wrestling and Personal Defense .....	2

### Dance (2 credits required)

HSL 1300 Skills and Methods of Teaching Country Western and Folk Dance .....	2
HSL 1310 Skills and Methods of Teaching Modern and Jazz Dance .....	2
HSL 1320 Skills and Methods of Teaching Gymnastics .....	2

### Adventure (2 credits required)

HSL 1400 Skills and Methods of Teaching Camping, Backpacking & Orienteering .....	2
HSL 1410 Skills and Methods of Teaching Teambuilding, Initiative and Ropes Course Activities.....	2
<i>Subtotal</i> .....	26

### Theory Classes

HPS 1600 Introduction to Human Performance and Sport .....	2
HPS 1640 Physical Fitness Techniques and Programs .....	2
HPS 3000 Health Programs in Human Performance and Sport .....	3
HPS 3300 Anatomical Kinesiology .....	3
HPS 3320 Biomechanics .....	3
HPS 3340 Physiology of Exercise .....	3
HPS 3400* Methods of Teaching Secondary Physical Education .....	3
HPS 3410* Laboratory Experience in Secondary Physical Education .....	2
HPS 3460 Measurement and Evaluation in Human Performance and Sport .....	3
HPS 3500** Methods of Teaching Elementary Physical Education .....	3
HPS 3510** Laboratory Experience in Elementary Physical Education .....	2
HPS 4500 Motor Learning and Development .....	3
HPS 4600 Organization, Administration & Curriculum of Human Performance and Sport.....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
<i>Subtotal</i> .....	38

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Total Minimum Hours for K-12 Physical Education Major 64

\*These courses must be taken concurrently.

\*\*These courses must be taken concurrently.

*Note: "Emergency Response" and "CPR for the Professional Rescuer" cards are required. Students may take HPS 2060 or complete certification in "Emergency Response" and "CPR for the Professional Rescuer" through the American Red Cross. Students who take HPS 2060 may list this course in the "elective" category.*

*Students must take HES 1050 (Dynamics of Health). The course will count toward Level II General Studies, Social Sciences.*

*Physical Education Teacher Licensure required course: HPS 4620 (Adaptive Human Performance and Sports Activities). This course is required only for students seeking physical education licensure - NOT for other HPS majors.*

*Completion of this program eliminates the requirement of a minor.*

*No minor is required for this concentration.*

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Secondary Physical Education/Coaching Concentration

Required Courses .....Semester Hours

Complete the required credit hours in the secondary physical education concentration .55

Plus the following courses:

HES 2040 Introduction to Nutrition .....	3
HPS 2720 Fundamentals of Coaching .....	2
HPS 2780 Care and Prevention of Athletic Injuries .....	3
HPS 3700 Psychology of Coaching .....	2
HPS 3720 Science and Art of Coaching and Athletic Administration .....	3
HPS 3990 Field Experience in Human Performance and Sport (Coaching).....	3
<i>Subtotal</i> .....	16

*Total Minimum Hours for Secondary Physical Education/Coaching Concentration .....71*

*Note: "Emergency Response" and "CPR for the Professional Rescuer" cards are required. Students may take HPS 2060 or complete certification in "Emergency Response" and "CPR for the Professional Rescuer" through the American Red Cross. Students who take HPS 2060 may list this course in the "elective" category.*

*Physical Education Teacher Licensure required course: HPS 4620 (Adaptive Human Performance and Sports Activities). This course is required only for students seeking physical education licensure - NOT for other HPS majors.*

*No minor is required with this concentration.*



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Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Sport and Allied Fields Concentration

Required Courses	Semester Hours
HPS 1600 Introduction to Human Performance and Sport	2
HPS 2060 Emergency Rescue/First Responder and CPR (or valid American Red Cross Card)	3
HPS 3300 Anatomical Kinesiology	3
HPS 3320 Biomechanics	3
HPS 3340 Physiology of Exercise	3
HPS 3620 Trends and Issues in Human Performance and Sports	2
HSL Skills and Methods Courses	12
LES 4730 Sociology of Athletics in American Society	3
Approved Electives*	13
<b>Total</b>	<b>44</b>

*\*To be selected in accordance with student's intended career objectives. Must be preplanned with an advisor in the Human Performance, Sport and Leisure Studies Department and approved by the department chair.*

*A minor is required for this concentration.*

### Athletic Training Concentration

This concentration is designed for those primarily interested in athletic training at the high school, college, or professional level and is complementary to allied fields (e.g., biology).

Required Courses	Semester Hours
BIO 2310 Human Anatomy and Physiology I	4
BIO 2320 Human Anatomy and Physiology II	4
HES 2040 Introduction to Nutrition	3
HPS 1640 Physical Fitness Techniques and Programs	2
HPS 2060 Emergency Rescue/First Responder and CPR	3
HPS 2780 Care and Prevention of Athletic Injuries	3
HPS 3000 Health Programs in Human Performance and Sport	3
HPS 3300 Anatomical Kinesiology	3
HPS 3320 Biomechanics	3
HPS 3340 Physiology of Exercise	3
HPS 3820 Mechanisms of Athletic Injury	3
HPS 3840 Evaluation Procedures in Athletic Training	3
HPS 3860 Therapeutic Modalities in Sports Medicine	3
HPS 3990 Field Experience in Human Performance and Sport	1
HPS 3990 Field Experience in Human Performance and Sport	2
HPS 4600 Organization, Administration & Curriculum of Human Performance and Sport	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators	3
HPS 4760 Therapeutic Rehabilitation in Sports Medicine	3
HPS 4870 Internship for Athletic Training	10
PSY 2160 Personality and Adjustment	3
<b>Total</b>	<b>65</b>

Completion of this program eliminates the need for a minor.

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To be accepted into the program, students must:

- have a declared major in human performance and sports with an athletic training concentration.
- have completed a minimum of 15 semester hours at MSCD.
- have completed these prerequisite courses:
  - HPS 2060-Emergency Rescue/First Responder and CPR or equivalent.
  - BIO 2310/2320-Human Anatomy and Physiology I and II or acceptable transfer course.
- maintain a GPA of 2.75.

To qualify for the NATA certification examination, students must complete the bachelor's degree with required coursework and 1,500 volunteer hours of work with a certified athletic trainer. The NATA certification is not required for graduation.

### Adult Fitness and Exercise Science Concentration

Adult fitness and exercise science is a concentration program for those seeking an entrance into the adult fitness profession or those who have aspirations in the exercise science field through advanced degree work in exercise physiology. For those interested and capable of pursuing an advanced graduate degree with adult fitness and exercise science as a foundation, there are careers in research, college teaching and private corporate fitness program development.

<b>Professional Activity Courses</b>	Semester Hours
HSL 1020 Skills and Methods of Teaching Weight Training and Exercise Aerobics	2
HSL 1440 Stress Management	2
<i>Subtotal</i>	<i>4</i>

### Basic Theory Courses

HES 2040 Introduction to Nutrition	3
HPS 1640 Physical Fitness Techniques and Programs	2
HPS 2780 Care and Prevention of Athletic Injuries	3
HPS 3300 Anatomical Kinesiology	3
HPS 3340 Physiology of Exercise	3
HPS 3780 Fitness Programs for Special Populations	2
HPS 4200 Community Fitness Testing and Program Planning	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators	3
HPS 4680 Advanced Exercise Assessment Techniques	3
HPS 4840 Comparative Fitness Programs	2
HPS 4880 Internship for Adult Fitness	10
LES 3070 Health and Movement Problems in the Aging Adult	3
PSY 2410 Social Psychology	3
<i>Subtotal</i>	<i>43</i>
<i>Total</i>	<i>47</i>

*Note: Students must have a 2.75 GPA to be eligible for an internship.*

*It is recommended that students take HPS 2060, Emergency Rescuer/First Responder and CPR, or verify equivalent certification.*

### Sport Industry Operations Concentration

This concentration is intended to be of interest to students and practicing professionals who want to explore the business side of sport industry operations.

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Required Courses .....	Semester Hours
HPS 1600 Introduction to Human Performance and Sport .....	2
HPS 2070 Sport Venue Operations .....	3
HPS 3080 Sport Industry .....	3
HPS 4600 Organization, Administration & Curriculum of Human Performance and Sport .....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
*HPS 4890 Internship for Human Performance .....	10
LES 2150 Maintenance of Leisure Service Facilities and Recreation Equipment .....	3
LES 4730 Sociology of Athletics in American Society .....	3
MGT 3000 Organizational Management .....	3
MKT 3500 Sports Marketing .....	3
<i>Subtotal</i> .....	36
Approved Electives .....	4
Total hours .....	40

*\*May take 10 hours of advisor-approved upper division course work in place of internship.*

*Note: Students majoring in Sport Industry Operations are required to select a minor from the School of Business.*

## Human Performance and Sport Minor

The human performance and sport minor concentrations are for non-majors in human performance and sport. Programs are open to all other disciplines of study within the college. The primary objective is to provide instructional studies in a liberal arts institution in human performance and sport, thereby enhancing one's knowledge, understanding, and skillful use of this area of study to pursue a better quality of life.

Minor programs will not meet requirements for teacher licensure with the Colorado Department of Education.

Additional requirement: A grade of "C" or better is required for all human performance and sport courses taken in any major/minor concentration.

## Elementary Physical Education Concentration

Required Courses .....	Semester Hours
HPS 1640 Physical Fitness Techniques and Programs .....	2
HPS 2130 Activities and Health for the Elementary Child .....	3
HPS 3500* Methods of Teaching Elementary Physical Education .....	3
HPS 3510* Laboratory Experience in Elementary Physical Education .....	2
HPS 4500 Motor Learning and Development .....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
HSL 1010 Skills and Methods of Teaching Tumbling and Fundamentals of Movement .....	2
HSL 1030 Skills and Methods of Teaching Physical Activities for Special Populations .....	2
HSL 1040 Skills and Methods of Teaching Activities for the Young Child .....	2
HSL 1050 Skills and Methods of Teaching Rhythms for the Young Child ...	2
<i>Total</i> .....	24

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*\*HPS 3500 and 3510 must be taken concurrently.*

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Secondary Physical Education Concentration

HPS 1640 Physical Fitness Techniques and Programs .....	2
HPS 3400* Methods of Teaching Secondary Physical Education .....	3
HPS 3410* Laboratory Experience in Secondary Physical Education .....	3
HPS 3460 Measurement and Evaluation in Human Performance and Sport .....	3
HPS 4500 Motor Learning and Development .....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
HSL Skills and Methods Courses .....	8
<i>Total</i> .....	24

*\*HPS 3400 and 3410 must be taken concurrently.*

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

### Sport and Allied Fields Concentration

HPS 1600 Introduction to Human Performance and Sport .....	2
HPS 2060 Emergency Rescue/First Responder and CPR and/or valid Advanced American Red Cross Card and 3 hours of HPSL Department electives .....	3
HPS 3620 Trends and Issues in Human Performance and Sports .....	2
HSL Skills and Methods Courses .....	6
LES 4730 Sociology of Athletics in American Society .....	3
Approved Electives: Selected in accordance with student's intended career objectives. Must be preplanned with an advisor in the Human Performance, Sport and Leisure Department .....	7
<i>Total</i> .....	23

### Coaching Concentration

HPS 1640 Physical Fitness Techniques and Programs .....	2
HPS 2720 Fundamentals of Coaching .....	2
HPS 2780 Care and Prevention of Athletic Injuries .....	3
HPS 3700 Psychology of Coaching .....	2
HPS 3720 Science and Art of Coaching and Athletic Administration .....	3
HPS 3990 Field Experience in Human Performance and Sport (Coaching) .....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators ..	3
HSL 1020 Skills and Methods of Teaching Weight Training and Exercise Aerobics.	2
LES 4730 Sociology of Athletics in American Society .....	3
<i>Total</i> .....	23

### Dance Concentration

HPS 2440 Dance Production .....	3
HPS 3300 Anatomical Kinesiology .....	3
HPS 4500 Motor Learning and Development .....	3
HSL 1010 Skills and Methods of Teaching Tumbling and Fundamentals of Movement..	2

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HSL 1310 Skills and Methods of Teaching Modern and Jazz Dance .....	2
HSL 1330 Skills and Methods of Teaching Improvisation and Choreography .....	2

Select two of the following electives:

HPS 2780 Care and Prevention of Athletic Injuries .....	3
HSL 1050 Skills and Methods of Teaching Rhythms for the Young Child .....	2
HSL 1340 Skills and Methods of Teaching Rhythms for Special Populations .....	2
<i>Total</i> .....	19-21

## Adult Fitness and Exercise Science Concentration

HES 2040 Introduction to Nutrition .....	3
HPS 3780 Fitness Programs for Special Populations .....	2
HPS 3990 Field Experience in Human Performance and Sport .....	1-3
HPS 4680 Advanced Exercise Assessment Techniques .....	3
HPS 4840 Comparative Fitness Programs .....	2
LES 3070 Health and Movement Problems in the Aging Adult .....	3
PSY 2410 Social Psychology .....	3
HPS Electives (selection based on exercise science needs) .....	3
<i>Total</i> .....	20-22

## Health and Safety Minor

The concentration in health education is intended to prepare students to teach health education at either the secondary, elementary, or K-12 level. This is an excellent concentration for students who are obtaining a teaching license in another area or for nurses who are interested in the area of school health nurse.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

## Health Education Concentration

CJC 3510 Drug Abuse: Legal Issues and Treatment .....	3
HES 2040 Introduction to Nutrition .....	3
HPS 2020 Community Health .....	3
HPS 2060 Emergency Rescue/First Responder and CPR .....	3
HPS 3000 Health Programs in Human Performance and Sport .....	3
HPS 3910 Safety Education .....	3
PSY 3250 Child Psychology	
-or-	
PSY 3260 Psychology of Adolescence .....	3
<i>Total</i> .....	21

## Certificate Programs Available

### COACHING

HPS 2060 Emergency Rescue/First Responder & CPR .....	3
HPS 2720 Fundamentals of Coaching .....	2
HPS 2780 Care and Prevention of Athletic Injuries .....	3
HPS 3700 Psychology of Coaching .....	2
HPS 3720 Science and Art of Coaching and Athletic Administration ...	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3

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For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

### ACTIVITIES ASSISTANT FOR OLDER ADULTS

HPS 2060 Emergency Rescue/First Responder & CPR .....	3
LES 2110 Leadership Skills and Techniques in Leisure Services .....	3
LES 2330 Advocacy, Leisure and the Aging Adult .....	3
LES 3070 Health and Movement Problems for the Aging Adult .....	3
LES 4630 Leisure Service Programs for the Older Adult .....	3

For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

### RECREATION ASSISTANT

HPS 2060 Emergency Rescue/First Responder & CPR .....	3
HSL 1040 Skills and Methods of Teaching Activities for the Young Child .....	2
- or -	
LES 4630 Leisure Service Programs for the Older Adult .....	3
LES 2110 Leadership Skills and Techniques in Leisure Services .....	3
LES 2350 Leisure Services for Special Populations .....	3
LES 3970 Practicum in Leisure Services .....	3

For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

### AQUATICS ASSISTANT

HPL 1030 Swim Conditioning .....	2
HPL 1040 Water Exercise .....	2
HPL 1060 Lifeguard Training .....	2
HPS 2060 Emergency Rescue/First Responder & CPR .....	3
HPS 2160 Water Safety Instructor Certification .....	3
HSL 1200 Skills of Swimming, Water Safety and Water Exercise .....	2
LES 4550 Management of Aquatic Resources .....	3

For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

### EXTENDED DAY ACTIVITIES AIDE

HPS 2060 Emergency Rescue/First Responder & CPR .....	3
HPS 2130 Activities and Health for the Elementary Child .....	3
HSL 1040 Skills and Methods of Teaching Activities for the Young Child .....	2
HSL 1050 Skills and Methods of Teaching Rhythms for the Young Child .....	2
LES 2110 Leadership Skills and Techniques in Leisure Studies .....	3

For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

### CONDITIONING SPECIALIST

HPS 1640 Physical Fitness Techniques and Programs .....	2
HPS 2060 Emergency Rescue/First Responder & CPR .....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
HSL 1020 Skills and Methods of Teaching Weight Training and Exercise Aerobics .....	2

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Select two of the following:

HPL 1030 Swim Conditioning .....	2
HPL 1040 Water Exercise .....	2
HPL 1780 Step Aerobics .....	2
HPL 1790 Aerobics.....	2
HPL 1810 Hip and Thigh Conditioning .....	2
HPL 1820 Stretch and Strength .....	2
HPL 1830 Walk, Jog, Run .....	2

For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

### OFFICIATING

HPS 2060 Emergency Rescue/First Responder & CPR .....	2
HPS 2110 Officiating (pick same sports as HSL Skills and Methods classes) ....	2
HPS 2110 Officiating (pick same sports as HSL Skills and Methods classes) ....	2
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators ..	3
HSL S/M	
HSL S/M	

For prerequisites and more information, call Dr. Bruce Morgenegg, 303-556-2589.

## Human Services Department

The face of American society today is drastically different than that of our parents and grandparents. As we move into the 21st century, American themes of competitive individualism, economic pressure, social diversity, and community instability are forcing service providers to grapple with human needs in ways that were not imagined in previous generations. The Human Services Department at The Metropolitan State College of Denver focuses on preparing students for careers in which they face the diverse challenges involved in helping individuals, couples, and families meet the challenges of living.

The human services curriculum prepares students to combine knowledge from the social and behavioral sciences with the art of compassion and understanding to assist people in their lives. Our nationally recognized curriculum, approved by the Council of Standards in Human Service Education and the Alcohol and Drug Abuse Division of the Colorado Department of Health, provides coursework in assessment, diagnosis, prevention, and intervention of psychological and emotional difficulties. Specifically, the training covers counseling and applied psychotherapy for individuals, couples, families, and groups; addiction intervention theory and techniques; domestic violence counseling; and nonprofit administration principles. Particular attention is given to racial, gender, socioeconomic class, and cultural issues in the delivery of human services. Our core curriculum can be supplemented with a concentration in high risk youth, drug and alcohol counseling, domestic violence counseling, or nonprofit organization administration.

Learning opportunities are provided through classroom and field placement experiences. Classes are small and are highly interactive, ensuring a more personalized learning experience. In addition, our nontraditional student population brings a wide range of professional and life experience to the classroom. Field instruction experiences at community agencies further reinforce textbook learning and provide networking opportunities for our students.

Classes are taught by highly qualified instructors who have doctoral and master's degrees in such diverse fields as psychology, social work, theology, education, human communication, nutrition, sociology, and nonprofit organization administration. Instructors in the Human

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Services Department also have real-life experience as practitioners in a variety of human services. Various state licenses and certifications substantiate their expertise. Committed to teaching excellence, our faculty receive some of the highest student ratings in the college.

Graduates with degrees in human services are qualified to work in a variety of settings, including community health centers, addiction centers, nonprofit organizations, employee assistance programs, religious organizations, and social service agencies. Our program has generated an 87 percent employment rate for our graduates in careers directly related to the major. Many of our graduates go on to complete graduate education in psychology, theology, social work, addiction studies, public administration, or other areas, including business and law.

Regardless of individual career objectives, however, people who major in Human Services are people who want to help others. A bachelor of science degree in Human Services prepares students to become professionals in the art and science of helping others. Students combine the knowledge and experience gained in our program with their own sense of commitment and compassion to make positive contributions to others' lives.

### Human Services Major for Bachelor of Science

The student must complete the General Studies and degree requirements of the college. All human services majors must pass each of the professional core courses listed below with a grade of "C" or better. Students who major in human services are not required to complete a minor.

Core Courses for the Major .....	Semester Hours
HSP 1010 Introduction to Human Services and Community Resources .....	4
HSP 1040 Applied Behavior Analysis .....	4
HSP 2020 Small Group Dynamics: Theory and Experience.....	4
HSP 2030 Theory and Practice of Counseling .....	4
HSP 2040 Family Systems .....	4
HSP 2050 Human Services Practicum I .....	8
HSP 3330 Ethical and Professional Issues in Human Services .....	2
HSP 4320 Psychopathology and the Mental Health Clinician .....	4
HSP 4790 Professional Internship .....	12
<i>Subtotal</i> .....	46

Also required for the major, Addiction Studies Concentration, and Domestic Violence Counseling Concentration:

HSP 2060 Human Services Practicum II .....	8
<i>Total</i> .....	54

In addition to the core, general human services majors must take 16 further hours of human services courses. It is highly recommended that one course be:

HSP 3490 Multicultural Issues in Human Services .....	4
(meets the multicultural requirement for graduation)	

The remaining 12 hours may be chosen from the concentrations or from the following list of human services electives.



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Electives within Human Services Department (approval of advisor required). The following courses are not a required part of any concentration and may be used as electives from the human services.

HSP 1110 Introduction to Disabilities .....	4
HSP 1470* Addictive Experiences: Sex, Drugs, Rock and Roll .....	3
HSP 2110 Inclusive Community Services for People with Disabilities .....	3
HSP 3040 Brief Therapy for Couples .....	3
HSP 3220 Conflict Resolution and Decision-Making .....	2
HSP 3410 Addiction Family Counseling/Advanced Topics .....	3
HSP 3450 Crisis Intervention and Legal Issues .....	4
HSP 3480 Applied Counseling Skills .....	2
HSP 3750 Holistic Health and High-Level Wellness .....	4
HSP 4100 Gerontology for Human Service Professionals .....	2
HSP 4200 Child Abuse and Neglect .....	2
HSP 4220 Family Sculpting .....	2
HSP 4250 Counseling the Gay or Lesbian Client .....	2
HSP 4280 Gender Issues in Treatment and Recovery .....	1
HSP 4290 PTSD Counseling .....	1
HSP 4360 Advanced Intervention Techniques .....	4
HSP 4490 Contemporary Issues in Human Services: Variable Topics .....	1-4
HSP 4500 Legal Liabilities in the Helping Professions .....	1
HSP 4520 Grief Counseling .....	3
HSP 4540 Youth, Drugs and Gangs .....	2
HSP 4650 Group Facilitation and Group Counseling.....	4
Electives in Human Services Total .....	16
<i>Total Hours for Major</i> .....	70

Electives outside the Human Services Department .....17

General Studies** .....	33
<i>Total for Graduation</i> .....	120

*\*HSP 1470 does not count as an elective for addictions majors.*

*\*\*Students should consult an advisor for recommended General Studies courses.*

## The Center for Addiction Studies

Housed in the School of Professional Studies with its academic courses in the Department of Human Services, the Center for Addiction Studies offers two programs:

- counselor training program in drugs, alcohol, and addictive behavior counseling (45 semester hours subject to ADAD CAC certification requirements)
- bachelor of science degree in human services with concentration in drug, alcohol and addictive behaviors

Each student in the center has an individually tailored program leading to the college degree and state certification as a drug/alcohol counselor, as well as a counselor for other addictive behaviors such as smoking, gambling, and food disorders.

In addition to classroom instruction, the drug, alcohol, and addictive behavior counselor training program uses metro Denver area facilities for experiential training of students. Many course offerings are outreach or community-oriented. Graduates attain understanding, skills, and attitudes necessary to function as professional addiction counselors. Individuals

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interested in these programs should contact the center for further information at 303-556-2951.

### Addiction Studies Concentration

Required Courses .....	Semester Hours
Human Services core .....	46
HSP 1060 Pharmacology of Drugs and Alcohol .....	3
HSP 2060 Human Services Practicum II .....	8
HSP 3430 Addictive Behaviors .....	3
HSP 3470 Counseling the Substance Abuser .....	4
HSP 3580 The Resistive Client	
- or -	
HSP 3590 The Resistive Adolescent Client .....	1
<i>Total Hours for Addiction Studies Concentration .....</i>	<i>65</i>

Electives within the Human Services Department (approval of advisor required)

In addition to the core, general human services majors must take 12 further hours of human services courses. It is highly recommended that one course be:

HSP 3490 Multicultural Issues in Human Services .....4  
(meets the multicultural requirement for graduation)

The remaining 8 hours may be chosen from the other concentrations or from the list of human services electives.

<i>Human Services electives .....</i>	<i>12</i>
General Electives .....	10
General Studies .....	33
<i>Total for Degree .....</i>	<i>120</i>

*Please see an advisor to discuss CAC certification requirements.*

### Domestic Violence Counseling Concentration

Domestic violence is a growing societal problem that may be addressed through competent counseling by professionals trained to understand the dynamics involved. A concentration in domestic violence counseling provides the student with a broad knowledge base through the core classes in human services and with knowledge and skills essential for working with perpetrators and victims of abuse.

The courses included in this concentration are based on the standards established by the State Commission on Educational Standards in Domestic Violence Counseling. Once the student has completed the required courses, application may be made by the agency of employment for certification as a provider of domestic violence counseling. Included in the concentration are many of the courses required for certification as a substance abuse counselor. These classes have been designated because of the close relationship between domestic violence and substance abuse.

Required Courses .....	Semester Hours
Human Services Core .....	46
HSP 1060 Pharmacology of Drugs and Alcohol .....	3
HSP 2060 Human Services Practicum II .....	8

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HSP 3470 Counseling the Substance Abuser .....	4
HSP 3490 Multicultural Issues in Human Services .....	4
HSP 3500 Domestic Violence: Patterns of Relationship Abuse ..	3
HSP 3580* The Resistive Client .....	1
HSP 3600 Domestic Violence: Perpetrators of Abuse .....	2
HSP 3650 Treatment of Adult Survivors .....	1
HSP 4280 Gender Issues in Treatment and Recovery .....	1
HSP 4500 Legal Liabilities in the Helping Professions .....	1
<i>Total</i> .....	74

*\*Note: Domestic Violence students may **not** take HSP 3590 in place of HSP 3580.*

### Electives

Inside the Department-select 8 hours from the following:

HSP 3220 Conflict Resolution and Decision-Making .....	2
HSP 3430 Addictive Behaviors .....	3
HSP 4200 Child Abuse and Neglect .....	2
HSP 4250 Counseling the Gay or Lesbian Client .....	2
HSP 4290 PTSD Counseling .....	1
HSP 4360 Advanced Intervention Techniques .....	4
HSP 4540 Youth, Drugs and Gangs .....	2
<i>Total</i> .....	8

To complete the 120 semester hours required for the degree, five hours of additional electives are required. These hours may be taken either inside or outside the Human Services Department. Some suggested electives from other departments:

PSY 2210 Psychology of Human Development .....	3
PSY 2850 Psychology of Sexuality .....	3
WMS 1001 Introduction: Woman in Transition .....	3
WMS 234B Stress Management .....	1
WMS 3310 Women and the Law .....	3
<i>Total Electives</i> .....	5
General Studies Requirements .....	33
<i>Total for Graduation</i> .....	120

*Please see an advisor to discuss Domestic Violence certification requirements.*

## Nonprofit Organization Administration Concentration

The nonprofit organization administration concentration provides both degree-seeking and career advancement professionals with the academic background and management skills to become effective managers in a variety of nonprofit settings. In today's competitive world of nonprofit organizations with limited resources, nonprofit managers must have solid administrative knowledge and skills if their organizations are to succeed.

The curriculum of the nonprofit administration concentration consists of six courses, a single field practicum, and a professional internship for a total of 44 credit hours. The nonprofit organization administration curriculum, combined with the Human Services core curriculum, totals 70 hours.

Required Courses .....	Semester Hours
Human Services Core .....	46
HSP 2010 Principles of Nonprofit Organization Administration .....	4

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HSP 3210 Organizational Stability of Nonprofits.....	4
HSP 3610 Financial Accountability and Organizational Control in Nonprofit Organizations .....	4
HSP 4020 Fundraising and Proposal Writing for Nonprofit Organizations..	4
HSP 4310 Human Resource Development in Nonprofit Organizations .....	4
HSP 4680 Supervisory Techniques in Nonprofit Organizations (Health Care Agencies) .....	4
<i>Subtotal</i> .....	70
Electives .....	17
General Studies .....	33
<i>Total for Nonprofit Organization Administration Concentration</i> .....	120

## High Risk Youth Concentration

Problems facing today's youth continue to present special challenges for those trying to help them. Substance abuse, violence, teen pregnancy, school dropout, teen suicide, delinquency, gang involvement, family problems, abuse and neglect as well as other problems require professionals to utilize special expertise to build on a youth's strengths and engage him or her in a change-oriented therapeutic and culturally relevant action plan. This concentration prepares the human services professional to work in a variety of high risk youth program locations including outpatient counseling, community-based living or institutional settings. Additionally, high risk youth professionals need sound interdisciplinary skills with which to negotiate complex service delivery systems on behalf of the youth and families they serve. Skills in networking, case planning and management and advocacy are underscored in this concentration. Demand for professionals with interdisciplinary competence in working with youth populations is high. This concentration includes the state required certification program to be an "Alcohol and Drug Prevention Generalist." Students are also encouraged to pursue alcohol and drug certification as part of their degree programs due to the strong overlap between high risk youth behaviors and substance abuse. Many of the required courses to do so are included in the concentration.

Required Courses .....	Semester Hours
Human Services core .....	46
HSP 3230 High Risk and Offender Youth .....	4
HSP 3260 Survey of the High Risk Youth Integrated Services and Treatment Network .....	2
HSP 3490 Multicultural Issues in Human Services .....	4
HSP 3590 The Resistive Adolescent Client .....	1
HSP 3620 Prevention Generalist Workshop .....	2
<i>Subtotal</i> .....	59

Required coursework outside the Human Services Department	
CJC 3350 Seminar in Delinquency Causation, Prevention and Control ...	3
PSY 3260 Psychology of Adolescence .....	3
SOC 3400 Childhood and Adolescent Socialization .....	3
SWK 3010 Social Work Services for Children and Adolescents .....	4
<i>Subtotal</i> .....	13
General Studies .....	33

*(Note: High Risk Youth students must take SOC 1010 and PSY 1001 as part of their General Studies.)*

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To complete the 120 semester hours required for the degree, 15 hours of electives are required. Advisors will counsel students about possible electives. Some suggested electives include:

HSP 3410 Addiction Family Counseling/Advanced Topics .....	3
HSP 3430 Addictive Behaviors .....	3
HSP 3450 Crisis Intervention and Legal Issues .....	4
HSP 4200 Child Abuse and Neglect .....	2
HSP 4290 PTSD Counseling .....	1
HSP 4540 Youth, Drugs and Gangs .....	2
<i>Subtotal</i> .....	15
<i>Total for High Risk Youth Studies Concentration</i> .....	120

## Minor in Human Services

The minor consists of a minimum of 24 semester hours, eight of which must be upper division. The student must present a proposal of selected courses from the Human Services curriculum to the chair for consideration and approval.

### Certificate Program Available

#### HIGH RISK YOUTH STUDIES

The 16-hour Certificate of Completion in High Risk Youth Studies meets the need for a comprehensive learning opportunity for those persons who wish to expand their base of knowledge about current practices for the prevention, intervention and treatment of high risk youth in a wide variety of high risk youth practice settings.

In order to qualify for the Certificate of Completion in High Risk Youth Studies, the student must complete an application verifying clinical or volunteer experience working with youth at risk. Contact the Center for High Risk Youth Studies (CHRY) in the Human Services Department at 303-556-2951 for more information.

Required Courses .....	Semester Hours
HSP 3230 High Risk and Offender Youth .....	4
HSP 3260 Survey of the High Risk Youth Integrated Services and Treatment Network.....	2
HSP 3490 Multicultural Issues in Human Services .....	4
HSP 3590 The Resistant Adolescent Client .....	1
MDL 1300 Languages for the Professionals* .....	2
XXX Elective** .....	3
Total .....	16

*\*If a student has a specific need to learn a language other than Spanish, he or she may substitute another language course for these two hours with the approval of the Director of the Center for High Risk Youth Studies. Students may substitute MDL 1610, American Sign Language I, or other language courses as relevant. If a student already possesses the necessary language proficiencies described (as demonstrated by an oral or demonstration examination with appropriate language-related faculty) he or she may elect to substitute two semester hours of upper division human services coursework for this requirement.*

*\*\*A three semester hour elective in a related subject area to be selected by the student in consultation with an HSP/CHRY advisor. Note that CJC 3350, Seminar in Delinquency Causation, Prevention and Control, is recommended but other courses may be included as*

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*part of the certificate of completion as relevant to the individual student's needs and career goals and interests.*

### Industrial and Technical Studies Program

The Industrial and Technical Studies program offers the following majors:

Bachelor of Science:

- Industrial and Technical Studies (ITS) Business Concentration
- Industrial Arts Teaching Concentration

Bachelor of Arts:

- Industrial Design (IND)

Minors:

- Industrial Arts Teaching Concentration

#### General Studies

Students must consult with a faculty advisor regarding General Studies requirements.

#### Credit by Examination

Often students selecting the industrial and technical studies major have extensive experience in business, industry, or the military, which parallels the content of some of the courses. To receive credit for such experience, the student must contact the program coordinator for evaluation.

### Industrial and Technical Studies Major for Bachelor of Science Degree

In order to be awarded the bachelor of science degree in industrial and technical studies, the student must meet the college's general specifications for the bachelor's degree and must complete the courses required for one of the two concentrations (industrial arts teaching or business) listed below. No minor is required.

#### Industrial Arts Teaching Concentration

Graduates meet all the state requirements for a secondary teaching license and are qualified to teach industrial arts in both middle and senior high schools. Courses are also offered that are designed for those already teaching and desiring to further their professional growth.

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

Required Courses .....	Semester Hours
General Studies .....	33
ITS 1010 Introduction to Woodworking .....	4
ITS 1030 Finishing Materials and Processes .....	2
ITS 1130 Introduction to Plastics .....	3
ITS 1200 Introduction to General Metals: Cold Metals	
-or-	

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ITS 1220 Introduction to General Metals: Hot Metals .....	2
ITS 1430 Introduction to Industrial Drawing .....	2
ITS 1500 Introduction to Graphic Arts I	
-or-	
ITS 1510 Introduction to Graphic Arts II .....	2
ITS 1660 Introduction to Power .....	3
<i>Subtotal</i> .....	18

Choose two from the following three:

ITS 1710 Consumer Electricity/Electronics: Communication Systems .....	2
ITS 1720 Consumer Electricity/Electronics: Control Systems. ....	2
ITS 1750 Consumer Electricity/Electronics: Residential Systems .....	2
<i>Subtotal</i> .....	4

ITS 2690 Alternate Energy and Transportation .....	2
ITS 2810 Technology, Society and You .....	3
ITS 2830 Manufacturing Organization and Processes .....	2
ITS 3410 Computer-Aided Drafting for Industry .....	3
ITS 3800 Industrial Safety and Production .....	4
ITS 4810 Curriculum and Methods of Teaching Industrial Arts .....	3
ITS 4830 Organization and Administration of Industrial Arts .....	3
ITS 4840 Emerging Technologies .....	2
ITS 4860 Research in Industrial Technology .....	2
ITS Upper-division Electives (two different areas) .....	8
<i>Subtotal</i> .....	36

### Teaching Licensure Requirements

EDS 3110 Process of Learning in Multicultural Urban Secondary Schools.	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools ..	3
EDS 3200 Educational Psychology Applied to Teaching .....	3
EDS 3210 Secondary School Curriculum and Classroom Management .....	3
EDS 3220 Field Experiences in Teaching, Materials Construction, and Classroom Management .....	3
EDS 4290 Student Teaching and Seminar: Secondary .....	12
EDT 3610 Introduction to Educational Technology .....	1-3
RDG 3280 Teaching of Reading and Writing in the Content Areas .....	4
SED 3600 The Exceptional Learner in the Classroom .....	3
<i>Subtotal</i> .....	35-37
<i>Total</i> .....	122-124

## Business Concentration

Selection of the business concentration prepares students to enter business and industry in a variety of capacities. Sales, manufacturing, management, and small-business operation provide diverse opportunities for graduates. Within this concentration, specialty areas are available in drafting, electricity/electronics, graphics, metals, and woods.

## Industrial and Technical Studies Core-Non-Teaching

The following core courses are required for all specialty areas within the business concentration:

General Studies .....	33
ITS 1010 Introduction to Woodworking .....	4
ITS 1030 Finishing Materials and Processes .....	2

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ITS 1130 Introduction to Plastics .....	3
ITS 1200 Introduction to General Metals: Cold Metals .....	2
ITS 1220 Introduction to General Metals: Hot Metals .....	2
ITS 1430 Introduction to Industrial Drawing .....	2
ITS 1500 Introduction to Graphic Arts I .....	2
ITS 1510 Introduction to Graphic Arts II .....	2
ITS 1660 Introduction to Power .....	3
<i>Subtotal</i> .....	22

Choose two from the following three:

ITS 1710 Consumer Electricity/Electronics: Communication Systems .....	2
ITS 1720 Consumer Electricity/Electronics: Control Systems .....	2
ITS 1750 Consumer Electricity/Electronics: Residential Systems .....	2

<i>Subtotal</i> .....	4
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ITS 2690 Alternate Energy and Transportation .....	2
ITS 2810 Technology, Society, and You .....	3
ITS 2830 Manufacturing Organization and Processes .....	2
ITS 3410 Computer Aided Drafting for Industry .....	3
ITS 3800 Industrial Safety and Production .....	4
ITS 4860 Research in Industrial Technology .....	2
ITS 4960 Industrial Internship .....	4
<i>Subtotal</i> .....	20
<i>Total</i> .....	46

Science and/or Mathematics for Electricity/Electronics Specialty

MTH 1110 College Algebra .....	4
PHY 1000 Introduction to Physics .....	4

### Business Core

Choose from the following:

ACC 2010 Principles of Accounting I .....	3
ACC 3080 Small Business Taxation .....	3
ECO 2010 Principles of Economics-Macro .....	3
ITS 3700 Industrial Safety .....	3
ITS 3710 Developments in Industrial and Technical Processes .....	3
ITS 3720 Characteristics of Industrial and Technical Personnel Selection, Supervision, and Evaluation .....	3
ITS 4730 Assessment of Trade and Technical Enterprises .....	3
ITS 4740 Organizational Structures for Technical Enterprises .....	2
MGT 2210 Legal Environment of Business I .....	3
MGT 2500 Small Business Management .....	3
MGT 3000 Organizational Management .....	3
MGT 3210 Commercial and Corporate Law .....	3
MKT 3000 Principles of Marketing .....	3
<i>Total</i> .....	24

### Specialty Areas

#### Drafting

CET 2100 Structural Drawing .....	4
ITS 3410 Computer Aided Drafting for Industry I .....	3



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ITS 3500 Advanced Graphic Arts .....	4
ITS 4410 Computer Aided Drafting for Industry II.....	3
ITS 4870 Special Studies in Industrial and Technical Studies.....	5
SUR 2620 Survey Drafting - CAD .....	3

### Electricity/Electronics

EET 2140 Electronics I .....	4
EET 2320 Digital Circuits I .....	3
EET 3330 Digital Circuits II.....	3
EET 3360 Microprocessors .....	3
ITS 4870 Special Studies in Electronics .....	4

### Graphics

ITS 3410 Computer-Aided Drafting for Industry I .....	3
ITS 3500 Advanced Graphic Arts .....	4
ITS 4870 Special Studies in Industrial and Technical Studies .....	5
TEI 200 Airbrush I (CCD Course) .....	6

### Metals

ITS 2310 Art Metal, Silversmith and Lapidary .....	2
ITS 3210 Advanced Metalworking .....	4
ITS 3410 Computer-Aided Drafting for Industry I .....	3
ITS 4200 Welding Technology .....	4
ITS 4870 Special Studies in Industrial and Technical Studies .....	5

### Wood

ITS 3410 Computer-Aided Drafting for Industry I .....	3
ITS 4030 Advanced Wood Processes .....	4
ITS 4870 Special Studies in Industrial and Technical Studies .....	12
Electives .....	0-7
<i>Total</i> .....	121-122

## Industrial and Technical Studies Minor

This minor must be approved in writing by the program coordinator. The coordinator must approve the plan of study and will take into account the student's previous experience and occupational goals.

### Industrial Arts Teaching Concentration

Required Courses	
ITS 3800 Industrial Safety and Production .....	4
ITS 4810 Curriculum and Methods of Teaching Industrial Arts .....	3
ITS 4830 Organization and Administration of Industrial Arts .....	3
ITS Lower-division Elective.....	8
ITS Upper-division Elective .....	4
<i>Total</i> .....	22

Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

## Industrial Design

The industrial design major is offered through industrial and technical studies leading to a bachelor of arts degree.

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### Industrial Design Major for Bachelor of Arts (no minor required)

Required Courses .....	Semester Hours
General Studies (*PSY 1001 required; prerequisite for PSY 4410) .....	33
ITS 1010 Introduction to Woodworking .....	4
ITS 1030 Finishing Materials and Processes .....	2
ART 1100 Basic Drawing I .....	3
ITS 1130 Introduction to Plastics .....	3
ART 1200 Design Processes and Concepts I .....	3
ITS 1200 Introduction to General Metals: Cold Metals .....	2
ART 1210 Design Processes and Concepts II .....	3
ITS 1220 Introduction to General Metals: Hot Metals .....	2
ITS 1430 Introduction to Industrial Drawing .....	2
ITS 1470 Perspective Drawing .....	3
ART 2010 Survey of Modern Art: Impressionism through Abstract Expressionism.	3
ITS 2450 Beginning Industrial Design .....	3
ART 3340 Illustration .....	3
ITS 3410 Computer-Aided Drafting for Industry .....	3
ITS 3450 Intermediate Industrial Design .....	3
ITS 3480 Industrial Design Model Making .....	3
ITS 3530 Digital Photography .....	3
ITS 3800 Industrial Safety and Production .....	4
ITS 3950 History of Industrial Product Design .....	3
ITS 4030 Advanced Wood Processes .....	4
PSY 4410 Human Factors Engineering .....	3
ITS 4450 Advanced Industrial Design I .....	3
ITS 4460 Advanced Industrial Design II .....	3
ITS 4540 Advanced Design Concept Visualization .....	3
ITS 4960 Professional Industrial Internship .....	4
<i>Subtotal</i> .....	75

#### Electives

Students should consult with an Industrial Design faculty advisor in the Engineering Technology Department before selecting their electives. The following three courses are strongly recommended.

ITS 2830 Manufacturing Organization and Processes .....	2
ITS 3660 Computer Aided Industrial Design .....	3
ITS 4090 Advanced Modelmaking Fabrication Techniques .....	3
Other Electives .....	4
<i>Total</i> .....	120

## Leisure Studies

The leisure studies major is intended to prepare students to enter recreation-related jobs that are available at both local and national levels. The major consists of a common core of courses deemed essential for all recreation personnel, and emphasizes fieldwork with various types of recreation, parks, conservation, and other social service agencies. Contact the Human Performance, Sport and Leisure Studies Department for additional information.

In conjunction with the core course selections, the student will select one concentration. The concentrations provide the student with specialized knowledge and skills related to particular job functions of the various recreation-related service agencies. The

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concentrations from which the student may select are therapeutic recreation services and leisure services management. Students must receive a "C" or better in human performance, sports and leisure courses.

The following courses are required by leisure studies to meet National Recreation and Park Association and the American Association for Leisure and Recreation Accreditation Standards:

LES 4890 Internship for Leisure Studies (Recreation) .....	12
PSY 2210 Psychology of Human Development .....	3

Core Courses .....	Semester Hours
LES 1870 Introduction to Recreation and Leisure Services .....	3
LES 2110 Leadership Skills and Techniques in Leisure Services.....	3
LES 2350 Leisure Services for Special Populations .....	3
LES 3870 Leisure Services Internship Seminar .....	2
LES 3930 Contemporary Issues in Leisure Services (variable topic).....	1-3
LES 3970 Practicum in Leisure Services .....	3
LES 4110 Program Development in Leisure Services .....	3
LES 4130 Administration of Leisure Services .....	3
<i>Subtotal</i> .....	21-23

Concentration	
Therapeutic Recreation Services .....	39
Leisure Services Management .....	33

*Note: "Emergency Response" and "CPR for the Professional Rescuer" cards are required. Students may take HPS 2060 or complete certification in "Emergency Response" and "CPR for the Professional Rescuer" through the American Red Cross. Students who take HPS 2060 may list this course in the "elective" category on their graduation agreement.*

## Areas of Concentration

### Therapeutic Recreation Services\*

*\*Extended major-no minor required.*

Select six hours from the following: .....	Semester Hours
HSL 1030 Skills and Methods of Teaching Physical Activities for Special Populations ...	2
HSL 1250 Adaptive Aquatic Programs .....	2
HSL 1340 Skills and Methods of Teaching Rhythms for Special Populations .....	2
HSL 1420 Activity and Fitness Programs for the Elderly .....	2
HSL 1430 Camping for Special Populations .....	2
HSL 1440 Stress Management .....	2
<i>Subtotal</i> .....	6

### Theory Courses (required)

BIO 2320 Human Anatomy and Physiology II .....	4
LES 3330 Introduction to Therapeutic Recreation Services .....	3
LES 3430 Program Development in Therapeutic Recreation .....	3
LES 3530 Techniques in Therapeutic Recreation .....	3
LES 4030 Issues and Trends in Therapeutic Recreation .....	3
LES 4150 Advanced Techniques in Therapeutic Recreation .....	3
PSY 3620 Abnormal Psychology .....	3
<i>Subtotal</i> .....	22

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Select 11 hours from the following:

HPS 3300 Anatomical Kinesiology .....	3
HPS 3340 Physiology of Exercise .....	3
LES 2330 Advocacy, Leisure, and the Aging Adult .....	3
LES 3070 Health and Movement Problems in the Aging Adult .....	3
LES 4630 Leisure Service Programs for the Older Adult .....	3
LES 4800 Workshop Courses (variable credit) .....	1-3
LES 4810 Grants and Financial Aid Programs in Leisure Services .....	3
PSY 3400 Psychology of Exceptional Children .....	3
SOC 2500 Deviant Behavior in Society .....	3
SOC 3100 Death and Dying .....	3
<i>Subtotal</i> .....	11
<i>Total</i> .....	39

## Leisure Services Management\*

Required Courses .....	Semester Hours
LES 2150 Maintenance of Leisure Service Facilities and Recreation Equipment .....	3
LES 3830 Facilities and Area Design in Leisure Services .....	3
LES 4850 Advanced Administration of Leisure Services .....	3
MGT 3000 Organizational Management .....	3
MGT 3530 Human Resources Management .....	3
MKT 3000 Principles of Marketing .....	3
<i>Subtotal</i> .....	18

Select 8 hours from the following:

HPS 3460 Measurement and Evaluation in Human Performance and Sport .....	3
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators .....	3
HSL Skills and Methods Course .....	2
LES 2210 Camping and Outdoor Recreation .....	3
LES 2330 Advocacy, Leisure and the Aging Adult .....	3
LES 4550 Management of Aquatic Resources .....	3
LES 4630 Leisure Service Programs for the Older Adult .....	3
LES 4800 Workshops (variable credit) .....	1-3
LES 4810 Grants and Financial Aid Programs in Leisure Services .....	3
<i>Subtotal</i> .....	8
Electives .....	7
<i>Total</i> .....	33

*\*Requires completion of a minor.*

## Leisure Services Minor

LES 1870 Introduction to Recreation and Leisure Services .....	3
LES 2110 Leadership Skills and Techniques in Leisure Services .....	3
LES 2350 Leisure Services for Special Populations .....	3
LES 3970 Practicum in Leisure Services .....	3
LES 4110 Program Development in Leisure Services .....	3
<i>Subtotal</i> .....	15

Select 6 hours from the following (in consultation with an advisor):

LES 2150 Maintenance of Leisure Service Facilities and Recreation Equipment .....	3
LES 2210 Camping and Outdoor Recreation .....	3
LES 2330 Advocacy, Leisure and the Aging Adult .....	3
LES 3330 Introduction to Therapeutic Recreation Services .....	3

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LES 3830 Facilities and Area Design in Leisure Services .....	3
LES 4130 Administration of Leisure Services .....	3
LES 4630 Leisure Service Programs for the Older Adult .....	3
LES 4810 Grants and Financial Aid Programs in Leisure Services .....	3
<i>Subtotal</i> .....	6
<i>Total Hours Required for the Minor</i> .....	21

## Mechanical Engineering Technology Program

The day and evening program is continually upgraded to reflect state-of-the art technology while meeting the needs of industry and employers of the mechanical engineering technology graduates. An advisory committee, which includes employers, graduates, and students of the program, meets with faculty and administrators to review curriculum, student and faculty recruitment, program needs, progress, problems and probable solutions, laboratory equipment, facilities, and to assist in the placement of graduates. The committee assures a high level of community awareness and support of the program.

Graduates enter the engineering profession as engineering technologists. About 15 percent choose to take the Fundamentals of Engineering (F.E.) examination following graduation, to begin the six-year process, as a minimum, to become a registered professional engineer. The latter is often required for forensic (expert witness) and/or consulting work, when the health and safety of the general public are involved. A smaller percentage attend graduate school. The majority obtains gainful employment in a variety of industries ranging from large aerospace companies to small manufacturing and custom-design businesses. Job titles range from technician and engineering technologist to engineer.

The MET program offers the bachelor of science degree, which is accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET). The educational approach is hands-on with 63 percent of the courses requiring laboratory work in addition to lectures. It is structured with two distinct concentrations: manufacturing and mechanical. Students are required to take a four-hour assessment examination prior to graduation. The written exam is given in the Senior Experience course in each concentration.

The MET curriculum is currently being revised. Please check with an advisor about the requirements.

### Mechanical Engineering Technology Major for Bachelor of Science

Required Technical Courses+ .....	Semester Hours
MET 1000 Materials and Manufacturing Technology .....	3
MET 1010 Manufacturing Processes .....	3
MET 1200 Technical Drawing I (or equivalent) .....	3
MET 1310 Principles of Quality Assurance .....	3
MET 2150 Mechanics I-Statics .....	3
MET 2200 Materials of Engineering .....	3
MET 2220 Computer-Aided Drafting for Engineering Technology .....	3
MET 3010 Fluid Flow I .....	3
MET 3070 Machine Design .....	3
MET 3110 Thermodynamics .....	3
MET 3130 Mechanics of Materials .....	3
MET 3135 Mechanics of Materials Laboratory .....	1
MET 3160 Mechanics II-Dynamics .....	3

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MET 3210 Introduction to Computer Aided Engineering .....	4
MET 3410 Geometric Dimensioning and Tolerancing .....	3
MET 4000 Project Engineering .....	3
<i>Subtotal</i> .....	47

Additional Technical Course Requirements: .....Semester Hours

EET 2000 Electric Circuits and Machines .....	3
EET 3010 Industrial Electronics .....	4
<i>Subtotal</i> .....	7

Additional Course Requirements:

CHE 1800* General Chemistry I .....	4
COM 2610 Introduction to Technical Writing .....	3
ECO 2010* Principles of Economics-Macro .....	3
ENG 1010* Freshman Composition: The Essay .....	3
ENG 1020* Freshman Composition: Analysis, Research and Documentation .....	3
MTH 1400* Precalculus Mathematics (MTH 1110, 1120 may be substituted) .....	4
MTH 1410* Calculus I .....	4
MTH 2410* Calculus II .....	4
PHY 2010* College Physics I.....	4
PHY 2020* College Physics II .....	4
PHY 2030* College Physics I Laboratory .....	1
PHY 2040* College Physics II Laboratory .....	1
PHI 1030* Ethics .....	3
SPE 1010* Public Speaking .....	3
XXX XXX* Level II General Studies - Historical .....	3
XXX XXX* Level II General Studies - Arts and Letters .....	3
XXX XXX* Level II General Studies - Social Science .....	3
<i>Subtotal</i> .....	53

*\*Some of these courses may be used to satisfy General Studies, including the 3 credit hour Multicultural requirement.*

*+The requirements for the Mechanical Engineering Technology major are being revised. Please consult with a Mechanical Engineering Technology advisor.*

## Areas of Concentration (Choose one Concentration)

### Manufacturing+

MET 3000 Manufacturing Analysis .....	4
MET 3100 N/C Computer Programming .....	3
MET 3250 Tool Design and Production Tooling .....	3
MET 3300 Statistical Process Control .....	3
MET 3330 Robotics for Manufacturing .....	3
MET 4010** Advanced Manufacturing Technology .....	3
MET 4080 Computer-Aided Manufacturing .....	3
<i>Subtotal</i> .....	22

*+Note: Please consult with the Mechanical Engineering Technology faculty regarding the availability of this concentration and the above courses.*

### Mechanical

MET 3020 Fluid Flow II .....	3
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MET 3120 Heat Transfer .....	2
MET 3140 Heat Transfer Laboratory .....	1
MET 3310 Thermodynamics II .....	3
MET 3320 Instrumentation Laboratory .....	3
MET 4070** Computer-Aided Design .....	3
MET 4280 Advanced Energy Technology .....	3
XXX XXX Upper-division MET Elective .....	3
<i>Subtotal</i> .....	21
<i>Total</i> .....	131-132

*\*\*Senior Experience courses.*

## Mechanical Engineering Technology Minor Requirements

MET 1000 Materials and Manufacturing Technology ...	3
MET 1010 Manufacturing Processes .....	3
MET 1310 Principles of Quality Assurance .....	3
MET 2200 Materials of Engineering .....	3
Upper-division MET Electives .....	6
<i>Total</i> .....	18

## Nursing

The purposes of the Baccalaureate Registered Nurse Completion Program are to provide the diploma and associate degree nurse graduate with a broad educational base for improvement of nursing practices, preparation for meeting future health care needs of society, preparation for graduate education in nursing, and opportunity for continuous personal growth and professional development. Nursing students must earn a grade of "C" or better in all NUR prefix courses in order to progress through the program. Courses with grades of less than "C" will need to be repeated in order for the student to take any other courses for which the first course is a prerequisite.

Students desiring to enter the nursing program in the Health Professions Department need to seek academic advising from a faculty member in the department prior to registration for classes. Students are responsible for keeping themselves informed of the latest program changes. Current program materials are available in the Health Professions Department.

The Baccalaureate Registered Nurse Completion Program is housed in the Department of Health Professions. For more information call 303-556-3130 or go to South Classroom 226.

### Educational Goals and Outcomes

The Baccalaureate Registered Nurse Completion Program has established the following exit behaviors for all graduates:

The student will be able to:

- Value the essential worth and dignity of diverse individuals, families, groups and communities within their environment.
- Demonstrate an attitude of caring, flexibility and self confidence.
- Act in an ethical, legal and socially responsible manner in applying the leadership roles of collaborator, resource person, change agent, teacher and advocate.

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- Use research and theories in developing creative solutions to meet the changing practice of nursing.
- Demonstrate sound judgement and discretion in applying nursing and management principles in the multidisciplinary care environment.
- Use a variety of communication skills, media and strategies effectively and appropriately to influence health.
- Justify nurses being professionally and politically active.
- Work collectively through compromise, negotiation and conflict resolution to enhance the power base of nursing.
- Recognize the incomplete and the evolving nature of human knowledge and understanding and the need for life long learning.
- Think globally to identify social and health care trends to anticipate the future of nursing.
- Use deductive and inductive reasoning to identify underlying assumptions, draw inferences, evaluate arguments and analyze information on issues to examine and solve problems.
- Expand conceptions and ideas about the nursing profession in an ever changing health care environment.

## Admission Requirements

In order to qualify for admission to the baccalaureate registered nurse program the student must:

- Be a graduate from an associate degree or diploma nursing program.
- Be currently licensed as a registered nurse in Colorado.
- Be certified in Basic Cardiac Life Support.
- Have proof of current immunizations for diphtheria, tetanus, polio, MMR (measles, mumps, rubella), and hepatitis B.
- Have proof of negative tuberculosis screening (PPD or Mantoux or negative chest x-ray or negative health history for tuberculosis).
- Carry individual/personal nurses' malpractice/liability insurance in the amount of \$1,000,000/\$3,000,000.
- Complete the Watson-Glaser Critical Thinking Appraisal.
- Be advised by faculty in the nursing program.
- Have copies of all college transcripts on file in the Department of Health Professions.
- Have copy of transcript evaluation from MSCD on file in the Department of Health Professions.
- Demonstrate computer skills in word processing, spreadsheets and use of the internet.
- Have completed 30 semester hours of college-level coursework (exclusive of previous nursing courses) that includes ENG 1010, ENG 1020, a psychology course, a sociology course and 6 semester hours of natural science courses. Support courses may be counted in the above 30 hours. Students lacking selected credits in General Studies are encouraged to take the College Level Examination Program (CLEP) examinations.
- Have recent clinical experience (1,000 hours in the past three years or an approved refresher course in the past three years). If the student has graduated within three years of entering the nursing program, additional clinical experience is not needed.
- Qualify for the Colorado Statewide Nursing Articulation Model/Agreement by one of the following:
  - a.** Graduate from a nursing school in the United States.
  - b.** Graduate from a non-U.S. nursing program and successful completion of ACT PEP



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examinations (Proficiency Examination Program) prior to entering NUR 3110. A passing score of 45 must be achieved on the following examinations: Adult Nursing (#554); Maternal and Child Nursing, Associate Level (#453); and Psychiatric/Mental Health Nursing (#503). The examinations need to be retaken if the student has not enrolled in a baccalaureate nursing program within three years of taking the ACT PEPs. The examinations may be repeated until a passing score is obtained. Twenty-four semester hours credit are awarded upon completion of the three examinations and eight semester hours in residence at MSCD. ACT PEP information is available from a nursing advisor in the Department of Health Professions.

The nursing program offers day and evening classes to accommodate working professionals. Because of the rigorous demands of this program, students are urged to carefully consider home and work obligations when establishing their academic workload. All students must receive academic advising in the department prior to initial enrollment in any NUR prefix course. Students are encouraged to arrange meetings with their academic advisor on an as-needed basis, which shall not be less than once each year. Students are strongly urged to seek academic advising by a nursing faculty advisor prior to registration each semester.

### Requirements for Graduation

- Minimum of 120 credit hours.
- All college requirements for General Studies, Multicultural, and Senior Experience.
- All required support courses.
- All required nursing courses plus one three hour nursing elective course.
- No minor is required.

### Nursing Major for Bachelor of Science

Required Courses	Semester Hours
NUR 3100 Transitions in Nursing	4
NUR 3400 Research: Nursing Critique	2
NUR 3580 Management Issues in Nursing	4
NUR 3650 Ethical Decision Making: Application to Nursing	2
NUR 3700 Assessment	4
NUR 4300 Leadership	4
NUR 4500 Community Health Nursing I	2
NUR 4510 Community Health Nursing II	2
NUR 4550 Community Health Nursing: Application	4
NUR 4850 Nursing Process: Application	3
<i>Total</i>	31

#### Required Support Courses

ANT 3480 Cultural Diversity in Health and Illness	3
HES 3300 Research	1
HES 3650 Ethical Decision Making in Health Care	1
HES 3750 Clinical Pathophysiology I	3
Approved Statistics Course	3-4
<i>Total</i>	11-12

Select three hours of elective credit from the following options:

HES 2000 Health Politics and Policy	3
HES 2150 Alternative Therapies for Health and Healing	3
HES 2180 AIDS: Acquired Immune Deficiency Syndrome	3
HES 3810 Physiology of Aging for Non-Biology Majors	3

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HES 4750 Clinical Pathophysiology II .....	3
HCM any course.....	6
NUR 3510 Nursing Diagnosis .....	1
NUR 3880 Nurse Practice Acts .....	3
NUR 4100 Critical Care Nursing.....	4
NUR 4760 Nursing Theories .....	2
<i>Total</i> .....	3

### Prerequisite

Lower division nursing credit per the Colorado Nursing Articulation Agreement .....	24
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## Reading

Reading offers two outstanding literacy programs. One program provides for the refinement of critical and analytical reading skills that enable college students to enhance the quality of their undergraduate education. RDG 1510, Cognitive Strategies for Analytical Reading, is designed as a college-level reading course that satisfies a General Studies Level I Communications requirement. RDG 3060, Critical Reading/Thinking, provides further practice in the employment of cognitive strategies to discover fallacies, recognize obstacles to critical thinking, and judge the validity of expository writing. This course satisfies a General Studies Level II Arts and Letters requirement.

The second program is a dynamic minor in reading that prepares students for careers in business, industry, government and education as instructional leaders in literacy programs. The minor includes knowledge of the reading process, factors influencing emergent literacy, preparation and presentation of reading lessons, development of instructional materials, identification of reading disability correlates, assessment and interpretation of test results, and a closely supervised remedial reading tutorial experience. Students planning to complete teacher licensure requirements at all levels are encouraged to elect this minor. Teacher education programs are currently undergoing review and may be modified during 2000-2002. Students seeking teacher licensure should read the teacher licensure sections of this *Catalog*, pages 172-173, and they should stay in regular contact with their advisors.

Note: A letter grade of at least a "C" must be attained in each of the courses in the reading minor.

### Reading Minor

Required Courses .....	Semester Hours
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Complete one of the following courses:

RDG 3120* Developing Print Literacy: Preschool-Grade 3 .....	4
RDG 3130* Literacy Instruction in Grades K-6 .....	5
RDG 3150* Middle School Instructional Reading/Writing Strategies .....	4
RDG 3280* Teaching of Reading and Writing in the Content Areas .....	4
<i>Subtotal</i> .....	4-5

To be completed by all reading minors:

RDG 3140 Whole Language Integration Across the Curriculum .....	2
RDG 3600 Practicum in Teaching Reading .....	3
RDG 4250 Literacy Assessment: Theory and Practice .....	4
RDG 4340 Development of Reading/Writing Instructional Materials and Procedures .....	2

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RDG 4600 Practicum in Literacy Enhancement .....	3
<i>Subtotal</i> .....	14
<i>Total</i> .....	18-19

*\*Students should take the course required in their licensure area:*

\*RDG 3120 is required for early childhood education licensure.

\*RDG 3130 is required for elementary education licensure.

\*RDG 3150 is required for middle school endorsement.

\*RDG 3280 is required for secondary education licensure.

### *Highly Recommended*

RDG 3160 Strategies for Enhancing Adult Literacy .....	4
RDG 3530 Teaching Reading to Non-English Speakers.....	2
RDG 3580 Reading in the Bilingual/Bicultural Classroom (competency in Spanish required) .....	3
RDG 4500 Language Arts and the Classroom Computer .....	3

## Certificate Program Available

### LITERACY INSTRUCTOR

For Early Childhood:

RDG 3120 Developing Print Literacy, Preschool-Grade 3 .....	4
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For Elementary:

RDG 3130 Literacy Instruction in Grades K-6 .....	5
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For Secondary:

RDG 3280 Teaching of Reading and Writing in the Content Areas .....	4
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Required:

RDG 3140 Whole Language Integration Across the Curriculum .....	2
RDG 3600 Practicum in Teaching Reading .....	3
RDG 4250 Literacy Assessment: Theory and Practice .....	4
RDG 4340 Development of Reading/Writing Instructional Materials and Procedures .....	2
RDG 4600 Practicum in Literacy Enhancement .....	3

Each of the courses has specific prerequisites. Please call Dr. Doug Cawley for more information, 303-556-3056.

## Surveying and Mapping

The bachelor of science degree in surveying and mapping is the only one of its kind in Colorado and the region. It prepares graduates for registration as professional land surveyors and for careers in other areas of surveying and mapping or for graduate study. Graduates are in professional-level positions with the Bureau of Land Management and other federal, state, and local government agencies, utilities, and private companies. Several have become officers of their societies (Professional Land Surveyors of Colorado and the Colorado Section of the American Congress on Surveying and Mapping). A relatively new employment area for graduates is in land information systems (storing information on land

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parcels, public utilities, natural resources, etc., in computer systems for recordkeeping and planning purposes).

For every CET and SUR course, a minimum grade of "C" is required before a student can progress.

**For Civil Engineering Technology, please see [CET](#).**

### Surveying and Mapping Major for Bachelor of Science

Required Technical Studies .....	Semester Hours
CET 1200 Technical Drawing I .....	3
GEG 4840 Remote Sensing .....	3
GEL 1010 General Geology .....	4
SUR 1510 Surveying I .....	4
SUR 2520 Surveying II .....	4
SUR 2530 Route Surveying .....	4
SUR 2550 Surveying Computations .....	3
SUR 2620 Survey Drafting - CAD .....	3
SUR 2700 Geodesy I .....	3
SUR 3100 Surveying Data Adjustment & Analysis I .....	3
SUR 3150 Astronomy for Surveyors .....	2
SUR 3300 Photogrammetry .....	3
SUR 3500 Map Projections and Coordinate Systems .....	3
SUR 3540 Boundary Law I .....	3
SUR 3660 Land Information Systems .....	3
SUR 4320 Geodetic Survey Methods .....	4
<i>Subtotal</i> .....	52

#### Additional Course Requirements

COM 2610 Introduction to Technical Writing .....	3
ENG 1010 Freshman Composition: The Essay .....	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation .....	3
MGT 3000 Organizational Management .....	3
MTH 1400 Precalculus Mathematics .....	4
PHY 2311 General Physics I .....	4
PHY 2321 General Physics Laboratory I .....	1
PHY 2331 General Physics II .....	4
PHY 2341 General Physics Laboratory II .....	1
SPE 1010 Public Speaking .....	3
Social/Behavioral Electives and Multicultural course .....	9
Arts and Letters Electives .....	6
<i>Subtotal</i> .....	44
Approved Technical Electives* .....	11

#### Required Math Minor

MTH 1410 Calculus I .....	4
MTH 1510 Computer Programming: FORTRAN .....	4
MTH 2140 Computational Matrix Algebra .....	2
MTH 2410 Calculus II .....	4
MTH 3210 Probability and Statistics .....	4
Approved Math Elective (upper division) .....	4
<i>Subtotal</i> .....	22
<i>Total</i> .....	129

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*\*At least one elective must be 3000 or 4000 level.*

### General Studies Requirements

The Level I mathematics requirements do not apply to the surveying and mapping program because it includes a math minor and SUR 3100.

### Minor in Surveying\*

Required Technical Studies .....	Semester Hours
SUR 1510 Surveying I .....	4
SUR 2520 Surveying II .....	4
SUR 2620 Survey Drafting - CAD .....	3
SUR 3150 Astronomy for Surveyors .....	2
SUR 3300 Photogrammetry .....	3
SUR 3500 Map Projections and Coordinate Systems .....	3
Technical Elective .....	3
<i>Total</i> .....	22

*\*Requirements for this minor may change. Check with a department advisor.*

## Technical Communications Department

The Technical Communications Department offers a B.A. degree in Technical Communications with four concentrations and a technical communications minor. The four concentrations are technical writing and editing, corporate communications, technical media and multimedia production. Each concentration offers training in one or more communications areas that are most in demand by industry and government. Technical writing and editing prepares an individual to write, edit, and publish the wide variety of reports, manuals, and other technical or lay publications produced by industry and government. The corporate communications concentration is designed for the person who desires to manage the flow of information within a company, government agency, or between industries and agencies. The technical media concentration meets two needs of industry and government: people prepared to design and implement internal training programs, and people seeking careers to provide technical information through visual media. The multimedia production concentration provides the student with the theory, production and programming practices used in business and industry.

The technical communications minor provides a general background in preparing technical information designed to meet the minimal needs of industry and government, with the opportunity to emphasize the area of most interest to the student. The minor is particularly useful to people majoring in scientific and technological disciplines as a means of expanding their employment skills.

The program welcomes students from the community and other areas of the college whose professional or academic work will benefit from one or more of the program offerings. Students enrolling in one of the major concentrations or the minor must confer with a program advisor because all degree plans are tailored to the career goals of the individual student.

Computerized document processing ability is required of all students majoring or minoring in the technical communications programs. Students can meet this requirement in one of three ways:

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- Students can provide documentary evidence of a previous satisfactory completion of an academic or industrial training course in computer literacy and document processing at the time they declare their major or minor.
- Students can enroll in an approved MSCD course in CMS or CSI in the semester following the declaration of their major or minor.
- Students can complete a skills test administered by the program during the semester they declare their major or minor.
- All students majoring in the technical communications program must participate in program assessment. See the department for details.
- An extended major within the Department is possible if a student fulfills all of the following conditions:
  - The student has completed an Associate of Arts, Associate of Applied Science or Associate of General Studies Degree from a community college
  - The associate degree earned by the student materially augments the concentration selected as a major in Technical Communications
  - The curriculum for the associates degree to be used is accepted by the Department
  - A 2+2 agreement is in place between the community college granting the degree and the Technical Communications Department.

To complete an extended major the student must fulfill all the requirements specified in any of the Technical Communications concentrations. In addition, the student must fulfill any general studies or multicultural requirements of the College. If an Associate of Arts, Associate of Applied Science or Associate of General Studies degree has not been awarded by a community college, the student cannot take an extended major.

### Technical Communications Major for Bachelor of Arts

All technical communications majors are required to complete the following basic core of courses.

Required Core .....	Semester Hours
COM 2720 Introduction to Communication Concepts and Systems .....	3
COM 3780 Communications Law .....	3
<i>Total</i> .....	6

### Technical Writing and Editing Concentration

This communications concentration provides the student with both the theory and production practices of technical writing and editing used by industry and government. It includes coursework in the writing, editing, design, and production of technical reports, proposals, and manuals in addition to professional experience and hands-on practice with computer hardware and software. The curriculum is designed to provide breadth of knowledge and multitask capability.

Technical Communications Core .....	6
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Required Concentration Courses* .....	Semester Hours
COM 2600 Basics of Technical Style** .....	3
COM 2610 Introduction to Technical Writing .....	3
COM 3530 Corporate Cultures .....	3
COM 3620 Technical Editing .....	3
COM 3630 Designing Technical Publications .....	3
COM 4790 Senior Seminar in Technical Communications .....	3
<i>Subtotal</i> .....	15-18

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*\*Upon declaring a major in the writing and editing concentrations, students will be required to demonstrate computer literacy by passing a test, documenting computer use or training on the job, or completing a course approved by the advisor.*

*\*\*Upon declaring a major in the writing and editing concentration, students will be required to take a test in the basics of technical style. Those who do not meet minimum standards must complete COM 2600. Those who do meet minimum standards are not required to take COM 2600 but may do so as an elective.*

### Electives

Eighteen to 21 hours of electives from the following and/or courses approved by the student's advisor that would specifically benefit the student's career goals, including:

COM 2430 Introduction to Technical Media .....	3
COM 2460 Presentation Graphics .....	3
COM 3310 International Technical Communications .....	3
COM 3330 Technical Writing for Translation .....	3
COM 3520 Communication of Power and Authority .....	3
COM 3550 Administration of Corporate Publications .....	3
COM 3560 Variable Topics in Corporate Communications .....	3
COM 3610 Advanced Technical Writing .....	3
COM 3640 Writing Computer-User Software Documentation .....	3
COM 3650 Writing Hardware Documentation .....	3
COM 3660 Variable Topics in Industrial and Technical Communications .....	3
COM 3670 Writing for the Environmental Industry .....	3
COM 4630 Costing and Planning Technical Publications .....	3
HMT 4730 Principles of Negotiation .....	3
MGT 2500 Small Business Management .....	3
MGT 3020 Fundamentals of Entrepreneurship .....	3
MKT 2040 Managerial Communications .....	3
<i>Subtotal</i> .....	18-21
<i>Total for Technical Writing and Editing Concentration</i> .....	42

### Corporate Communications Concentration

This communications concentration prepares the student for a career in managing the flow of information within and between technical and corporate communications networks and systems. It includes practical experience and a theoretical understanding of corporate communication, the culture that exists within corporations, and various methodologies for the dissemination of information within corporations and governmental agencies. The curriculum is designed to provide breadth of knowledge and multi-task capability.

Technical Communications Core .....6

Required Concentration Courses*	Semester Hours
COM 2600 Basics of Technical Style** .....	3
COM 2610 Introduction to Technical Writing .....	3
COM 3510 Corporate Communications .....	3
COM 3520 Communication of Power and Authority .....	3
COM 3530 Corporate Cultures .....	3
COM 3630 Designing Technical Publications .....	3
COM 4790* Senior Seminar in Technical Communications .....	3
<i>Subtotal</i> .....	21

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Plus 3 credits from the following:

COM 2430 Introduction to Technical Media .....	3
COM 2460 Presentation Graphics .....	3
COM 3310 International Technical Communications .....	3
COM 3330 Technical Writing for Translation .....	3
COM 3560 Variable Topics in Industrial Communicating .....	3
COM 3660 Variable Topics in Industrial and Technical Communications .....	3
COM 3670 Writing for the Environmental Industry .....	3
COM 4760 Advanced Internship in Technical Communications .....	3
<i>Subtotal</i> .....	3

*\*Upon declaring a major in the corporate concentration, students will be required to demonstrate computer literacy by passing a test, documenting computer use or training on the job or completing a course.*

*\*\*Upon declaring a major in the corporate concentration, students will be required to take a test in the basics of technical style. Those who do not meet minimum standards must complete COM 2600. Those who do meet minimum standards are not required to take COM 2600 but may do so as an elective; they must take an approved substitute.*

### Electives

Twelve hours of electives from any of the Technical Communications concentrations and/or courses approved by the student's advisor that would specifically benefit the student's career goals, including:

HMT 4730 Principles of Negotiation .....	3
MGT 3550 Manufacturing and Service Management .....	3
MGT 4610 Labor/Employee Relations .....	3
SOC 3160 Industry, Work and Occupations .....	3
<i>Subtotal</i> .....	12
<i>Total for Corporate Communications Concentration</i> .....	42

### Multimedia Production Concentration

This communication concentration provides the student with the theory, production and programming practices of multimedia production used in business and industry. It includes coursework in the the writing, editing, design, programming and production of multimedia projects in addition to professional experience and hands-on practice with computer hardware and software. The interdisciplinary, integrated curriculum is designed to provide breadth of knowledge and multitask capability.

Technical Communications Core .....	6
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Required Concentration Courses*	Semester Hours
COM 2450 Basic Multimedia Production .....	3
COM 3450 Intermediate Multimedia Production .....	3
COM 4450 Advanced Multimedia Production .....	3
CSS 1247 Introduction to Programming: Visual Basic .....	4
CSS 3707 Advanced Multimedia Programming .....	4
CMS 3060 File Design and Database Management .....	3
<i>Subtotal</i> .....	20

### Required Capstone Course

COM 4410 Budgeting and Planning for Audio-Visual Productions .....	3
<i>Subtotal</i> .....	3



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*\*Upon declaring a major in the multimedia concentration, students will be required to demonstrate computer literacy by passing a test, documenting computer use or training on the job or complete a course approved by the advisor.*

### Electives

Thirteen hours of electives from the following and/or courses approved by the student's advisor that would specifically benefit the student's career goals, including:

COM 2400 Basic Video Editing .....	3
COM 2420 Basic Corporate Videotape Production .....	3
COM 2430 Introduction to Technical Media .....	3
COM 2460 Presentation Graphics .....	3
COM 2480 Corporate Animation .....	3
COM 2610 Introduction to Technical Writing.....	3
COM 3310 International Technical Communications .....	3
COM 3350 International Technical Media .....	3
COM 3420 Intermediate Corporate Videotape Production .....	3
COM 3440 Corporate Scriptwriting for Film and Television .....	3
COM 3470 Writing for Multimedia .....	3
COM 3530 Corporate Cultures .....	3
COM 4420 Advanced Videotape Production .....	3
COM 4440 Advanced Corporate Scriptwriting .....	3
COM 4888 Workshop in Digital Video Editing .....	3
CMS 3230 Telecommunication Systems .....	3
CMS 4060 Advanced Database Systems .....	3
<i>Subtotal</i> .....	13
<i>Total for Multimedia Production Concentration</i> .....	42

### Technical Media Concentration

This communications concentration provides the student with the theoretical and practical experience required to design, write, and produce multi-image, multimedia, and videotape productions for nonbroadcast use in industry, government, and other large organizations. Such productions are frequently used for training, image creation, and technical information dissemination.

Technical Communications Core .....6

Required Concentration Courses .....Semester  
Hours

COM 2420 Basic Corporate Videotape Production .....	3
COM 2430 Introduction to Technical Media .....	3
COM 2450 Basic Multimedia Production .....	3
COM 3440 Corporate Scriptwriting for Film and Television .....	3
<i>Subtotal</i> .....	12

Plus 12 credits from the following:

COM 2460 Presentation Graphics .....	3
COM 3350 International Technical Media .....	3
COM 3420 Intermediate Videotape Production .....	3
COM 3450 Intermediate Multimedia Production .....	3
COM 3470 Writing for Multimedia .....	3
COM 4420 Advanced Videotape Production .....	3
COM 4440 Advanced Corporate Scriptwriting .....	3

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COM 4760 Advanced Internship in Technical Communications .....	1-6
COM 4888 Workshop .....	3
<i>Subtotal</i> .....	12

### General Electives in Technical Communications

Nine hours from courses not taken to fulfill hours in the concentration electives or choose from the following or other courses as approved by the student's advisor:

COM 2610 Introduction to Technical Writing .....	3
COM 3310 International Technical Communications .....	3
COM 3330 Technical Writing for Translation .....	3
COM 3510 Corporate Communication .....	3
COM 3520 Communication of Power and Authority .....	3
COM 3530 Corporate Cultures .....	3
COM 3560 Variable Topics in Industrial Communication .....	3
COM 3610 Advanced Technical Writing .....	3
COM 3620 Technical Editing .....	3
COM 3630 Designing Technical Publications .....	3
COM 3640 Writing Computer-User Software Documentation .....	3
COM 3650 Writing Hardware Documentation .....	3
COM 3660 Variable Topics in Technical Communication .....	3
COM 4630 Costing and Planning Technical Publications .....	3
COM 4760 Advanced Internship in Technical Communications .....	1-6
<i>Subtotal</i> .....	9

### Senior Experience Requirement

COM 4410 Budgeting and Planning for A-V

-or-

COM 4790 Senior Seminar ..... 3 |

*Subtotal* ..... 3 |

*Total* ..... 42 |

## Technical Communications Minor

The technical communications minor is designed to provide additional skills that will increase employability for the student majoring in a scientific or technological discipline. In addition to the required core courses, the student selects five courses that may be in one of the specialized areas or may be divided among the areas offered by the technical communications program to provide an overview of the discipline.

Each of the following courses:

COM 2430 Introduction to Technical Media .....	3
COM 2610 Introduction to Technical Writing .....	3
COM 2720 Introduction to Communication Concepts and Systems .....	3
<i>Subtotal</i> .....	9

Five of the following courses:

COM 2420 Basic Corporate Videotape Production .....	3
COM 2450 Basic Multimedia Production .....	3
COM 2460 Presentation Graphics .....	3
COM 3310 International Technical Communications .....	3
COM 3330 Technical Writing for Translation .....	3
COM 3420 Intermediate Corporate Videotape Production .....	3
COM 3440 Corporate Scriptwriting for Film and Television .....	3

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COM 3450 Intermediate Multimedia Production .....	3
COM 3470 Writing for Multimedia .....	3
COM 3510 Corporate Communication .....	3
COM 3520 Communication of Power and Authority .....	3
COM 3530 Corporate Cultures .....	3
COM 3560 Variable Topics in Industrial Communicating .....	3
COM 3610 Advanced Technical Writing .....	3
COM 3620 Technical Editing .....	3
COM 3630 Designing Technical Publications .....	3
COM 3640 Writing Computer-User Software Documentation .....	3
COM 3650 Writing Hardware Documentation .....	3
COM 3660 Variable Topics in Industrial Communications .....	3
COM 3780 Communications' Law .....	3
COM 4410 Budgeting and Planning for Audio-Visual Productions .....	3
COM 4420 Advanced Videotape Production .....	3
COM 4630 Costing and Planning Technical Publications .....	3
COM 4760 Advanced Internship in Technical Communications .....	3
COM 4790 Senior Seminar in Technical Communications .....	3
<i>Subtotal</i> .....	15
<i>Total</i> .....	24

## Certificate Programs Available

### INTERNATIONAL TECHNICAL WRITING

COM 3310 International Technical Communications .....	3
COM 3330 Technical Writing for Translation .....	3
COM 3630 Designing Technical Publications .....	3
COM 3660 Variable Topics in Industrial and Technical Communications .....	3
COM 4380 Communications' Law - Technological Media .....	3

For prerequisites, call Ms. Joy Yunker, 303-556-3364

### MULTIMEDIA PRODUCTION

COM 2400 Basic Video Editing .....	3
COM 2450 Basic Multimedia Production .....	3
COM 2480 Corporate Animation .....	3
COM 3450 Intermediate Multimedia Production .....	3
COM 3470 Writing for Multimedia .....	3

For more information, call Ms. Peggy O'Neill-Jones, 303-556-4821

### CORPORATE VIDEO PRODUCTION

COM 2400 Basic Video Editing .....	3
COM 2420 Basic Corporate Videotape Production .....	3
COM 480B Workshop in Digital Video Editing .....	3
COM 3440 Corporate Scriptwriting for Film and Television .....	3
COM 3420 Intermediate Corporate Videotape Production .....	3
COM 2430 Introduction to Technical Media .....	3

For prerequisites, call Mr. Robert Amend, 303-556-2674.

### TECHNICAL WRITING AND EDITING

COM 2610 Introduction to Technical Writing .....	3
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COM 3620 Technical Editing .....	3
COM 3630 Designing Technical Publications .....	3
COM 3780 Communications' Law .....	3
Choose one of the following	
COM 3640 Writing Computer-User Software Documentation .....	3
COM 3650 Writing Hardware Documentation .....	3
COM 3660 Variable Topics in Industrial and Technical Communications.....	3
COM 3670 Writing for the Environmental Industry .....	3

For prerequisites and more information, call Ms. Lori Allen, 303-556-4756.

## **Courses Descriptions**

This section of the *Catalog* includes course descriptions, listed alphabetically by discipline. The descriptions provide information on course numbers, titles, the level of instruction, credit, course sequence, content, and prerequisites as shown in the following example:

### **CHE 1100-5 Principles of Chemistry (4 + 2)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is a study of the fundamentals of chemistry including both theoretical and laboratory principles. A survey of atomic structure, periodicity, bonding, nomenclature, stoichiometry, gas laws, and solution chemistry is provided for those students with no background in these areas. (General Studies Course-Level II, Natural Science)

The first three to four letters, called the course subject code (Banner), represent the area of study or discipline, e.g., CHE represents chemistry. The course number follows the course subject code, e.g., 1100. The first digit in a four-digit course number designates the level of instruction. Only courses numbered 1000 or above will be included in credits toward a degree. Courses with numbers up to and including 1999 are primarily for freshmen, 2000 through 2999 primarily for sophomores, 3000 through 3999 primarily for juniors, and 4000 through 4999 primarily for seniors. In general, students should not take courses above the level of their class (based upon semester hours earned), but they may do so at one level above if they have the specified prerequisites. In special cases, students may be permitted to take courses more than one level above that designated for their class if they obtain the permission of their advisor and of the faculty member teaching the course and if they meet the prerequisite requirements.

Following each course number is the semester hours of credit. As an example, CHE 1100-5 is a freshman-level, five-credit course. After the course number and credit hours is the course title, which is followed by a second set of numbers in parentheses indicating the division of time between lecture, laboratory, field experience, or-in music-performance. The first number represents the number of lecture hours each week of a 15-16 week semester; the second number indicates the number of laboratory, shop, or field hours; and the third (in music) represents performance hours. For example, CHE 1100-5 Principles of Chemistry I (4 + 2) has four hours of lecture and two hours of laboratory each week. Lecture hours equate one hour per week of contact to one credit hour; laboratory experience equates

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two hours of contact per week to one credit hour. Therefore, CHE 1100-5 would earn five hours of credit-four for lecture and one for laboratory work.

Course descriptions provide a summary of the content of the course. If there is a prerequisite that must be met before a student can register for the course, this information is listed above the course description. A list of courses being offered in a given semester, instructors, class meeting times, and locations is published in the *Class Schedule*, which is printed before of the beginning of each semester and is available to all students.

## **Adaptive Self-Paced Learning**

Adaptive self-paced learning is a phrase used to describe classes in which students are allowed to proceed at a pace that is suited to their personal learning needs and learning style. Self-paced course are identified in the *Class Schedule* by the notation "SP". Information on the method of instruction is available in the department.

Students who do not complete the work of a self-paced course during a semester are give the notation of "NC" and must re-enroll in and pay for the course in a subsequent semester in order to continue in that course. A letter grade is awarded during the semester in which the work is completed satisfactorily.

## **Omnibus Courses**

Omnibus courses are courses offered on a temporary basis for several reasons: to meet student demand, to present recent developments in a field, to provide unique experiential learning opportunities or to present the opportunity to study a special topic that is not a regular part of the curriculum. Omnibus courses may be topics courses, special workshops, field experiences, practica or independent studies. Topics courses and workshops deal with novel subjects and current problems. Supervised field study and internships, conducted cooperatively with business, industry, government, and other agencies, provide practical on-the-job learning opportunities. Independent study courses allow students to investigate problems of special interest.

All academic departments of the college may offer omnibus courses; the following course numbers are the same for omnibus courses in all disciplines. When listed in class schedules, registration forms, and college records, the course number will carry the prefix of the discipline in which the course is offered. In addition to prerequisites listed under a course, other prerequisites appropriate to the study and departmental objectives may be added.

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No more than 30 semester hours earned in all courses numbered 1900, 2888, 2900, 2990, 3900, 3970, 4888, 4900, 4980, 4990 will be counted toward meeting degree requirements. ***This restriction does not apply to courses listed in this Catalog that use the words practicum, cooperative education, etc., and that have a number different from the numbers listed.***

A specific course plan for the omnibus courses which covers content and semester hours must be submitted by an instructor and approved by the chair of the department or discipline, the dean of the school, and the Office of Academic Affairs before such a course can be listed in the schedule of classes. These same approvals are required for plans of study that individual students submit for registration in a workshop course (when individualized) or an independent study course. A special form is required for an independent study course.

### **1900 Topics (credit variable)**

Prerequisite: permission of instructor

An introductory-level class to study selected topics especially appropriate for lower-division students.

### **2888 Workshop (credit variable)**

Prerequisite: approval of department

An introductory-level class of a concentrated nature. Involves independent and/or group appraisal and study of a special topic

### **2900 Sophomore-Level Advanced Topics (credit variable)**

Prerequisite: permission of instructor

An in-depth sophomore-level inquiry into selected problems.

### **3900 Junior-Level Advanced Topics (credit variable)**

Prerequisite: permission of instructor

An in-depth junior-level inquiry into selected problems.

### **4888 Advanced Workshop (credit variable)**

Prerequisite: approval of department

An advanced class of a concentrated nature, designed primarily for students majoring in a particular department or discipline. Involves independent and/or group appraisal and analysis of major problems within a particular area.

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### **4900 Senior-Level Advanced Topics or Seminar (credit variable)**

Prerequisite: permission of instructor

An in-depth senior-level study of a selected topic. Presentations, discussions, reports, and critiques of various problems within the discipline in which the course is offered may be involved.

### **4980 Independent Study (credit variable -- not to exceed six semester hours)**

Prerequisites: upper-division status and permission of the department chair

An independent investigation of a problem, a project, or other required activity supervised by a faculty member of the discipline. There is minimal associated faculty direction. A special form is required.

### **Field Experience/Internship/Practicum Courses**

Field experience or experiential education courses offer major instructional activities conducted outside the regular classroom. These courses incorporate actual experience with information assimilation and adhere to policies set forth by the Colorado Commission on Higher Education. Certain degree, certification, and licensure programs, such as teacher education or nursing, require experiential education courses as a part of the required coursework. Other departments offer experiential education courses for credit applicable to graduation requirements, generally as a part of the student's major or minor.

### **Guidelines for Field Experience/Internship/Practicum Courses:**

- Credit may vary from 1-15 hours, depending upon the instructional activity.
- Students are expected to meet the minimum base clock-hours established by CCHE policy, which requires two to three times the clock-hours established for regular classroom instruction.
- Approved cooperating agencies provide learning opportunities, prepare written statements of assignments, monitor students' performance, confer with the supervising faculty member, and provide a written evaluation.
- A minimum of one hour a week is spent in seminar and discussion or in conference with the adjunct faculty at the field experience locale and/or in conference with the supervising faculty member.
- The supervising faculty member evaluates the student's performance and, in consultation with the adjunct faculty member, assigns the grade for the course according to grading policies stated in this *Catalog*.



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- Omnibus courses (2990, 3970, 4980, 4990) emphasizing field experiences are subject to guidelines established for regular field-based courses, as well as omnibus course guidelines, and must be approved by the Office of Academic Affairs.

### **2990 Field Experience/Internship (credit variable)**

Prerequisite: sophomore status, permission of instructor

A work-oriented training period of actual service in an agency, institution, or technical/business establishment that provides an in-depth learning experience for the student under the direct supervision of an on-site supervisor and under the scrutiny and guidance of a faculty member (i.e., cooperative education).

### **3970 Practicum (credit variable)**

Prerequisites: sophomore status, permission of instructor

A class that involves apprenticeship in the practical application of previously studied theory under the observance and supervision of a skilled practitioner and faculty member (i.e., practicum in reading). CCHE definition: Work-oriented instruction involving the implementation of classroom or laboratory experience under the direct supervision of a faculty member.

### **4990 Advanced Field Experience/ Internship (credit variable)**

Prerequisite: permission of instructor

An advanced-level, supervised, in-service field or laboratory experience in an area related to the student's major, conducted by an affiliated organization in cooperation with the department/discipline in which the student is majoring.

## **Cooperative Education (credit variable)**

Courses are subject to guidelines established for regular field experience courses, as well as cooperative education guidelines. No more than 15 semester hours of cooperative education credit will be applied toward degree requirements.

### **2980-1-3 Cooperative Education (credit variable)**

Prerequisites: sophomore status and permission of instructor

An entry-level work experience in a private company or agency of the federal or state government related to the student's major and supervised by a competent professional on the worksite. Credit is awarded by a MSCD faculty member in the appropriate academic department for learning related to academic goals enumerated in the learning contract of each student.

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### **3980-1-12 Cooperative Education (credit variable)**

Prerequisites: junior status and permission of instructor

An advanced work experience in a private company or governmental agency related to student's major and supervised by a competent professional on the worksite. Credit is awarded by a MSCD faculty member in the appropriate academic department for learning related academic goals enumerated in the learning contract of each student. For more information on the program and placement opportunities in an academic major contact the Cooperative Education and Internship Center office at 303-556-3290.

## **African American Studies**

### **AAS 1010-3 Introduction to African American Studies (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

A survey of African American studies—the many facets of the black experience in this country and the discipline of African American studies. Emphasizes the black perspective. (General Studies—Level II, Social Sciences; Multicultural)

### **AAS 1080-3 Readings in African American Studies (3 + 0)**

A self-paced course based on selected readings in books, magazines, and newspapers on African American studies.

### **AAS 1130-3**

#### **(HIS 1940) Survey of African History (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

Surveys the major developments on the African continent from ancient times to the modern period. Focuses on political and cultural developments in African civilizations from ancient Egypt to the present. Credit will be granted for only one prefix: AAS or HIS. (General Studies—Level II, Historical; Multicultural)

### **AAS 2000-3**

#### **(SOC 2000) Social Movements and the Black Experience (3 + 0)**

Prerequisite: AAS 1010, SOC 1010, or permission of instructor

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Analyzes and interprets the nature, cause, and consequence of black social movements in the United States, ranging from the slave period to the present. Particular attention is given to the civil rights movement of the 1950s and 1960s. Credit will be granted for only one prefix: AAS or SOC.

### **AAS 2100-3**

#### **(CHS 2100, ICS 2100, NAS 2100, WMS 2100) Women of Color (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment tests; one of the following: AAS 1010, CHS 1000, ICS 1000, NAS 1000, or WMS 1001; or permission of instructor

Though U.S. women share much in common, their differences are salient to a thorough understanding of all these women's experiences. Comparative analysis of these differences and their significance according to race, class, and ethnicity are central to this course. The similarities among diverse groups of women will also be examined in order to better understand the complexity of women's lives. To focus the discussion, the course will cover work; families; sexuality and reproduction; religion; and politics. Credit will be granted for only one prefix: AAS or CHS or ICS or NAS or WMS. (General Studies—Level II, Social Sciences; Multicultural)

### **AAS 2130-3**

#### **(HIS 2950) West African Civilizations (3 + 0)**

Prerequisites: satisfaction of ENG 1010 and the General Studies Level I Communication requirement

Surveys histories and cultures of West Africa from A.D. 1000 to the modern period. Focuses on political, cultural, and economic developments among West African peoples and states. Credit will be granted for only one prefix: AAS or HIS. (General Studies—Level II, Historical; Multicultural)

### **AAS 2200-3**

#### **(PSC 2200) Politics and Black People (3 + 0)**

Prerequisites: satisfaction of General Studies Level I Mathematics requirement and either ENG 1010 or the Level I Communication course requirement

Examines black politics as a vehicle for positive change for black people in this country. Realities and the challenges, both historical and current, are

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emphasized. This course may be taken only under one prefix: AAS or PSC. Credit will be granted for only one prefix: AAS or PSC. (General Studies—Level II, Social Sciences; Multicultural)

**AAS 2300-3****(ANT 2350) African Peoples and Cultures (3 + 0)**

Examines traditional cultures of African peoples. Gives added understanding of culture and people in relation to human problems and experiences. Credit will be granted for only one prefix: AAS or ANT.

**AAS 3000-3****(HIS 3023) History of Egypt (3 + 0)**

Prerequisite: sophomore standing or permission of instructor

This course explores and examines major developments in the history of Egypt from the Pharaonic period to the modern era. Political, religious, economic and cultural elements are highlighted.

**AAS 3130-3 Readings in African History (3 + 0)**

Prerequisite: AAS 1130 or permission of instructor

Provides the opportunity for students to explore important writings in a selected subject area of African history. Students advance their knowledge of the materials and information related to the field of African history.

**AAS 3240-3****(ENG 3240) African American Literature (3 + 0)**

Prerequisites: six semester hours of English above 1020 or permission of instructor, and satisfaction of Level I General Studies course requirements

Studies literature by black Americans. Considers works in the context of the historical and social conditions of the time at which they were written. Credit will be granted for only one prefix: AAS or ENG. Suitable for non-English majors. (General Studies—Level II, Arts and Letters; Multicultural)

**AAS 3300-3****(SOC 3140) The Black Community (3 + 0)**

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Prerequisites: AAS 1010 or AAS/SOC 2000, or permission of instructor, and satisfaction of Level I General Studies course requirements

Relates fundamental concepts and theories of sociology and African American studies to the study of the black community through an analysis of the educational, political, religious, economic, and family dimensions. Emphasizes local, national, and international black communities. Classic and contemporary black community studies are examined. Credit will be granted for only one prefix: AAS or SOC. (General Studies—Level II, Social Sciences; Multicultural)

### **AAS 3400-3**

#### **(PSC 3400) Contemporary Africa (3 + 0)**

Focuses on the political, social, and economic highlights of post-independence Africa. Africa's relations with the outside world and the question of South Africa are also examined. Credit will be granted for only one prefix: AAS or PSC.

### **AAS 3550-3**

#### **(SOC 3440) The Black Family (3 + 0)**

Prerequisites: AAS 1010 or SOC 1010, and satisfaction of Level I General Studies course requirements

Provides an in-depth exploration of the black family as a social institution. Emphasizes the historical roots of the black family and how the African influence is enmeshed in the functioning of the family in modern society. Examines the factors responsible for the ability of the black family to meet the challenge of a changing society. Credit will be granted for only one prefix: AAS or SOC. (General Studies—Level II, Social Sciences)

### **AAS 3570-3**

#### **(HIS 3570) African American History I (3 + 0)**

Prerequisites: HIS 1210, HIS 1220, or permission of instructor

Moving from the background of African culture and the slave trade, this course traces the distinctive role of the people of African heritage in the U.S. to 1876. Credit will be granted for only one prefix: AAS or HIS.

### **AAS 3580-3**

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**(HIS 3580) African American History II (3 + 0)**

Prerequisites: HIS 1210, HIS 1220, or permission of instructor

Continues a study of the role of the people of African heritage in the U.S. from 1876 to the present. Emphasizes an understanding of the historical tradition that gives rise to current dilemmas facing America. Credit will be granted for only one prefix: AAS or HIS.

**AAS 3700-3**

**(PSY 3700) Psychology of Racism and Prejudice (3 + 0)**

Prerequisites: PSY 1001, AAS 1010, and three hours of course work at the 2000-level or above in AAS, CHS, ICS, NAS, PSY, or WMS; or permission of instructor

Examines the origins, nature, and transmission of prejudice from a psychological perspective. Topics include racism, sexism, classism, and homophobia. Theoretical orientations, research, and perspectives on change are addressed. Credit will be granted for only one prefix: AAS or PSY.

**AAS 3910-3**

**(PSC 3910) African Politics and Government (3 + 0)**

Prerequisites: AAS 1130, AAS 2300, or permission of instructor

Surveys present-day political systems in Africa and examines internal and external factors that have contributed to their emergence. Credit will be granted for only one prefix: AAS or PSC.

**AAS 4400-3**

**(PSC 4400) South African Politics (3 + 0)**

Prerequisites: AAS 1130, AAS 3910, or permission of instructor

Presents an in-depth study of the South African political system and its historical development and contemporary operation. Credit will be granted for only one prefix: AAS or PSC.

**AAS 4490-3 Contemporary Issues in African American Studies (3 + 0)**

Prerequisites: junior or senior standing and AAS 1010

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Provides an in-depth study of selected issues that significantly impact the black people in the U.S. Topics vary and the course may be repeated for credit with the permission of the department chair.

### **AAS 4850-3 Research Seminar in African American Studies (3 + 0)**

Prerequisite: six hours of upper-division courses in African American studies

Provides the opportunity for refining research skills. Students participate in planned seminar sessions and conduct in-depth research on selected topics under close supervision of a faculty member. (Senior Experience)

## **Accounting**

### **ACC 1010-3 Accounting for Non-Business Majors (3 + 0)**

Prerequisites: minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

This course is designed for non-business majors who need a basic understanding of accounting information. The course is designed to communicate an understanding of what accounting information is, what it means, how it is used, and its limitations. The course surveys both financial and managerial accounting with an emphasis on using accounting information for decision making and problem solving. Business majors cannot use this course to fulfill the School of Business accounting requirement. (General Studies—Level II, Social Sciences)

### **ACC 2010-3 Principles of Accounting I (3 + 0)**

Prerequisite: successful completion of a college-level mathematics course

This course introduces the business student to the role of accounting in society and economic decision making. The course focuses on financial accounting and reporting as tools to aid external decision making, financial analysis and interpretation. Topics covered include: conceptual foundations and principles underlying financial statements; accounting systems overview; analysis and interpretation of financing, investing and operating activities; and attestation.

### **ACC 2020-3 Principles of Accounting II (3 + 0)**

Prerequisite: ACC 2010

This course is a continuation of ACC 2010. The course focuses on managerial accounting and cost management as tools to aid internal decision making,

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planning and control. Topics covered include: accounting and management decisions; traditional and activity-based costing systems; planning and control systems; managerial accounting in a global environment; and current approaches including ABM, JIT, value chain, target costing, continuous improvement and quality management.

**ACC 3090-3 Income Tax I (3 + 0)**

Prerequisite: ACC 1010 or 2010

A study of federal income tax laws with an emphasis on personal income taxation, including such topics as gross income, gains and losses and deductions.

**ACC 3100-3 Income Tax II (3 + 0)**

Prerequisite: ACC 2020 and 3090

Continuation of ACC 3090 with a comparative focus on the taxation of organizational tax entities, including partnerships, corporations and S-corporations.

**ACC 3110-3 Volunteer Income Tax Assistance (VITA) (3 + 0)**

Prerequisite: ACC 3090

Students will have primary responsibility for operating a VITA site as a tax service. Students will prepare both federal and State of Colorado income tax returns. The focus will be on preparing returns for the elderly, disabled, foreign students and low income individuals.

**ACC 3200-3 Governmental Accounting (3 + 0)**

Prerequisite: ACC 2020

The study of generally accepted accounting principles and financial reporting used by state and local governmental units. This includes achieving an understanding of fund accounting and inclusion of budgets within the accounting systems. Also a study of accounting and financial reporting of colleges, hospitals, voluntary health and welfare organizations and other not-for-profit institutions is included.

**ACC 3300-3 Introduction to Accounting Systems (3 + 0)**

Prerequisites: ACC 2020 and CMS 2010



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Analysis of principles and types of tools available for the design and implementation of accounting systems. Use of case studies and various media to illustrate the manual and computer-related accounting system problems arising in various organizations and situations.

**ACC 3400-3 Cost Accounting (3 + 0)**

Prerequisites: ACC 2020, MTH 1310

This course includes coverage of cost-volume-profit relationships, job order and process costing systems, budgeting and budget variance analysis, cost prediction and management decision-making inservice, sales and manufacturing organizations.

**ACC 3410-3 Cost Accounting II (3 + 0)**

Prerequisites: ACC 3400, CMS 2010, and CMS 2300

This course applies cost accounting concepts and procedures to particular business decisions. Topics covered include cost allocation, joint product cost and by-product cost, process costing, capital budgeting techniques, variance analysis, inventory management and transfer pricing. Computer applications are an integral part of the course.

**ACC 3510-3 Intermediate Accounting I (3 + 0)**

Prerequisite: ACC 2020

This is the first course in Intermediate Accounting. The Intermediate Accounting courses are designed to teach the concepts and procedures underlying the measurement and reporting of financial information.

**ACC 3520-3 Intermediate Accounting II (3 + 0)**

Prerequisite: a grade of "C" or better in ACC 3510

Continuation of ACC 3510. In-depth study of basic accounting principles with an emphasis on stockholders' equity and special problems.

**ACC 3650-2 Electronic spreadsheets on the Microcomputer (2 + 0)**

Prerequisite: FIN 3300

This course teaches the student how to create and use electronic spreadsheets (Lotus 1-2-3) on the microcomputer.

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### **ACC 4090-3 Tax Procedure and Research (3 + 0)**

Prerequisite: ACC 3090

An in-depth study of procedures in effective tax research as applied to specific problems of taxpayers.

### **ACC 4100-3 Tax Planning (3 + 0)**

Prerequisite: ACC 3100

A portion of this course is devoted to the federal estate and gift tax laws with emphasis placed upon the accountant's role in estate planning. The remainder is devoted to the various planning techniques that can often be utilized to reduce an individual's personal income taxes.

### **ACC 4200-3 Auditing (3 + 0)**

Prerequisite: ACC 3510, ACC 3520

This course includes the study of professional ethics; legal liability; audit objectives; procedures and documentation; and auditors' reports.

### **ACC 4300-3 Advanced Auditing (3 + 0)**

Prerequisite: ACC 4200

This course is a continuing study of the underlying theory of auditing, with a concentration on professionalism, auditing standards and procedures, the public accounting environment, and internal auditing. The course includes special emphasis on current developments in auditing.

### **ACC 4510-3 Advanced Accounting (3 + 0)**

Prerequisite: ACC 3520

This course includes coverage of reporting requirements of partnerships, SEC-regulated companies, not-for-profit organizations, and financially distressed entities, as well as disaggregated information disclosure requirements and international harmonization of accounting standards.

### **ACC 4520-3 Mergers and Acquisitions (3 + 0)**

Prerequisite: ACC 3520 or FIN 4500

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This course is a comprehensive study of mergers and acquisitions focusing on the preparation of consolidated financial statements. International accounting topics include accounting for foreign currency transactions and hedging transactions, foreign operations disclosure requirements, translation of foreign currency financial statements and consolidation of investments in foreign subsidiaries.

## **Aerospace Science**

### **AES 1100-6 Aviation Fundamentals (6 + 0)**

Corequisites: AES 1710 and AES 1400 (recommended)

Fundamentals of aviation for the beginning student. Includes a study of the airplane and its components, aerodynamics, basic aircraft systems, the airport environment, air-traffic control procedures, Federal Aviation Regulations, the basic elements of air navigation (including radio navigation), and a review of aviation weather. Prepares the student for the Federal Aviation Administration (FAA) Private Pilot Knowledge examination.

### **AES 1400-3 Aviation Weather (3 + 0)**

Corequisite: AES 1100 or permission of instructor

This course develops basic meteorological concepts that apply to aviation. Emphasis is on the use of National Weather Service reports and forecasts to evaluate flight conditions. The course also prepares students for the weather section of the FAA Private Pilot Knowledge examination.

### **AES 1500-1 Private Flight (0 + 2)**

Prerequisites: permission of instructor

This course is designed to enable a student to obtain an FAA Private Pilot Certificate at an FAR Part 141 Flight School with whom The Metropolitan State College of Denver has an agreement for flight training. A minimum of 35 hours of flight time is required. Course credit is contingent on the student obtaining the FAA Private Pilot Certificate.

### **AES 1710-3 Single-Engine Flight Simulation I (2 + 2)**

Corequisite: AES 1100 (recommended)

Basic flight instruments, radio navigation, aviation weather, aircraft performance (including weight and balance), crew coordination, and decision making are studied. The fundamentals of instrument attitude flight

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(scanning, interpreting, and controlling) are learned in the flight simulator. Radio navigation is introduced, including VOR, DME, ADF, and transponder operation.

**AES 1760-3 Single-Engine Flight Simulation II (2 + 2)**

Prerequisite: AES 1710, or Private Pilot Certificate, or permission of the instructor

Reviews attitude instrument flight and radio navigation with wind correction. VFR cross-country flights are planned and flown using VOR, DME, ADF, and localizer nav aids. Flight planning includes the use of weather data and performance and loading data for complex, single-engine airplanes. Introduces holding patterns and VOR/NDB approaches. Emphasizes crew coordination and decision making.

**AES 1800-6 Commercial/Instrument Ground (6 + 0)**

Prerequisites: AES 1100, AES 1400, or permission of instructor

Studies aeronautics, regulations, meteorology, and instrument procedures in preparation for the FAA commercial and instrument knowledge exams.

**AES 2050-3 Aviation History and Future Development (3 + 0)**

AES 2050 treats the growth and development of aviation from the era of myth and legend through lighter-than-air and gliders to the modern jets and the space age. The effect of wars and the invention of internal combustion and turbojet engines are studied as they contributed to aviation progress. The course discusses significant personnel, flights, and aircraft in tracing the advancement of general, commercial, and military aviation. It includes future developments in the aviation and space fields.

**AES 2100-3 Fundamentals of Aviation and Technology (3 + 0)**

An introductory survey course for non-aerospace science majors. Course will include such topics as aeronautics, meteorology, navigation, rules of flight, high-speed aerodynamics, physiology of flight, human beings in space, history of aviation, and career opportunities.

**AES 2150-3 Avionics for Aviators (3 + 0)**

Prerequisites: AES 1100, MTH 1310, PHY 1250

Provides a working knowledge of basic electrical circuits, COMM, VOR/LOC, MKR, BCN, ILS/GLD, SLP, DME, XPNDR/MODE C, radar, Loran C, antennas,

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and ELTS. Applies a user's systems-management approach, with emphasis on safety and precautions.

**AES 2200-3 Fundamentals of Air Traffic Control (2 + 2)**

Prerequisite: AES 1800 or permission of instructor

This course is an introduction to air traffic services, procedures, communications, recordkeeping, regulations, emergencies, and air space constructions.

**AES 2220-3 Flight Dispatcher/Load Planning (3 + 0)**

Prerequisite: AES 1100

Prepares the student to work as a dispatcher for an airline. Regulations required for operations are a vital area of the course. Covers methods of decision making, safety, and weather conditions relating to dispatch decisions.

**AES 2330-3 Precision Flight and Navigation (2 + 2)**

Prerequisite: AES 1100 or Private Pilot Certificate

The first Flight Team course prepares the student for participation in the National Intercollegiate Flying Association regional and national flying meets. Flight and ground event accuracy and time events are learned. Required for students who are new members of the MSCD Precision Flight Team.

**AES 2500-1 Instrument Flight (0 + 2)**

Prerequisite: AES 1500 or permission of instructor

This course consists of the flight training required to prepare for the FAA Instrument Rating. The flight training must be completed at an FAR Part 141 Flight School with whom The Metropolitan State College of Denver has an agreement for flight training. The instrument rating is required for course completion.

**AES 2710-3 Instrument Flight Simulation I (2 + 2)**

Prerequisite: Private Pilot Certificate or permission of instructor

IFR cross-country flights are planned and flown in the simulator, using radio navigation fundamentals. Flights include ATC clearances, radio aids for determining position, holding patterns, and approaches.

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### **AES 2750-3 Instrument Flight Simulation II (2 + 2)**

Prerequisites: AES 1800, AES 2710, or permission of instructor

A continuation of AES 2710, introducing more complex flight planning, clearances, en route flight, and approaches. Includes in-flight route changes and missed approaches.

### **AES 3000-3 Aircraft Systems and Propulsion (3 + 0)**

Prerequisites: AES 1100 or FAA Private Pilot Certificate, and PHY 1250 or permission of instructor

Introduces aircraft nomenclature, design, features, systems, and their components. Covers the theory, components, instrumentation, and operation of internal combustion and turbojet engines, as well as fuel, electrical, hydraulic, and pneumatic aircraft systems.

### **AES 3220-3 Aviation Law and Risk Management (3 + 0)**

Prerequisite: AES 1100 or permission of instructor

The course goal is to provide middle managers with an understanding of liability problems and aviation insurance coverage. FBO, manufacturer, and operator liability cases are reviewed. An overview of fundamental aviation law, insurance risks, and contract terminology necessary to understand aviation binders is included.

### **AES 3230-3 Airline Management (3 + 0)**

Prerequisites: junior or senior standing, or permission of instructor

This course consists of studies in airline management pertaining to an integration of the economic characteristics of airlines into marketing and scheduling decisions; current airline relationships between management and the unions; airline pricing and demand decisions; and airline financing problems and solutions. Specific functions of all aspects of airline management are considered. The emphasis will be on current airline activities and issues that prepare the student to solve problems through critical thinking skills.

### **AES 3240-3 Airline Planning (3 + 0)**

Prerequisite: junior or senior standing

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This course consists of studies in the integration of local air transportation with the National Air Transportation System; forecasts of growth in the airline industry; interfaces with differing sectors of the air carrier industry; airport ground facilities and equipment needs; terminal area airspace problems; and equipment and financial considerations. The emphasis will be on CURRENT activities and issues that prepare the student for necessary critical thinking skills and employment.

### **AES 3330-2 Intermediate Precision Flight and Navigation (2 + 1)**

Prerequisite: AES 2330

The second Flight Team course is a continuation of AES 2330, further preparing the students for participation in the National Intercollegiate Flying Association regional and national flying meets. Flight and ground event accuracy and timed events are practiced with emphasis on speed as well as accuracy. Required for students who are second semester members of the MSCD Precision Flight Team.

### **AES 3340-1 Advanced Precision Flight and Navigation (1 + 1)**

Prerequisite: AES 3330

The third Flight Team course is a continuation of AES 3330, further preparing the student for participation in the National Intercollegiate Association regional and national flying meets. Flight and ground event accuracy and timed events are practiced with emphasis on speed as well as accuracy. Students at this level will help teach newer team members. Required for students who are third semester members of the MSCD Precision Flight Team.

### **AES 3460-3 Weather for Aircrews (3 + 0)**

Prerequisite: junior standing or permission of instructor

This course builds upon the basic aviation weather knowledge required of pilots with particular emphasis on those aspects of weather affecting advanced flight operations. Stability and turbulence, clear-air turbulence, icing, jet stream weather and the use of airborne radar are considered. Weather related aircraft accident reports with analysis of the influence of the weather factors involved are reviewed in detail. Students will develop the ability to project their knowledge of weather to conditions at airports in unfamiliar locations.

### **AES 3520-1 Commercial Flight (0 + 2)**

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This course consists of the flight training required to prepare for the FAA Commercial Pilot Certificate. The flight training must be completed at an FAR Part 141 Flight School with whom The Metropolitan State College of Denver has an agreement for flight training. The Commercial Pilot Certificate is required for course completion.

### **AES 3530-3 Aerodynamics (3 + 0)**

Prerequisites: AES 3000, PHY 1250

Studies basic principles of aerodynamics, including airfoil shapes and aerodynamic forces, airplane performance, stability and control, strength limitations, and the application to specific flight situations. Included are flight performance with air flow in sub-, trans-, and supersonic envelopes.

### **AES 3550-3 FAA Instructor Certification—Ground (3 + 0)**

Prerequisites: AES 1800 and FAA commercial/instrument certificate, or permission of instructor

Prepares the student for taking the following FAA knowledge tests: Fundamentals of Instruction (FOI), Flight Instructor—Airplane (single and multiengine), Ground Instructor—Basic and Advanced. Emphasizes the practical aspects of flight instruction.

### **AES 3570-2 Ground Instructor Practicum (0 + 4)**

Prerequisite: FAA Commercial/Instrument Certificate, CFI or Advanced or Instrument Ground Instructor Certificate, or permission of instructor

This course provides students practice as aviation instructors in advanced single-engine flight simulators. It covers all aspects of flight planning and preparation, setup of simulators, cockpit management, and IFR and VFR flight procedures, and navigation.

### **AES 3710-3 MultiEngine Flight Simulation I (1 + 4)**

Prerequisite: FAA Commercial Certificate with Instrument Rating or permission of instructor

Introduces multiengine aircraft operations, such as IFR cross-country flight. Introduces complex weight and balance computations and use of performance charts. Normal and emergency procedures are studied in the twin-engine simulator. Aeronautical decision making and cockpit resource management are developed.



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### **AES 3850-3 Human Factors and Physiology of Flight (3 + 0)**

Prerequisite: junior standing or permission of instructor

Studies human factors and physiological effects and problems of flight from the standpoint of general aviation, as well as more advanced space flight.

### **AES 3870-3 Aircraft Accident Investigation (3 + 0)**

Prerequisites: junior or senior standing or permission of instructor, AES 3000

This course examines techniques and procedures for investigating aircraft accidents/incidents and report writing. Areas of emphasis are operations, air traffic control, meteorology, witnesses, human factors, cockpit voice recorder, structures, power plants, systems, performance, maintenance records and flight data recorder.

### **AES 4040-3 Aircraft Performance (3 + 0)**

Prerequisites: AES 1100, PHY 1250, junior standing

Examines performance of jet- and propeller-powered aircraft. Flight profiles are studied, with emphasis on aircraft capabilities, limitations, and determination of speeds, power, or thrust settings for various conditions of flight. Weight and balance performance charts are reviewed.

### **AES 4100-3 Advanced Air Traffic Control (1 + 2)**

Prerequisite: AES 2200 or permission of instructor

Introduces advanced ATC radar topics, with emphasis on hands-on application in the simulator lab. Covers aircraft separation; identification and speed control; flight progress strip usage; emergency procedures; and the elements necessary for the safe operation of the ATC system.

### **AES 4130-4 Flight Engineer Duties and Responsibilities (4 + 0)**

Prerequisites: junior or senior standing, AES 3000, 3530, 4040, and the FAA Commercial Certificate with Instrument Rating

Corequisite: AES 4140

This course gives flight engineer candidates an operational knowledge of DC-10 operating procedures including external and internal preflight, engine start and in-flight procedures. It also provides instruction in irregular and

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emergency procedures, and in-flight engineer duties and responsibilities as set forth in FAR part 121.

**AES 4140-4 DC-10 Systems (4 + 0)**

Prerequisites: junior or senior standing, AES 3000, AES 3530, AES 4040 and the FAA Commercial Certificate and Instrument Ratings

Corequisites: AES 3530, AES 4040, AES 4130

The course gives flight engineer candidates an operational knowledge of the various DC-10 systems. This includes power plant, fuel, electrical, hydraulic, pneumatic, air conditioning pressurization, avionics, instruments, flight controls, fire protection, and ice and rain protection.

**AES 4150-2 Transport Category Aircraft Systems (1 + 2)**

Prerequisite: senior standing, AES 4130, AES 4140, and the FAA Commercial Certification with Instrument Rating

The course applies the theory learned in AES 4130 and AES 4140. A selected transport category aircraft will be studied in depth using CD-ROM training materials. Students will learn in detail the workings of various systems of the aircraft and study the procedures in normal and emergency flight operations.

**AES 4200-3 Airport Planning (3 + 0)**

Prerequisites: junior standing or permission of instructor

Exposes students to the dynamics of a planning process. This process includes data gathering, data analysis, site selection, airport layout, and airport financing. The problems of noise and air pollution are addressed in depth.

**AES 4210-3 Airport Management (3 + 0)**

Prerequisites: junior standing; AES 4200; or permission of instructor

Studies the modern airport and the factors involved in its management. Various management functions of administration, finance, capital finance, operation, maintenance, and public relations are analyzed.

**AES 4230-3 General and Business Aviation Operations (3 + 0)**

Prerequisite: senior standing or permission of instructor

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This course is a study of the general aviation service industry (fixed-base operators and specialized aviation service operators). The course includes lectures on the history and evolution of the general aviation service industry, management functions, marketing, finance, human resources, operations and safety.

### **AES 4240-3 Air Cargo (3 + 0)**

Prerequisite: junior or senior standing

An overview of the air cargo industry, including the history of development; air shipment economics; review of legislation and regulatory agency trends; cargo aircraft now in use; air freight forwarding; and current air-freight terminal operations problems.

### **AES 4250-3 Formulation of National Aviation Policy (3 + 0)**

Prerequisite: Student must be an aerospace science major with junior or senior standing and will be preapproved by the department for enrollment in the course. The preapproval process includes submitting an application to the department by September 30 before the spring semester in which he/she wants to enroll.

Students taking this course will be required to attend the University Aviation Association's annual seminar held in January in Washington, D.C. before the start of the spring semester and to participate in six pre-trip meetings in the fall semester prior to the seminar. At this seminar, students and faculty from member institutions will meet to discuss current national aviation issues and investigate the politics and ongoing governmental processes established to deal with these issues. The focus of the pre-trip meetings will be a study of the aviation issues to be evaluated and the background needed to understand the politics involved. While at the seminar, students will be required to interview key aviation and government officials, gather data, and learn about the policy making process. During the spring semester, each participant will prepare a comprehensive research paper as a final project to demonstrate the lessons learned.

### **AES 4370-3 Advanced Navigation Systems (3 + 0)**

Prerequisite: permission of instructor

This course is a follow-up to the navigation portion of AES 1100. It reviews geographic coordinate systems and aircraft position determination, and further develops navigation systems available to modern aviation. A survey study is conducted of all long-range navigation systems to include LORAN, OMEGA/VLF, INS and GPS. Finally, electronic instrumentation, navigation,

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and flight management systems are discussed, followed by a computer flight management practicum.

**AES 4500-1 Flight Multi-Engine (1 + 1)**

Prerequisites: AES 3520 or FAA Commercial Pilot Certificate or permission of instructor

This course covers multiengine aircraft operations. A minimum of 10 hours of dual flight time is required. The FAA multiengine rating must be received to obtain credit for this course.

**AES 4510-1 Flight Instructor (1 + 1)**

Prerequisites: AES 2710, AES 3520, AES 3710, second-class FAA medical certificate

Provides the basic aeronautical knowledge and experience necessary for the flight instructor certificate. Fifteen hours of dual flight time is required, and the flight instructor certificate must be obtained to receive credit for this course. The flight training must be completed at a flight school with whom the college has an agreement for flight training.

**AES 4520-1 Flight Instructor-Instrument (1 + 1)**

Prerequisites: AES 3520, second-class FAA medical certificate

This course provides the basic aeronautical knowledge and experience that the instrument flight instructor must have. Ten hours of dual flight time is required and the FAA rating must be obtained to receive course credit. The flight training must be completed at a flight school with whom the college has an agreement for flight training.

**AES 4530-1 Flight Instructor-Multi-Engine (1 + 1)**

Prerequisites: AES 3520, second-class FAA medical certificate

This course provides the basic aeronautical knowledge and experience relative to multiengine flight instruction that the prospective multiengine flight instructor must have. Fifteen hours of dual flight time is required. The FAA rating must be obtained to receive course credit. The flight training must be completed at a flight school with whom the college has an agreement for flight training.

**AES 4550-1 Flight Helicopter (1 + 1)**

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Prerequisites: AES 3520, permission of instructor, second-class FAA medical certificate

Studies include helicopter systems, aerodynamics, flight characteristics, and helicopter operations. The FAA rating must be obtained to receive course credit. The flight training must be completed at a flight school with whom the college has an agreement for flight training.

### **AES 4570-1 Airline Transport Pilot (1 + 2)**

Prerequisites: AES 3520, first-class medical eligibility as required in FAA regulations (part 61.151), permission of instructor

Completion of credit for this course requires 1,500 hours of flight time, 500 of which is cross-country, 100 is night flying, and 75 is instrument flight. Course involves knowledge of navigation, weather, FARs, radio communications, and weight distribution on aircraft and loading.

### **AES 4580-4 Turbojet Flight Engineer or Type Rating (2 + 4)**

Prerequisites: FAA Flight Engineer Knowledge examination and/or permission of instructor

This course is for the student with access to type rating or flight engineer training, such as at an airline, and consists of ground school for B-727, DC-8, or other turbojet airplanes. Approximately 15 hours of second officer or "type" training and a flight check in the airplane or an FAA-approved simulator will be completed at a facility external to the college.

### **AES 4590-2 Flight Instructor Practicum (0 + 4)**

Prerequisites: AES 3570, FAA Commercial/Instrument Certificate, CFI, Advanced or Instrument Ground Instructor Certificate, or permission of instructor

This course provides students practice as a flight instructor in advanced single- and twin-engine flight simulators. It covers all aspects of flight planning and preparation, setup of simulators, cockpit management, IFR flight procedures and navigation, and emergency procedures using the capabilities of the simulator computers.

### **AES 4600-3 Space Flight (3 + 0)**

Prerequisite: PHY 1250, MTH 1310, AES 3000; or permission of instructor

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Covers the fundamental laws of astrophysics, as well as basic concepts of the universe, astronautics, re-entry, propulsion, and launch vehicles. Includes investigation of space flight, covering such topics as crewed flight, uncrewed flight, space stations, space planes, and space policy. Concludes with computer simulation. Student teams design and build a space station using the latest aerospace techniques. The design project stresses real-world constraints and enhancement of interpersonal skills.

**AES 4710-3 Turboprop Flight Simulation (1 + 4)**

Prerequisite: AES 3710 or FAA Commercial Pilot Certificate with Instrument and Multi-engine Ratings

Introduces twin-engine turboprop aircraft operations. Skill is developed in complex weight- and balance-computation and use of performance charts. Normal and emergency procedures are studied specific to turboprop airline operations. Aeronautical decision making and cockpit resource management skills are developed. Procedures used in regional air carrier operations are learned.

**AES 4760-3 Aerospace Education (3 + 0)**

Prerequisite: permission of instructor

Provides background in aircraft propulsion and principles of flight required to teach aerospace courses in elementary and secondary schools. Acquaints the student with aeronautical terms, the forces acting upon aircraft in flight, and elementary navigation.

**AES 4770-2 Methods of Teaching Aerospace Education (2 + 0)**

Prerequisite: AES 4760 or permission of instructor

Surveys techniques and methods used in applying basic aerospace fundamentals to elementary, secondary, and industrial classrooms. Uses special aerospace media, such as instrument flight simulators, models, radio navigational aids boards, and mockups.

**AES 4780-2 Curriculum Development in Aerospace Education (2 + 0)**

Prerequisites: AES 4760, AES 4770, permission of instructor

Discusses specific objectives and educational implications of aerospace education. Students select a special field of emphasis such as mini-courses for elementary schools, aerospace courses for secondary schools, or adult education courses for industry.

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**AES 4860-3 Aviation Safety (3 + 0)**

Prerequisites: senior standing and completion of all 3000-level AES courses

Presents the principles of aviation accident prevention and aviation operations safety with specific practices, procedures, methods, and organization. Covers the history of aviation mishap experience with legal ramifications, along with those methods used that have proven useful in preventing aircraft mishaps. Human factor, contemporary investigation organization and sources of assistance, analysis of aerodynamics application, fatigue, and stress are presented, applying inferential reasoning as a method of developing critical thinking.

**AES 4870-3 Aviation Safety Program Management (3 + 0)**

Prerequisite: all aviation management 3000-level courses completed

This course studies requirements to direct comprehensive safety programs of aviation organizations at aviation facilities. Included are the philosophy of System's Safety to effect Accident Prevention from product research and development to operation and support of air transportation; the dynamics of interpersonal relationships; Quality Assurance (QA) and Quality Control (QC); effective communications techniques; correct procedures for NTSB and OSHA investigations and reports (and methods of participating in collateral boards); as well as effective proactive management to obtain federal legislation in support of accident prevention, safety and health programs.

**AES 4910-3 Aviation Management Problems and Job Targeting (3 + 0)**

Prerequisites: aerospace science major and senior standing, or permission of instructor

Develops the student's management solving skills and personal marketing plan to effectively pursue employment. Current aviation management problems are researched and solutions are developed through group problem-solving techniques. Personal marketing plan preparation helps define goals, identify skills, prepare credentials, and practice interviewing. Guest lecturers from aviation industry highlight the features of their businesses.

**Air Force ROTC**

**AFR 1010-1 The Air Force Today 1 (1 + 0)**

### **2000-2001 College Catalog**

One 1-hour lecture and one 1 1/2-hour lab per week. This course deals with the Air Force in the contemporary world through a study of the total force structure, strategic offensive and defensive forces, general purpose forces, aerospace support forces, and the development of communicative skills.

### **AFR 1020-1 The Air Force Today 2 (1 + 0)**

A continuation of AFR 1010. One 1-hour lecture and one 1 1/2-hour lab per week.

### **AFR 2010-1 The Air Force Way 1 (1 + 0)**

One 1-hour lecture and one 1 1/2 hour lab per week. This course is a study of air power from balloons and dirigibles through the jet age; a historical review of air power employment in military and nonmilitary operations in

support of national objectives; a look at the evolution of air power concepts and doctrine; and an introduction to the development of communicative skills.

### **AFR 2020-1 The Air Force Way 2 (1 + 0)**

A continuation of AFR 2010. One 1-hour lecture and one 1 1/2-hour lab per week.

### **AFR 3010-3 Air Force Management and Leadership 1 (3 + 0)**

Two 1 1/2-hour seminars plus one 1 1/2 hour lab per week. An integrated management course emphasizing concepts and skills required by the successful manager and leader. The curriculum includes individual motivational and behavioral processes, leadership, communication, and the group dynamics, providing the foundation for the development of the junior officer's professional skills (officership). Course material on the fundamentals of management emphasizes decision making and the use of analytic aids in planning, organizing, and controlling in a changing environment. Organizational and personal values (ethics), management of change, organizational power, politics, managerial strategy, and tactics are discussed within the context of military organization. Actual Air Force case studies are used throughout the course to enhance the learning and communication process.

### **AFR 3020-3 Air Force Management and Leadership 2 (3 + 0)**

Two 1 1/2-hour seminars and 1 1/2-hour lab per week. A continuation of AFR 3010. Basic managerial processes are emphasized, while group



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discussion, case studies and role playing as learning devices are employed. Emphasis on communicative skills development is continued.

### **AFR 4010-3 National Security Forces in Contemporary American Society 1 (3 + 0)**

Two 1 1/2-hour seminars and one 1 1/2-hour lab per week. This course is a study of U.S. National Security Policy which examines the formulation, organization, and implementation of national security policy; context of national security; evolution of strategy; management of conflict; and civil-military interaction. It also includes blocks of instruction on the military profession/officership, the military justice system and communicative skills. This course is designed to provide future Air Force officers with the background of U.S. National Security Policy so they can effectively function in today's Air Force.

### **AFR 4020-3 National Security Forces in Contemporary American Society 2 (3 + 0)**

Two 1 1/2-hour seminars and one 1 1/2 hour lab per week. A continuation of AFR 4010. Special themes include defense strategy and conflict management, formulation/implementation of U.S. defense policy, and organizational factors and case studies in policy making, military law, uniform code of military justice, and communicative skills.

## **Anthropology**

### **ANT 1010-3 Physical Anthropology and Prehistory (2 + 2)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This is an introductory course covering the basic concepts and position of humans in nature, human and cultural evidence of the past, and modern diversity. A brief survey of the discipline of anthropology and its subdivisions will also be included. The laboratory will include firsthand experience in identifying fossil hominids, lithic technology, and human variation. (General Studies—Level II, Natural Science)

### **ANT 1310-3 Introduction to Cultural Anthropology (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

This course provides a comparative perspective on human behavior and thought by exploring a variety of world cultures in the domains of kinship,

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social organization, language, ecological adaptation, economics, and religion. The applied aspects of anthropology are also investigated. (General Studies—Level II, Social Sciences)

**ANT 2100-3 Human Evolution (3 + 0)**

Prerequisite: ANT 1010 or permission of instructor

An intense look at Darwin's century and the ideas that have contributed to our present understanding of human evolution. The hominid fossil record is presented as living history in light of what fossils reveal about the populations they represent, their behavior, and their social organization.

**ANT 2330-3 Cross-Cultural Communication (3 + 0)**

Prerequisites: permission of instructor or satisfaction of Level I General Studies course requirements

Designed to help the nonspecialist gain an understanding of culturally conditioned behavior as it relates to intercultural relations among people of different nations. The course will move from the fundamentals of culture, language, and meaning to viewing the cultural barriers causing communication interference and failure across cultures. (General Studies—Level II, Social Sciences; Multicultural)

**ANT 2350-3****(AAS 2300) African Peoples and Cultures (3 + 0)**

Examines traditional cultures of African peoples. Gives added understanding of culture and people in relation to human problems and experiences. Credit will be granted for only one prefix: ANT or AAS.

**ANT 2360-3****(CHS 2000) Living Culture and Language of the Mexican and Chicano (3 + 0)**

Prerequisite: CHS 1000 or CHS 1020

Traces the fusion of cultures and dialects of the Spanish-speaking Southwest into elements that characterize Chicano intracultural and intercultural diversity. Credit will be granted for only one prefix: ANT or CHS.

**ANT 2640-3 Archaeology (3 + 0)**

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This course will be an examination of how archaeologists discover and interpret the material remains of human behavior from the past.

### **ANT 2710-3 Archaeological Field Research (1 + 4)**

Archaeological field investigations that may consist of surveying, mapping, testing of sites, and/or excavations. Course may be repeated for up to a maximum of six hours. No more than three credit hours may be applied toward a major or minor in anthropology.

### **ANT 3110-3 Human Variation (3 + 0)**

Prerequisite: ANT 1010 or permission of instructor

The varied forms and features of humanity can be grouped and understood in terms of their adaptive costs and benefits. Modern appreciation of human variation lies in the processes that have developed differing human populations. The course will search out the fundamental features of these processes and analyze them.

### **ANT 3150-3 Primate Studies (3 + 0)**

Prerequisite: ANT 1010 or permission of instructor

From the jungle to the zoo, non-human primates are fascinating. Through observation and recent contributions from the field and laboratory, the student will analyze the behavior and structure of living primates. Resulting interpretations will assist in understanding human behavior and human development.

### **ANT 3250-3 Doing Anthropology (3 + 0)**

Prerequisite: ANT 1310 or permission of instructor

An application of the special ethnographic skills related to the collection, management, interpretation, and analysis of cultural information. The study will include examination and practice of participant observation and focused ethnography.

### **ANT 3300-3 Exploring World Cultures: Variable Topics (3 + 0)**

Prerequisite: ANT 1310 or permission of instructor

The focus of study will be an exploration of selected non-Western cultures. Using films and various ethnographic procedures, the student learns how

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culture—and by extension, human culture—is a living thing shaped by the people who carry it. The course may be repeated under different topics.

**ANT 3310-3 Ethnography of North American Indians (3 + 0)**

Prerequisites: ANT 1310 or permission of instructor

Studies the nature and consequences of distinctive Indian cultures that occupied North America at the time of European contact. Includes a close analysis of the many different aspects of social organization and environment that contribute to the unique cultures we call American Indian. (General Studies—Level II, Social Sciences; Multicultural)

**ANT 3340-3 Native Americans in Historical Perspective (3 + 0)**

Prerequisite: ANT 1310 or permission of instructor

A survey of the response of Native American societies to the overrunning social, economic, and political structures of EuroAmerica. Broad areas of cultural change are covered, and the fundamental issues of land, economic development, and cultural integrity are looked at.

**ANT 3350-3 Vanishing Cultures and Peoples (3 + 0)**

Prerequisite: ANT 1310 or permission of instructor

Industrial civilization is now completing its destruction of technologically simple tribal cultures. Intense contextual and comparative analysis of the cultures undergoing drastic modification enhances awareness of the fundamental right of different lifestyles to coexist and develop analytical skills to help understand cultural changes.

**ANT 3390-3 Understanding Cultures (3 + 0)**

Prerequisite: ANT 1310 or permission of instructor

Cultural norms have an enormous influence over the kinds of behavior found in any society. Using contemporary theories of anthropology, the course expands on the means to both understand and mitigate cross-cultural differences.

**ANT 3460-3 Social Organization and Evolution (3 + 0)**

Prerequisite: ANT 1310 or permission of instructor

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An intensive look at forms of social organization, with a focus on kinship, arranged in evolutionary sequence from the hunting-and-gathering band to the complex social networks of a complex society.

### **ANT 3480-3 Cultural Diversity in Health and Illness (3 + 0)**

Prerequisites: permission of instructor and satisfaction of Level I General Studies course requirements

Prepares students to understand the many different viewpoints and concepts related to health and illness in other cultures. Emphasizes the need and means to provide culturally appropriate health care. (General Studies—Level II, Social Sciences; Multicultural)

### **ANT 3610-3 Archaeology of North America (3 + 0)**

Prerequisite: ANT 1010 or permission of instructor

Prehistory of North America emphasizing the peopling of the New World, earliest Indian cultures, and later regional developments.

### **ANT 3620-3 South American Archaeology (3 + 0)**

Prerequisite: ANT 1010 or equivalent, or permission of instructor

This course focuses on the origins and developments of prehistoric South American cultures. Starting with the first people to arrive in South America and culminating in the conquest of the Incas by the Spanish, coverage ranges from the Andean highlands to the tropical jungles of the Amazon.

### **ANT 3660-3 Ancient American Civilizations (3 + 0)**

Prerequisite: ANT 1010 or equivalent, or permission of instructor

The course will concentrate on the study of the emergence, culmination, and fall of Central and South American civilizations. The cultural situation of precivilization America will be presented at the beginning of the course. Throughout, the contributions of American civilizations to our culture will be stressed.

### **ANT 3680-3 Practical Archaeology (3 + 0)**

Prerequisite: ANT 2640 or equivalent, or permission of instructor

A course emphasizing the practical application of selected archaeological methods and techniques consisting of lectures and demonstrations. The

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students will have an opportunity to get acquainted with various field and laboratory equipment and work with archaeological material. Active class participation is expected. The application of computers in archaeological work will also be discussed.

### **ANT 4400-3 Recent Issues in Anthropology: Variable Topics (3 + 0)**

Prerequisite: permission of instructor

An examination of current issues related to new discoveries and ongoing or completed work in archaeology, cultural anthropology, or physical anthropology. Each section will address different areas of anthropology and may be repeated under different topics.

### **ANT 4710-3 Advanced Archaeological Field Research (1 + 4)**

Prerequisite: permission of instructor

Advanced-level archaeological field work, including survey design, map-making, transit survey, sampling strategies, artifact conservation, student supervision of excavations and survey, field sample preparation, computer coding of artifact types and distribution, archival research, site recording, and report writing. Course may be repeated for up to a maximum of six hours. No more than three credit hours may be applied toward a major or minor in anthropology.

## **Art**

The following art courses are listed numerically by area:

### **Non-Majors Courses**

### **ART 1030-3 Basic Photography Methods (0 + 6)**

Students will learn black-and-white film development and printing, basic photographic problem solving dealing with technical and aesthetic concerns. Oriented to non-art majors.

### **ART 1040-3 Art Appreciation Survey (3 + 0)**

Prerequisites: ENG 1010, ENG 1020, and minimum performance standard scores on reading and writing preassessment placement tests

This course is an introduction to the design principles, materials, and techniques used by artists. A variety of art forms from different cultures and historical periods will also be analyzed as social, political, and religious

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documents. Oriented to non-art majors. (General Studies—Level II, Arts and Letters)

### **Core Art Courses**

#### **ART 1100-3 Basic Drawing I (0 + 6)**

This course is an introductory course in the fundamental skills, techniques, media and vocabulary associated with basic drawing.

#### **ART 1110-3 Basic Drawing II (0 + 6)**

Prerequisite: ART 1100

This course is a continuation of ART 1100 with further explorations of fundamental drawing experiences and concept related problems.

#### **ART 1200-3 Design Processes and Concepts I (0 + 6)**

This course is a visual exploration of the basic elements and principles of two-dimensional design, using a variety of media, with emphasis on conceptual processes.

#### **ART 1210-3 Design Processes and Concepts II (0 + 6)**

Prerequisite: ART 1200

This course is a visual exploration of the basic elements and principles of three-dimensional design, using a variety of media and tools, with emphasis on conceptual processes.

### **General Studies Required Courses**

#### **ART 4010-3 Modern Art History: Theory and Criticism (3 + 0)**

Prerequisites: ART 2010 and ART 2020 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A seminar for advanced students involving the reading and discussion of modern writing about the visual arts. Extensive use of the library facilities and written critical essays will be required. (Senior Experience)

#### **ART 4750-3 Senior Experience Studio: Portfolio Development and Thesis Exhibit (0 + 6)**

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Prerequisites: ART 4010 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing in the Art Department

Corequisite: ART 4010

In this studio course, the student will present finished work in a senior thesis show, produce a slide portfolio, and write a concise statement about the intention and methodology of producing the body of work. This class is to be taken in the senior year in the Art Department with the corequisite ART 4010. (Senior Experience)

## **Art History**

### **ART 2000-3 World Art Prior to 1880 (3 + 0)**

Prerequisite: ENG 1010, ENG 1020

This survey of art from both Western and non-Western traditions examines art produced prior to 1880 as the manifestation of the beliefs, aesthetic systems, and social structures of specific cultures and historical periods.

### **ART 2010-3 Survey of Modern Art: Impressionism through Abstract Expressionism (3 + 0)**

Prerequisite: ENG 1010

Corequisite: ENG 1020

This course is a survey of modern art that traces the roots of contemporary art theory and techniques back to Impressionism, showing a development of these ideas through Abstract Expressionism.

### **ART 2020-3 Survey of Contemporary Art: 1960 to the Present (3 + 0)**

Prerequisite: ART 2010 and ENG 1020

This course is a survey of contemporary art that traces the development of contemporary art from the period following Abstract Expressionism to the present with emphasis on art in America.

### **ART 3000-3 Art Nouveau (3 + 0)**

Prerequisite: ART 2010



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This course is a study of the first modern theories of design as they developed out of the concepts of "Art for Art's Sake." These ideas are traced through an in-depth study of furniture, painting, sculpture, pottery, and architecture from the period 1880-1916.

### **ART 3010-3 Art of the Decade (3 + 0)**

Prerequisite: ART 2020

Art of the Decade traces specific thematic trends of the present to their roots in the immediate past. Emphasis is placed on current art theory.

### **ART 3020-3 Art of Africa, Oceania, and the Americas (3 + 0)**

Prerequisites: ENG 1010, ENG 1020

This course is an introduction to the major art forms produced by selected cultures in Africa, the Pacific Islands, and North and Central America. The historical, religious, social, and political content of the artworks will be studied.

### **ART 3030-3 History of Art Between World Wars (3 + 0)**

Prerequisite: ART 2010

An in-depth study of art, architecture, and design in the transitional period between World War I and World War II.

### **ART 3040-3 African Art (3 + 0)**

Prerequisites: ENG 1010 and ENG 1020

This course examines the visual arts in selected regions of the African continent. It is cross-listed with African American Studies.

### **ART 3070-3 History of Photography (3 + 0)**

Prerequisite: ART 2020

Study of the development of the photographic process and the history of the photographic image from the earliest experiments through contemporary photographic concerns.

### **ART 3090-3 Art and Cultural Heritage (3 + 0)**

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Prerequisites: satisfaction of Level I General Studies course requirements and at least junior standing

This course studies artists of African, Asian, and Native American ancestry and their contributions to American art. A brief introduction to the artistic legacy of Africa, Asia, and the Americas is followed by a study of American artists whose creative activity reflects their varied cultural heritages. This course is not applicable to upper division art history credit but may be taken for the multicultural requirement. (General Studies—Level II, Arts and Letters; Multicultural)

### **ART 3950-3**

#### **(WMS 3950) Women's Art/Women's Issues (3 + 0)**

Prerequisites: WMS 1001, ART 1040 or ART 2000, or permission of instructor and satisfaction of Level I General Studies course requirements

The purpose of this course will be to gain an understanding of women artists and their work from the perspectives of feminist scholarship in art and art history. Credit will be granted for only one prefix: ART or WMS. (General Studies—Level II, Arts and Letters)

## **Fine Arts**

### **ART 2100-3 Beginning Life Drawing (0 + 6)**

Prerequisite: art core or permission of instructor

Literal and interpretive investigations of the human figure including basic anatomy; use of a variety of media and techniques.

### **ART 2120-3 Human Anatomy for Artists (0 + 6)**

Prerequisites: ART 1110 and ART 2100

A comprehensive study of human anatomy as a studio drawing experience; emphasis upon objective investigations of the skeletal and musculature systems. Drawing is from the live model as well as an exploration of the interpretive possibilities of the human form.

### **ART 2150-3 Beginning Painting (0 + 6)**

Prerequisites: art core

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This course will explore the materials and techniques of painting, including composition and method.

**ART 2200-3 Beginning Photography (0 + 6)**

Prerequisites: ART 1110, ART 1210

Introduction to photography: materials, techniques, and concepts of picturing. Exploration and usage of basic light-sensitive materials and introduction to ideas about the art of picture making in relation to special course projects.

**ART 2250-3 Beginning Printmaking (0 + 6)**

Prerequisites: art core

A beginning printmaking class introducing the student to calligraphy, art blueprint, silk screen, and intaglio.

**ART 2300-3 Beginning Sculpture (0 + 6)**

Prerequisites: ART 1110, ART 1210

Course introduces students to thinking and problem solving in three dimensions. Sculptural ideas and forms are explored in three basic media/techniques: wood/carving; metal/welding; mold making/casting.

**ART 3100-3 Intermediate Drawing (0 + 6)**

Prerequisites: art core

The explorations that were the focus of basic drawing are joined with a great emphasis on conceptualization and personal directions.

**ART 3140-3 Drawing the Human Head (0 + 6)**

Prerequisites: art core

Students will draw the human head objectively and subjectively. A variety of media and techniques, with literal and inventive explorations of anatomy and surface forms will be included.

**ART 3150-3 Intermediate Painting (0 + 6)**

Prerequisites: art core and ART 2150

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This course will continue the development of methods of painting through exploration of materials, techniques, and pictorial compositional assignments.

**ART 3170-3 Intermediate Life Drawing (3 + 0)**

Prerequisites: art core and ART 2100

The student will redefine traditional drawing skills, extend conceptualization, and expand media and techniques in reference to the human form.

**ART 3180-3 Watermedia (0 + 6)**

Prerequisites: art core or permission of instructor

This course includes both transparent and opaque watermedia and mixed media techniques and approaches.

**ART 3200-3 Intermediate Photography (0 + 6)**

Prerequisites: ART 2020 and ART 2200

Introduction to the extended personally directed project. Problems given to broaden technical skills. Aesthetic and historical issues introduced.

**ART 3230-3 Color Photography (0 + 6)**

Prerequisite: ART 2200

Basic color photography course: Students will have introduction to color materials. Film and print development will be taught. Students will work to produce a body of color photographs.

**ART 3250-3 Intermediate Printmaking (Lithography) (0 + 6)**

Prerequisites: ART 2020 and ART 2250

Black-and-white and colored lithographic prints are developed through traditional and contemporary techniques.

**ART 3260-3 Intermediate Printmaking (Intaglio) (0 + 6)**

Prerequisites: ART 2020 and ART 2250

Various intaglio techniques are explored to allow the student to develop a unique personal expression.

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**ART 3270-3 Intermediate Printmaking (Silkscreen) (0 + 6)**

Prerequisites: ART 2020 and ART 2250

Serigraph (silk-screen) printing in which students are taught to use silk-screen as a means to search for a personal and unique aesthetic image.

**ART 3290-3**

**(JRN 3600) Photojournalism I (0 + 6)**

Prerequisites: art core, ART 1010 or ART 2200, ART 1200 and JRN 1100

This course provides an introduction to photojournalism and techniques used in photography for the print media. Students must have a working knowledge of 35mm cameras and darkroom procedures. Credit will be granted for only one prefix: ART or JRN.

**ART 3300-3 Intermediate Sculpture (0 + 6)**

Prerequisite: ART 1010 and ART 2300

Creative approach to the problems of three-dimensional design in sculpture. Production in metals, wood, plastics or other media as appropriate to student's sculpture concept.

**ART 3780-3 Video Art (0 + 6)**

Prerequisites: ART 1110, ART 1210, ART 2020 or permission of instructor

This course will serve as an introduction to small format video systems and their operation. Upon completion of the course, students will be familiar with half-inch and three-quarter inch systems. Students will learn basic production that is directed toward creative self-expression. Virtuosity will be emphasized through the application of strong ideas.

**ART 4090-3 Advanced Life Drawing (3 + 0)**

Prerequisites: art core, ART 2100, ART 3170

The student will continue experimentation with the figurative idiom and determine a personal approach to a body of figurative work.

**ART 4100-3 Advanced Drawing I (0 + 6)**

Prerequisite: ART 3100

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This is the first tier of advanced drawing in which experimentation and creativity with visual ideas and systems will be encouraged in a supportive climate for individual directions.

### **ART 4110-3 Advanced Drawing II (0 + 6)**

Prerequisite: ART 4100

This is the second tier of advanced drawing in which experimentation and creativity with visual ideas and systems will be encouraged in a supportive climate for individual directions.

### **ART 4120-3 Advanced Drawing III (0 + 6)**

Prerequisite: ART 4110

This is the third and highest tier of advanced drawing in which experimentation and creativity with visual ideas and systems will be encouraged in a supportive climate for individual directions.

### **ART 4150-3 Advanced Painting I (0 + 6)**

Prerequisites: art core and ART 3150

This advanced course will continue the development of methods of painting through exploration of materials, techniques, and pictorial composition assignments.

### **ART 4160-3 Advanced Painting II (0 + 6)**

Prerequisite: ART 4150

This advanced course will continue the development of methods of painting through exploration of materials, techniques, and pictorial composition.

### **ART 4170-3 Advanced Painting III (0 + 6)**

Prerequisite: ART 4160

This advanced course will continue the development of methods of painting through exploration of individualized painting problems.

### **ART 4180-3 Advanced Watermedia (0 + 6)**

Prerequisites: art core and ART 3180

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This course includes both transparent and opaque watermedia and mixed media techniques and approaches. Students will have some choice concerning which media they want to explore most fully.

**ART 4190-3 Computer Graphics III (0 + 6)**

Prerequisite: ART 3410

This course in computer graphics laboratory will cover such areas as drawing, painting, video, bookmaking, sound, and animation as they relate to the fine arts.

**ART 4200-3 Advanced Photography I (0 + 6)**

Prerequisite: ART 3200

Extended projects emphasizing personal vision and approach to photographic media. Technical problems will be solved.

**ART 4210-3 Advanced Photography II (0 + 6)**

Prerequisite: ART 4200

Advanced photography course dealing with archival processing. Production of a cohesive body of work with writing about concepts and ideas involved in the work. Research project about photographer's specific work or a photography monograph.

**ART 4220-3 Advanced Photography III (0 + 6)**

Prerequisite: ART 4210

Advanced photography course: Students will consider possibilities of producing a body of work that could become a photography book or portfolio and follow project through to finished product. Basic skills of slide reproduction of both original and printed materials will be taught, and introduction to photography criticism.

**ART 4230-3 Advanced Color Photography (0 + 6)**

Prerequisite: ART 3230

Continuation of ART 3230, Color Photography.

**ART 4240-3 Photography Assistantship (0 + 6)**

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Prerequisites: ART 2200 and ART 3200 or permission of instructor

This studio course allows the photography student to put into use the basic skills learned in previous courses and to learn at an intense pace the fine tuning of those skills by demonstrating and critiquing. Students will learn to run laboratories, mix special chemicals, and further enhance oral skills by developing teaching strategies.

### **ART 4250-3 Advanced Printmaking I (0 + 6)**

Prerequisite: ART 3250 or ART 3260 or ART 3270

Advanced work in silk screen, lithography, intaglio, and/or photo printmaking in which the student is directed toward unique individual expression.

### **ART 4260-3 Advanced Printmaking II (0 + 6)**

Prerequisite: ART 4250

A further opportunity for the advanced student to develop a unique individual expression in printmaking, with professional control in their chosen area of specialization.

### **ART 4270-3 Advanced Printmaking III (0 + 6)**

Prerequisite: ART 4260

A course for art majors emphasizing printmaking that allows students to develop their individual printmaking aesthetic and hone their craftsmanship.

### **ART 4290-3**

### **(JRN 4600) Photojournalism II (0 + 6)**

Prerequisites: art core, ART 1010 or ART 2200, ART 3290 or permission of instructor

This course provides advanced training in photojournalism and techniques used in photography for the print media. Students must have a working knowledge of 35mm cameras and darkroom procedures. Credit will be granted for only one prefix: ART or JRN.

### **ART 4300-3 Advanced Sculpture I (0 + 6)**

Prerequisite: ART 3300



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The student, in consultation with the instructor, will investigate concepts and create sculpture(s) that realize those concepts.

### **ART 4310-3 Advanced Sculpture II (0 + 6)**

Prerequisite: ART 4300

This course is designed to develop the individual's ability to express her or his ideas and concepts in various sculptural media.

### **ART 4320-3 Advanced Sculpture III (0 + 6)**

Prerequisite: ART 4310

This course continues systems and activities begun in ART 2300, Beginning Sculpture, developed through succeeding courses and culminating in quasi professional approach to creating sculpture.

## **Design**

### **ART 1180-3 Introduction to Computers in Art (0 + 6)**

This course introduces the computer as an art tool. Using Macintosh systems, students will design and create a series of aesthetically based assignments.

### **ART 2180-3 Beginning Computer Imaging I (0 + 6)**

Prerequisite: ART 1180

This course is based on fine art concepts in which the prime concern is the production of art works, illustrations, and designs with software application concentrating on Photoshop and Painter.

### **ART 2190-3 Beginning Computer Imaging II (0 + 6)**

Prerequisite: ART 1180

This course is based on design concepts in which the prime concern is the production of designs, illustrations, and artworks with software applications of Illustrator and QuarkXPress.

### **ART 2400-3 Beginning Advertising Design (0 + 6)**

Prerequisites: ART 1110, ART 1210

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An introduction to the utilization of the letter form as a compositional element. Offers specific instruction relating to the rendering of Roman, Sans-Serif, and calligraphic alphabets.

**ART 3340-3 Illustration (0 + 6)**

Prerequisites: art core and ART 2400, or permission of instructor

This course will provide opportunities to conceptualize, explore a variety of illustrative techniques and acquire skills necessary for production of professionally executed projects.

**ART 3400-3 Intermediate Advertising Design (0 + 6)**

Prerequisites: ART 2020, ART 2400 or permission of instructor

An introductory course in advertising design, illustration, and visual communication. Includes instruction relating to the preparation of art work for reproduction.

**ART 3410-3 Intermediate Computer Imaging (0 + 6)**

Prerequisite: ART 1180 and ART 2180 or ART 1180 and ART 2190

This course will include principles of using the computer as an art making tool in commercial and fine art applications.

**ART 3440-3 Color Theory and Practice (0 + 6)**

Prerequisite: art core or permission of instructor

This studio course investigates the interaction of color through various color systems that will permit students from any discipline to have a working knowledge of color hues and properties of color.

**ART 3760-3 Artist's Hand Bookmaking Workshop (0 + 6)**

Prerequisites: art core

This studio course will deal with the book as an art object. Structure, craft, and conceptual ideas will be taught. Students will build various traditional and nontraditional book types and provide display methods for books in an exhibition context. Hand paper making will be demonstrated.

**ART 3840-3 Directed Studio Projects I (0 + 6)**

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Prerequisites: art core, junior or senior standing and permission of instructor

In this course students develop individual verbal and visual responses to the transformation of concepts and ideas into art using a variety of media.

### **ART 4400-3 Advanced Advertising Design I (0 + 6)**

Prerequisite: ART 3400

Continuation of ART 3400 with emphasis on the production of finished work for the preparation of a graduate portfolio.

### **ART 4410-3 Advanced Advertising Design II (0 + 6)**

Prerequisite: ART 4400

A continuation of ART 4400.

### **ART 4490-3 Internship/Advanced Advertising Design (0 + 9)**

Prerequisites: ART 4400 and ART 4410

This final course in the advanced sequence includes an internship selected for its professional challenges so that students may gain experiences in the reality of the graphic design world.

### **ART 4510-3 Advanced Computer Imaging (0 + 6)**

Prerequisite: ART 3410

This course explores advanced techniques for both fine art and commercial applications of the computer with emphasis on independent problem solving.

### **ART 4840-3 Directed Studio Projects II (0 + 6)**

Prerequisites: art core, ART 3840, junior or senior standing and permission of instructor

This course further develops advanced levels of production and critique that anticipate highly individualize mixed media solutions to complex conceptual problem solving.

## **Crafts**

### **ART 2600-3 Beginning Ceramics (0 + 6)**

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Prerequisites: ART 1110, ART 1210

Introducing clay as a working medium. The instruction includes exploration of a variety of hand-building methods, introduction to ceramic technology, and preparing ware for glazing and firing.

**ART 2650-3 Beginning Metalwork and Jewelry Making (0 + 6)**

Prerequisites: ART 1110, ART 1210

Beginning level course emphasizing transitional approaches to the creation of handcrafted jewelry and precious metal object; introducing the student to the jewelers workshop, basic fabricating techniques, simple stone setting, and lost-wax casting.

**ART 2800-3 Beginning Art Furniture (0 + 6)**

Prerequisites: art core

This course will develop the skills necessary to assemble and craft basic small object art furniture and provide an introduction to aesthetic and conceptual understanding of the discipline.

**ART 3600-3 Intermediate Ceramics (0 + 6)**

Prerequisites: ART 2020, ART 2600

A continued study of ceramic techniques with primary emphasis on learning to use the potter's wheel. Exploration of ceramic processes at stoneware temperatures emphasizing glaze usage with some glaze and color testing. Discussion of kilns and firing processes.

**ART 3610-3 Mold Making Workshop (0 + 6)**

Prerequisite: one semester of college-level ceramics or permission of instructor

An introduction to making molds from three-dimensional objects. Students will learn to make several types of plaster molds useful for reproducing originals in slipcast clay or cast paper.

**ART 3650-3 Intermediate Metalwork and Jewelry Making (0 + 6)**

Prerequisites: ART 2020, ART 2650

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An intermediate level course expanding on the tradition as well as introducing contemporary approaches to the creation of handcrafted jewelry and precious metal objects. The course will emphasize construction, surface enrichment, and forming.

**ART 3800-3 Intermediate Art Furniture (0 + 6)**

Prerequisites: art core and ART 2800

This course will develop the skills necessary to assemble and craft basic fine art furniture, and further one's aesthetic and conceptual understanding of the discipline.

**ART 4600-3 Advanced Ceramics I (0 + 6)**

Prerequisite: ART 3600

Offers an opportunity to extend the student's knowledge of ceramic processes including further experience with varieties of wheel-thrown forms and with combinations of wheel-thrown and hand-built forms.

**ART 4610-3 Advanced Ceramics II (0 + 6)**

Prerequisite: ART 4600

Continued study of ceramics to develop and refine skills for working with clay, glazes, and firing processes. Problems are designed to promote an awareness of the technical and aesthetic possibilities inherent in ceramic processes and to develop a sense of responsibility toward the medium.

**ART 4620-3 Advanced Ceramics III (0 + 6)**

Prerequisite: ART 4610

Advanced studio work in ceramics with emphasis on refining the student's individual skills and extending the range of expression available through better technical understanding. The problems to be approached will be formulated by students in consultation with the instructor.

**ART 4650-3 Advanced Metalwork and Jewelry Making I (0 + 6)**

Prerequisite: ART 3650

An advanced-level course emphasizing contemporary approaches to the creation of handcrafted jewelry and previous metal objects. The course will

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include advanced stone setting, fastening devices, and electrocoloring. Artistic growth will be stressed.

**ART 4660-3 Advanced Metalwork and Jewelry Making II (0 + 6)**

Prerequisite: ART 4650

An advanced-level course emphasizing contemporary approaches to the creation of handcrafted jewelry and previous metal objects. The course will include marriage of metals, inlays, and lamination. Artistic growth and professional maturity will be stressed.

**ART 4670-3 Advanced Metalwork and Jewelry Making III (0 + 6)**

Prerequisite: ART 4660

An advanced-level course emphasizing contemporary approaches to the creation of handcrafted jewelry and previous metal objects. The course will include chemical formula finished, coloration formulas, and alloy formulas. Portfolio preparation for postgraduate opportunities will be emphasized.

**ART 4740-3 Low Fire Ceramic Workshop (0 + 6)**

Prerequisite: one semester of college-level ceramics or permission of instructor

A workshop in low-fire ceramic materials and processes. Students will explore oxidation firing, raku and sagger firing processes and effects. Offered summer sessions only.

**ART 4760-3 Advanced Art Furniture I (0 + 6)**

Prerequisites: art core, ART 2800, and ART 3800

This course will develop the skills necessary to assemble and craft basic fine art furniture, and further one's aesthetic and conceptual understanding of the discipline.

**ART 4770-3 Advanced Art Furniture II (0 + 6)**

Prerequisites: art core, ART 2800, ART 3800, and ART 4760

This course will develop the skills necessary to assemble and craft fine art furniture of exhibition quality, provide a comprehensive aesthetic and conceptual understanding and encourage stylistic maturity in the discipline.

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### **ART 4780-3 Advanced Art Furniture III (0 + 6)**

Prerequisites: art core, ART 2800, ART 3800, ART 4760, and ART 4770

This course will develop the skills necessary to design and craft fine art furniture of exhibition quality, and develop stylistic maturity. Portfolio development and preparation will be required upon completion of art furniture sequence.

## **Art Education Licensure**

### **ART 3380-4 Introduction to Art Education (3 + 2)**

Prerequisites: 27 semester hours of art major (including core) coursework, or permission of instructor

This lecture course will introduce historical, philosophical, social, and educational concepts, which have influenced the development of art education in the United States. The current standing of art education, within the context of general education, will be assessed, and a field experience required.

### **ART 4370-2 Art Methods for the Classroom Teacher K-6 (0 + 4)**

Prerequisites: EDU 3100, EDU 3640, and ART 1040

This studio course for elementary education students will combine practical studio experiences in art with art education theory and philosophy.

### **ART 4380-4 Art Methods/Materials K-12 (1 + 6)**

Prerequisites: EDS 3110, ART 3380, or permission of instructor

This lecture/studio course, preparing K-12 art specialists, is designed to create and implement visual art curriculum through theoretical approaches to and experimental activities in methodology of art education. Field experience is required.

### **ART 4390-3 Integrating the Arts for Gifted and Talented (2 + 2)**

Prerequisites: one course selected from the following disciplines: music, dance, theater, visual arts or creative writing and permission of instructor

This course will present a variety of integrated arts curricula appropriate for gifted learners by studying theoretical concepts and practical applications that stimulate the creative process. Field experience is required.

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### **Astronomy**

#### **AST 1040-3 Introduction to Astronomy (2 + 2)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

A brief introduction to observational astronomy is followed by a survey of the physical processes and models that describe the evolution of planets, stars, galaxies, and modern cosmology. This course is taught in both the lecture and self-paced mode. (General Studies—Level II, Natural Science)

#### **AST 1052-4 General Astronomy I (3 + 2)**

Prerequisite: high school algebra or equivalent

Introduces the methods and results of modern astronomy (solar system, stars, galaxies, and cosmology) at an elementary level.

#### **AST 1060-4 General Astronomy II (3 + 2)**

Prerequisite: AST 1050

A continuation of AST 1050.

#### **AST 3040-3 Modern Cosmology (3 + 0)**

Prerequisites: AST 1040 or PHY 1000 or equivalent, and satisfaction of Level I General Studies requirements

Designed for non-majors. Covers the large-scale structure of the universe and such topics as gravitational theories, neutron stars, pulsars, black holes, big bang universe, steady state theory, cosmological tests, dark matter, age of the universe, inflationary models, recent data, and fate of the universe. (General Studies—Level II, Natural Science)

### **Athletics**

#### **ATH 1000-1-2 Varsity Sports (1 + 1) or (2 + 2)**

Offers the serious athlete the opportunity for refinement of the skills involved in each sport. Emphasizes an understanding and application of skills of the individual sport in intercollegiate competition, team cooperation, and school spirit. Interested students are encouraged to contact the individual sport coach with résumé, current statistics, and letters of recommendation from previous coaches.



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### **Biology**

#### **BIO 1000-3 Human Biology for Non-Majors (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This one-semester course familiarizes the student with the principles of the living world, the basic form and function of the human body, and how these two relate to each other. Basic variations of life forms and the interrelationships of the human body to the surrounding world are the main thrusts of the course. This course does not apply toward a biology major or minor. (General Studies—Level II, Natural Science)

#### **BIO 1010-3 Ecology for Non-Majors (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This one-semester course familiarizes the student with the fundamentals of human ecology of North America. Classical concepts of ecology and modern environmental pressures are brought together to give both a background to and a discussion of existing environmental problems. A field trip to the Denver Museum of Natural History is required outside of class. This course does not apply toward a biology major or minor. (General Studies—Level II, Natural Science)

#### **BIO 1080-3 General Introduction to Biology (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing and mathematics preassessment placement tests

Corequisite: BIO 1090

This introductory course serves as the foundation for all other professional biology courses (for majors, minors, paramedical, premedical, and other biology students). Emphasis is on cellular and molecular biology, energy systems, genetics, evolution, and ecology. Offered in lecture format. (General Studies—Level II, Natural Science. A student must successfully pass both BIO 1080 and BIO 1090 to receive General Studies credit.)

#### **BIO 1090-1 General Introduction to Biology Laboratory (0 + 2)**

Prerequisite: minimum performance standard on reading, writing and mathematics preassessment placement tests

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Corequisite: BIO 1080

This mandatory laboratory accompanies BIO 1080. This course introduces basic laboratory techniques and will reinforce/explore concepts introduced in BIO 1080. (General Studies-Level II, Natural Science. A student must successfully pass both BIO 1080 and BIO 1090 to receive General Studies credit.)

### **BIO 1230-1 Understanding Medical Terminology (Self-Paced) (1 + 0)**

This self-paced course uses an audiovisual system to teach the meanings of 350 Latin and Greek word parts (elements) and how they can be combined to interpret and understand 10,000 complex medical terms.

### **BIO 2100-5 General Botany (3 + 4)**

Prerequisite: BIO 1080 and BIO 1090 or equivalent

This is a one-semester introductory survey of the plant kingdom with an emphasis on evolutionary theory, life cycles, anatomy and morphology, and vascular plant physiology.

### **BIO 2200-5 General Zoology (3 + 4)**

Prerequisite: BIO 1080 and BIO 1090 or equivalent

This is a one-semester introduction to concepts and principles of taxonomy, nutrition, respiration, reproduction, excretion, locomotion, environmental awareness, structure-function, economic importance, ecology, and evolution, for all major animal groups, protozoa through mammals.

### **BIO 2310-4 Human Anatomy and Physiology I (3 + 3)**

Prerequisite: BIO 1080 and BIO 1090 or permission of instructor

This is the first of two courses addressing the structure and function of the human body. Topics include tissues, anatomy, the musculoskeletal system, and neurophysiology. Course content and level are designed for allied health science students and for human performance, sport and leisure studies majors.

### **BIO 2320-4 Human Anatomy and Physiology II (3 + 3)**

Prerequisite: BIO 2310 or permission of instructor

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This is the second of two courses addressing the structure and function of the human body. Topics include endocrinology; circulation; and the respiratory, digestive, urinary and reproductive systems. Course content and class level are designed for allied health science students and for human performance, sport and leisure studies majors. BIO 2320 cannot be used as credit toward a biology major or minor if the students also takes BIO 3320.

### **BIO 2400-4 General Microbiology (3 + 2)**

Prerequisites: BIO 1080 and BIO 1090, plus one year of high school chemistry, or one semester of college chemistry, or permission of instructor

This is a one-semester introduction to the microbial world, including discussions of bacteria, blue-green algae, fungi, protozoans, and viruses.

### **BIO 3000-3 Advances in Biology (3 + 0)**

Prerequisites: BIO 1080 and BIO 1090 and CHE 1800 or permission of instructor

The course examines the impact of modern science and technology on the future development of biological science. Topics include space and diving physiology, the impact of the information revolution (computers and the Internet), the science of exobiology, new techniques to study biology, directors in modern medicine and nanotechnology.

### **BIO 3010-3 Microtechnique (1 + 6)**

Prerequisite: BIO 2100, or BIO 2200, or permission of instructor

This is exclusively a laboratory course that is taught partially by demonstration with the use of prepared projection slides and specialized equipment such as microtomes, warming tables, staining series, and embedding ovens. Students are expected to prepare their own slides, using both plant and animal tissues.

### **BIO 3050-4 Cell and Molecular Biology (4 + 0)**

Prerequisites: BIO 1080 and BIO 1090 and CHE 3100, or permission of instructor

This is the study of the chemical bases and interrelationships of cellular structure as related to cellular function.

### **BIO 3140-5 Plant Physiology (3 + 4)**

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Prerequisite: BIO 2100 or permission of instructor

This course is a comprehensive survey of the internal chemical changes within plants and how these changes control growth and development. Discussions include water relations, transpiration, food transport, ion uptake, photosynthesis, respiration, plant movements, flowering, dormancy, and senescence.

### **BIO 3150-2 Plant Hormones (2 + 0)**

Prerequisite: BIO 2100 or permission of instructor

This course is a study of the roles of the natural hormones such as auxins, gibberellins, cytokinins, and abscisic acid in the growth and development of vascular plants. The use of synthetic substances (growth regulators) such as weed killers and growth retardants is also discussed.

### **BIO 3160-4 Plant Anatomy and Morphology (2 + 4)**

Prerequisite: BIO 2100 or permission of instructor

This course is a survey of cell types, tissue systems, and the anatomical structure of stems, roots, and leaves of vascular plants. The development and evolutionary history of vascular plants will be discussed.

### **BIO 3180-4 Vascular Plant Taxonomy (2 + 4)**

Prerequisite: BIO 2100 or permission of instructor

The identification and collection of the common vascular plants of Colorado is studied. Lectures include principles plant terminology, characteristics of major plant families, phylogenetic relationships, and uses of the plants. Laboratories consist of identification of the plants in the field and on herbarium mounts. A student collection is required.

### **BIO 3210-4 Histology (2 + 6)**

Prerequisite: BIO 2200, or BIO 2310, or BIO 2320, or permission of instructor

A comprehensive study of the microscopic structure and appearance of body tissues and of the tissue composition of body organs, mainly as seen in mammals. Emphasis is placed on the laboratory. Correlations are drawn between structure and function. Laboratory drawings are required.

### **BIO 3220-5 Comparative Vertebrate Anatomy (3 + 6)**

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Prerequisite: BIO 2200 or permission of instructor

A comprehensive study is made of the evolution of structure and function of vertebrates. The laboratory portion of the course is emphasized and will consist of detailed dissections of vertebrates representing several classes.

### **BIO 3250-4 Arthropod Zoology (3 + 3)**

Prerequisite: BIO 2200 or permission of instructor

A survey is made of the major classes of arthropods. The arachnids, crustacea, diplopoda, chilopoda, and insects are covered in much greater detail than is possible in a general zoology course. The subarthropods are covered briefly.

### **BIO 3270-4 Parasitology (3 + 2)**

Prerequisite: BIO 2200 and junior or senior standing

A study is made of the structure, function, taxonomy, and life cycles of those parasites important to humans, domestic animals, the economy, or that illustrate parasitological principles.

### **BIO 3300-3 Advanced Human Biology for Non-Majors (3 + 0)**

Prerequisites: BIO 1000, or BIO 2310, or BIO 2320, or permission of the instructor, and satisfaction of Level I General Studies course requirements

This course is designed to be an advanced sequel to BIO 1000. It addresses the more complex aspects of human body functions and how the body deals with insults such as bombardment of microorganisms, various dietary practices, pollution, and socio-economic challenges. Topics include immunity, AIDS, genetics, stress, cancer, and aging. (General Studies—Level II, Natural Science)

### **BIO 3320-4 Advanced Human Physiology (3 + 3)**

Prerequisites: BIO 1080 and BIO 1090, two additional semesters of Biology, one year of chemistry

This in-depth physiology course covers the function of the human body as it relates to homeostasis. This course emphasizes membrane transport, fluid compartments, acid/base balance, cardiovascular and respiratory physiology and neurotransmission. BIO 2320 cannot be used as credit towards a biology major or minor if the student also takes BIO 3320.

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### **BIO 3340-3 Endocrinology (3 + 0)**

Prerequisites: BIO 1080 and BIO 1090, two additional semesters of biology, and CHE 3100 required, or permission of instructor

This course is a survey of the major human endocrine organs and their hormones. Topics include normal anatomy and physiology of each gland, cellular mechanisms of hormone action, and endocrinopathies.

### **BIO 3350-4 Immunology (3 + 3)**

Prerequisites: BIO 1080 and BIO 1090, CHE 3100, and junior or senior standing, or permission of instructor

This course is a study of the humoral and cell-mediated immune response. Topics include immunobiology, immunochemistry, hypersensitivity, autoimmune diseases, and theories of antibody formation.

### **BIO 3360-4 Animal Physiology (4 + 0)**

Prerequisite: BIO 2200 and CHE 1810, or permission of instructor

This is a lecture course for science majors on the physiological process common to most animals, and on the physiological adaptations and acclimation to environmental challenges—especially with respect to temperature, moisture, and oxygen availability.

### **BIO 3500-3**

#### **(SPE 3500) Anatomy and Physiology of the Speech and Hearing Mechanism (3 + 0)**

Prerequisite: BIO 2310 or permission of instructor

Corequisite: BIO 3501 or SPE 3501

This course examines the anatomy and physiology underlying human communication. Specific systems studied include respiration, phonation, articulation, audition and the nervous system. Students explore how anatomical and physiological deficits relate to communicative pathology.

### **BIO 3501-1**

#### **(SPE 3501) Anatomy and Physiology of the Speech and Hearing Mechanism Laboratory (0 + 2)**

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Prerequisite: BIO 2310 or permission of instructor

Corequisite: BIO 3500 or SPE 3500

This laboratory provides experiential learning to support the content presented in SPE/BIO 3500, Anatomy and Physiology of the Speech and Hearing Mechanism.

### **BIO 3530-3**

#### **(HES 3810) Physiology of Aging for Non-Biology Majors (3 + 0)**

Prerequisites: BIO 1000 or equivalent, completion of all Level I General Studies course requirements or permission of instructor

This course views aging from both the biological and the physiological perspectives. Theories on the biology of aging and cultural variations of aging will be explored. The concepts of continuity and change will be used to study the cellular and molecular events throughout the lifespan that lead to aging and disease. Causes, physiological and pathological changes, and factors that contribute to life prolongation and the strengthening of physiologic competence to improve the quality of life as individuals age will be addressed. (General Studies-Level II, Natural Science)

### **BIO 3550-4 Urban Ecology (3 + 3)**

Prerequisites: BIO 1080 and BIO 1090 or one semester of chemistry, physics, or earth science, or permission of instructor, and satisfaction of Level I General Studies course requirements

An analysis is made of the urban ecosystem and the factors involved: water, transportation, solid wastes, energy, land, political institutions, economics, social patterns, communications, recreation, shelter, nutrition, and population. Field trips to key environmental locations in the greater metropolitan Denver area and field trip reports are required. (General Studies—Level II, Natural Science)

### **BIO 3600-4 General Genetics (4 + 0)**

Prerequisites: BIO 1080 and BIO 1090 and two additional semesters of biology required, one year of chemistry strongly recommended, or permission of instructor

A study is made of classical genetics, with emphasis on numerical analysis of inheritance. The molecular biology of replication, transcription, and

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translation is presented. Genetic variation and human genetic diseases are discussed.

**BIO 4120-4 Algology (2 + 4)**

Prerequisite: BIO 2100

This course is a survey of algae, with emphasis on the freshwater forms of the U.S. Evolutionary theory, ecology, life cycles, and anatomy and morphology are discussed. The laboratory stresses culturing techniques and taxonomy.

**BIO 4160-4 Mycology (2 + 4)**

Prerequisite: BIO 2100 or BIO 2400

This course is a survey of the fungi with emphasis on the lower fungi, imperfects, and plant pathogenic ascomycetes. Culture techniques, identification, life cycles, and economic importance are stressed.

**BIO 4250-4 Entomology (3 + 3)**

Prerequisites: BIO 2200 and junior or senior standing, or permission of instructor

A study of the structure, physiology, and evolution of the insects. The internal, as well as external, structure of the insects is considered and the importance of these structures on the insects is developed both in lecture and laboratory.

**BIO 4270-3 Herpetology (2 + 2)**

Prerequisites: BIO 2200 and BIO 4540 or BIO 4550, or permission of instructor

This course is a survey of the characteristics, taxonomy, evolutionary trends, and environmental adaptations of amphibians and reptiles. Identification of Colorado species will be emphasized in the laboratory. Current literature readings will be assigned. At least one weekend field trip will be required.

**BIO 4280-4 Ornithology (3 + 3)**

Prerequisite: BIO 2200 or permission of instructor

This course is a survey of the life of birds, especially as related to their evolutionary origins, adaptations for flight, and exploitations of various



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ecological niches. Includes consideration of behavior, physiology, and classification. Required field trips may include one weekend trip.

**BIO 4290-3 Mammalogy (2 + 3)**

Prerequisites: BIO 2200 and 4540 or 4550, or permission of instructor

This course is a survey of taxonomic, physiologic, and anatomic characteristics of modern orders of mammals. Illustrative environmental adaptations and major evolutionary trends will be discussed. The laboratory will include study-skin preparation and identification of representative mammalian species.

**BIO 4400-4 Microbial Physiology (3 + 3)**

Prerequisites: BIO 2400 and CHE 3100 (may be taken concurrently), or equivalent, or permission of instructor

A detailed study of the organization and structure of bacterial cells is presented. An emphasis is placed on biosynthesis, polymerization, and assembly of bacteria.

**BIO 4440-3 Virology (3 + 0)**

Prerequisites: BIO 2400 and BIO 3600, or permission of instructor

A survey of the interactions of viruses and their hosts is presented. The emphasis is on bacterial and animal host forms.

**BIO 4450-5 Pathogenic Microbiology (3 + 4)**

Prerequisite: BIO 2400 or permission of instructor

A comprehensive study of human bacterial pathogens. The emphasis is on etiology, pathogenesis, and epidemiology of human diseases. Laboratory studies involve isolation and identification.

**BIO 4470-4 Microbial Genetics (3 + 3)**

Prerequisites: BIO 2400 and BIO 3600, or permission of instructor

A study of current information on the mechanisms of microbial inheritance and expression of genetic information, intended to develop perspectives relative to the evolution of the field, applications to higher organisms, and directions in current research.

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### **BIO 4510-3 Microbial Ecology (3 + 0)**

Prerequisites: BIO 2400 and six hours of upper-division microbiology courses, or permission of instructor, satisfactory completion of all Level I and II General Studies course requirements, senior standing

This course is a detailed study of microbial ecology, emphasizing population interactions, quantitative ecology, habitat ecology, and biochemical cycling. Discussion of biotechnological aspects of microbial ecology will be included. (Senior Experience)

### **BIO 4540-4 Plant Ecology (4 + 0)**

Prerequisites: BIO 2100, or permission of instructor, senior standing, and satisfaction of all Level I and II General Studies course requirements

This course, in either a lecture/seminar or self-paced format, proceeds from a study of concepts (matter and energy, food webs, nutrient cycles, succession) to a discussion of populations, communities, and biomes, emphasizing the interrelationships and interdependence of living things with each other and with their nonliving environment. This course, in lecture/seminar format, is approved for Senior Experience credit or can be applied to the biology major or minor requirements, but cannot be applied to both Senior Experience and a biology major or minor. The self-paced format can be used for biology major or minor requirements, but not for Senior Experience credit. (Senior Experience)

### **BIO 4550-4 Animal Ecology (3 + 3)**

Prerequisite: BIO 2100 and BIO 2200, or permission of instructor

A detailed consideration is made of population dynamics, intra- and interspecific interactions, niche segregation, species diversity, speciation, and distributional patterns. Appropriate readings from current literature will be required.

### **BIO 4810-4 Vertebrate Embryology (2 + 6)**

Prerequisite: BIO 2200 or permission of instructor

This course is a survey of events, evolutionary patterns, and control mechanisms in early embryonic development of various classes of vertebrates, from fertilization through early organ formation. Laboratory includes the study of living fish embryos. Lab drawings are required.

### **BIO 4850-3 Evolution (3 + 0)**

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Prerequisites: BIO 3600 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, senior standing

This course will develop an awareness and understanding of organismic evolution as the foundation of biological thought. The major features of evolution—variation, natural selection, adaptation and speciation—and their significance to the origin and evolution of major plant and animal groups are investigated. A research paper and an oral presentation will be required. (Senior Experience)

## **Civil Engineering Technology**

### **CET 1100-3 Civil Technology (3 + 0)**

Prerequisite: MTH 1110 (may be taken concurrently)

This course is a cross section of topics in contemporary engineering disciplines, with emphasis on the tools of engineering problem solving. It includes discussion of the problem, the influencing factor, the analysis, and the creative design process itself.

### **CET 1200-3**

#### **(MET 1200) Technical Drawing I (1 + 4)**

Prerequisite: MET 1200 or CET 1200

This course is mechanical drawing using AutoCAD and manual drafting, and includes orthographics, axiometric and oblique projection, sectioning, dimensioning, and tolerancing. The student is also introduced to fluid power diagrams, piping weldments, and electrical and electronic diagrams. The final project is an assembly drawing of a mechanical component or subsystem.

### **CET 1210-3**

#### **(MET 1210) Technical Drawing II (1 + 4)**

Prerequisite: CET 1200

This course is mechanical drawing using AutoCAD and manual drafting, and includes orthographics, axiometric and oblique projection, sectioning, dimensioning, and tolerancing. The student is also introduced to fluid power diagrams, piping weldments, and electrical and electronic diagrams. The final project is an assembly drawing of a mechanical component or subsystem.

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**CET 2100-4 Structural Drawing (2 + 4)**

Prerequisite: CET 1210

This course is designed to prepare the necessary drawings of structural members and connections, including engineering layouts and detail drawings.

**CET 2150-3**

**(MET 2150) Mechanics I–Statics (3 + 0)**

Prerequisite: MTH 1410 (may be taken concurrently)

This course examines principles of statics, studies of vectors, their resolution and composition, forces and moments, force systems and their resultants. It also covers force systems in equilibrium, static friction, centroids, moments of inertia and radii of gyration of areas, shear and moment diagrams.

**CET 3100-3 Construction Methods (3 + 0)**

Prerequisite: junior standing

This course provides a basic understanding of the methods used by a general contractor to determine earthwork costs. The student is introduced to the application of engineering fundamentals for the analysis of heavy earth-moving equipment, as well as to the basic concepts of CPM. Also taught in this course is a basic understanding of cost estimating of reinforced concrete structures.

**CET 3110-3 Construction Estimating (3 + 0)**

Prerequisite: junior standing

This course provides a basic understanding of the methods used to prepare a building and/or bridge construction cost estimate. The students learn to do quantity survey utilizing plans and specifications, with emphasis on concrete.

**CET 3120-3 Engineering Economy (3 + 0)**

Prerequisite: junior standing

This course examines the “time value of money” as a basis for evaluating economic alternatives required in engineering decision-making.

**CET 3130-3**

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**(MET 3130) Mechanics of Materials (3 + 0)**

Prerequisites: CET 2150 or MET 2150, MTH 2410 (MTH 2410 may be taken concurrently)

Corequisite: CET 3140 or MET 3135

This course introduces the theory of strength of materials; stresses and strains in members subjected to tension, compression, and shear; flexural and shearing stresses beams; deflection of beams; column analysis; principal stresses; and introduction to indeterminate structures.

**CET 3140-1**

**(MET 3135) Mechanics of Materials–Laboratory (0 + 2)**

Prerequisites: CET 2150 or MET 2150 and COM 2610

Corequisite: CET 3130 or MET 3130

This course is a laboratory course to accompany the lecture course CET 3130-3, Mechanics of Materials. This laboratory course is structured to give the student experience in the use of laboratory equipment for conducting torsion, shear and bending tests on various materials.

**CET 3150-3**

**(MET 3110) Thermodynamics (3 + 0)**

Prerequisites: MTH 1410 and PHY 2010 or PHY 2311

The fundamental laws of thermodynamics are studied. Basic concepts of energy, the thermodynamic system, dimensions and units, and the ideal-gas equation of state are treated. Closed and open systems are studied. Heat engines are introduced. Reversible and irreversible processes are investigated.

**CET 3160-3**

**(MET 3160) Mechanics II–Dynamics (3 + 0)**

Prerequisites: CET 2150 or MET 2150, MTH 2410 (MTH 2410 may be taken concurrently)

This course covers the principles of dynamics: kinematics, the study of the geometry of motion of a body without reference to the forces that cause the

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resulting motion; and kinetics, the study of the relation existing between the forces acting on the body, the mass of the body, and the motion of the body.

**CET 3170-3 Introduction to Structural Analysis (3 + 0)**

Prerequisite: CET 3130

This course presents first principles of structural analysis applied to statically determinate and indeterminate structures.

**CET 3180-3****(MET 3185) Fluid Mechanics I (3 + 0)**

Prerequisite: CET 3160 or MET 3160

This course covers physical properties of fluids, hydrostatics, kinematics, energy considerations, momentum, and incompressible flow in pipes. Compressible fluid flow will also be studied.

**CET 3190-3 Fluid Mechanics II (3 + 0)**

Prerequisite: CET 3180

This course focuses on the study of the hydrologic cycle, rainfall and runoff, water losses, snowmelt, groundwater, unit hydrograph, floods and flood routing, streamflow records, frequency duration, and water resources planning.

**CET 3320-3 Environmental Impact Statements (3 + 0)**

Prerequisite: junior standing or permission of instructor

This course is a study of the physical and legal requirements of the environmental impact assessment process. Students will learn to do information research and prepare a draft environmental impact statement.

**CET 3330-3 Environmental Technology Processes (3 + 0)**

Prerequisites: CHE 1100, junior standing

This course covers chemistry basics, acid-base reactions, biochemical processes and reactions. Also included is an overview of water and wastewater process. The course introduces basic laboratory tests and introduces bacteria and microbes in waste treatment processes.

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### **CET 4120-3 Concrete Design I (3 + 0)**

Prerequisite: CET 3170

This course is a basic introduction to the fundamental principles of reinforced concrete design.

### **CET 4130-3 Soils Mechanics (2 + 2)**

Prerequisites: CET 3130, CET 3180

This course covers soil properties and soil characteristics, as well as methods of sampling and analysis. Students will analyze variations in behavior under different loading conditions.

### **CET 4140-3 Concrete Design II (3 + 0)**

Prerequisite: CET 4120

This course is a continuation of the fundamentals introduced in Concrete Design I, with an emphasis on the analysis and design of concrete structural members based on the latest editions of the American Concrete Institute Building Code requirements for reinforced concrete.

### **CET 4150-3 Highway Engineering (3 + 0)**

Prerequisite: CET 4120

This course is a specialized course in requirements, functional characteristics, and system characteristics of highway design. Develops design methods, procedures, and analysis for pavement design, roadway alignment, and user information for freeways, city arterials, and rural roadways.

### **CET 4400-3 Steel Design I (3 + 0)**

Prerequisite: CET 3170

This course focuses on the analysis and design of structural steel members, based on the latest edition of AISC design requirements and specifications for structural steel.

### **CET 4410-3 Steel Design II (3 + 0)**

Prerequisite: CET 4400

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This course is a continuation of the fundamentals introduced in Steel Design I, with emphasis on the analysis and design of structural steel members, connections, and composite members, based on the latest AISC design requirements and specifications for structural steel.

### **CET 4450-3 Timber Design (3 + 0)**

Prerequisite: CET 3170

This course focuses on the analysis and design of wood structures based on the latest edition of the *National Design Specifications for Wood Construction and Supplement*.

### **CET 4570-3 Construction Law (3 + 0)**

Prerequisite: CET 3100

This course provides the student with a basic understanding of contract laws and regulations, laws that govern the execution of the work being performed under the contract, laws that relate to the settling of differences and disputes, and licensing laws.

## **Chemistry**

### **CHE 1010-3 Chemistry and Society (3 + 0)**

Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is intended for nonscience students who need to satisfy the General Studies Science requirement. It introduces basic concepts of chemistry in modern society. The emphasis of the course is to permit students to obtain a qualitative understanding of chemical principles and their application to environmental issues. (General Studies—Level II, Natural Science)

### **CHE 1100-5 Principles of Chemistry (4 + 2)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is a study of the fundamentals of chemistry including both theoretical and laboratory principles. A survey of atomic structure, periodicity, bonding, nomenclature, stoichiometry, gas laws, and solution chemistry is provided for those students with no background in these areas. (General Studies—Level II, Natural Science)



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### **CHE 1800-4 General Chemistry I (4 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests and high school chemistry; and either three years high school math or college algebra

A comprehensive study of the facts, concepts, and laws of chemistry. The course is designed to meet the requirements of students majoring in chemistry, medicine, medical technology, biology, physics and other fields requiring a strong background in chemistry. (General Studies—Level II, Natural Science)

### **CHE 1810-4 General Chemistry II (4 + 0)**

Prerequisites: CHE 1800 and minimum performance standard scores on reading, writing, and mathematics preassessment placement tests (completion of CHE 1810 and 1850 with a passing grade is required to receive General Studies credit)

A continuation of CHE 1800. This course provides a comprehensive study of the facts, concepts, and laws of chemistry. The course is designed to meet the requirements of students majoring in such areas as chemistry, medicine, medical technology, biology, physics and other fields requiring a strong background in chemistry. (General Studies—Level II, Natural Science)

### **CHE 1850-2 General Chemistry Laboratory (1 + 3)**

Prerequisite: CHE 1800—completion of CHE 1810 and CHE 1850 with a passing grade is required to receive General Studies credit.

Corequisite: CHE 1810

This course introduces basic laboratory techniques and will reinforce/explore concepts introduced in CHE 1800 and CHE 1810. A one-hour recitation will be utilized to discuss theoretical and procedural aspects of laboratory experiments. (General Studies—Level II, Natural Science)

### **CHE 2100-5 Introduction to Organic and Biological Chemistry (4 + 2)**

Prerequisite: CHE 1100

A study of the elements of organic and biological chemistry. This course satisfies requirements for nursing programs and other fields requiring a survey of organic and biological chemistry.

### **CHE 2300-3 Inorganic Chemistry (2 + 2)**

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Prerequisites: CHE 1800, CHE 1810, CHE 1850

This course introduces and reviews such topics as bonding and reactivity of inorganic substances, acid-base concepts, descriptive chemistry of the main group elements, and transition elements/coordination chemistry. Laboratory deals with the synthesis and characterization of inorganic compounds.

**CHE 2700-4 Introduction to Criminalistics (3 + 2)**

A study of basic principles and analysis of microevidence, drug analysis, dactyloscopy, firearms examination, serology, hair and fiber analysis, and soil and glass analysis.

**CHE 2750-3 Arson and Explosives (3 + 0)**

Prerequisite: CHE 1100

This course will include a study of the chemistry of fires and explosions. Arson scene evidence collection and preservation techniques will be discussed, as well as techniques for analyzing the residues collected.

**CHE 2760-1 Field Testing and Laboratory Analysis of Drugs (1 + 0)**

Prerequisite: CHE 1100

The course introduces the theory and practice of using a drug-testing kit to screen for the presence or absence of controlled substances.

**CHE 3000-3 Analytical Chemistry (3 + 0)**

Prerequisites: CHE 1800, CHE 1810, CHE 1850

Corequisite: CHE 3010

A study of the fundamentals of analytical chemistry, including principles of gravimetric, volumetric, potentiometric, and spectrophotometric analysis.

**CHE 3010-2 Analytical Chemistry Laboratory (0 + 4)**

Prerequisites: CHE 1800, CHE 1810, CHE 1850

Corequisite: CHE 3000

A study of laboratory methods in analytical chemistry, including techniques of gravimetric, volumetric, potentiometric, and spectrophotometric analysis.

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### **CHE 3050-3 Environmental Chemistry (3 + 0)**

Prerequisites: CHE 1800, CHE 1810, CHE 1850, CHE 3100

A study of the sources, reactions, transport, effects, and fates of chemical species in water, soil, air, and biota environments.

### **CHE 3100-4 Organic Chemistry I (4 + 0)**

Prerequisites: CHE 1800, CHE 1810, CHE 1850; satisfaction of Level I General Studies course requirements

An introduction to the study of nomenclature, structure, synthesis, reactions, properties, identification, and mechanisms of both aliphatic and aromatic organic compounds. (General Studies—Level II, Natural Science)

### **CHE 3110-3 Organic Chemistry II (3 + 0)**

Prerequisite: CHE 3100

A continuation of CHE 3100. A study of the nomenclature, structure, physical/chemical/spectroscopic properties, synthesis, and reactions of the major families of organic compounds.

### **CHE 3120-2 Organic Chemistry Laboratory I (0 + 4)**

Prerequisites: CHE 1800, CHE 1810, CHE 1850; satisfaction of Level I General Studies course requirements

Prerequisite or Corequisite: CHE 3100

A laboratory course whose focus is an introduction to basic techniques of preparation, purification, and identification of organic compounds. (General Studies—Level II, Natural Science)

### **CHE 3130-2 Organic Chemistry Laboratory II (0 + 4)**

Prerequisites: CHE 3100 and CHE 3120

Prerequisite or Corequisite: CHE 3110

A continuation of CHE 3120. A qualitative organic analysis course in which both classical and instrumental techniques are used to elucidate organic structure.

### **CHE 3190-4 Survey of Physical Chemistry (4 + 0)**

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Prerequisites: CHE 3000, MTH 1410, PHY 2010

A survey of the principles of thermodynamics, equilibrium, atomic/molecular structure, electrochemistry, kinetics, quantum mechanics, and spectroscopy.

**CHE 3200-1 Survey of Physical Chemistry Lab (0 + 3)**

Prerequisites: CHE 3000, MTH 1410, PHY 2010

Laboratory explorations of key concepts in thermodynamics, equilibrium, kinetics, and electrochemistry. Technical writing is emphasized; students are expected to use a personal computer to complete lab reports.

**CHE 3250-4 Physical Chemistry I (4 + 0)**

Prerequisites: MTH 2420, PHY 2010 or PHY 2310; CHE 3000

A comprehensive study of the principles of gas dynamics, thermodynamics, solution properties, and electrochemistry.

**CHE 3260-4 Physical Chemistry II (4 + 0)**

Prerequisites: CHE 3250; PHY 2020 or PHY 2330

A comprehensive study of the principles of quantum mechanics, quantum chemistry, atomic structure, molecular structure, symmetry, and spectroscopy.

**CHE 3280-2 Physical Chemistry Laboratory I (0 + 4)**

Corequisite: CHE 3250

A laboratory study of the basic principles of gas dynamics, thermodynamics, equilibrium, and data-handling techniques.

**CHE 3290-2 Physical Chemistry Laboratory II (0 + 4)**

Corequisite: CHE 3260

A laboratory study of the basic principles of quantum mechanics and spectroscopy.

**CHE 3400-1 Chemical Literature Search (1 + 0)**

Prerequisites: CHE 3000, CHE 3010, CHE 3100

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This course is designed to teach the student how to perform an in-depth chemical literature search. Handbooks, biological abstracts, Beilstein, primary literature, chemical abstracts, and citation indices will be covered. Both manual and computer-assisted searches will be performed.

### **CHE 3600-4 Crime Scene Investigation I (3 + 2)**

Prerequisite: CHE 2700

The course is designed for field investigators seeking a minor in criminalistics. Course material presented includes identification; individualization; collection and preservation of physical evidence; approach, processing, and investigation of crime scenes; establishing identity; trace evidence; impressions evidence; blood; and other biological evidence.

### **CHE 3610-4 Crime Scene Investigation II (3 + 2)**

Prerequisites: CHE 2700 and CHE 3600

This course is a continuation of CHE 3600 for field investigators seeking a minor in criminalistics. Course materials include specialized instruction in the following topics: drugs and toxicology; arson and explosives, sexual assault investigation, burglary investigation, motor vehicle investigation, and homicide investigation.

### **CHE 3700-4 Criminalistics I (3 + 2)**

Prerequisite: CHE 3110

This course introduces the theory and practice of physical evidence analysis. Topics covered include firearms, fingerprints, hairs and fibers, numbers restoration, shoe prints, arson, and paints.

### **CHE 3710-4 Criminalistics II (3 + 2)**

Prerequisite: CHE 3700

This course is a continuation of CHE 3700. It introduces the theory and practice of chemical evidence analysis. Topics include controlled substances, toxicology, and serology.

### **CHE 3800-3 Personal Computers for Science (3 + 0)**

Prerequisites: CHE 1800, CHE 1810, CHE 1850; CSS 1010 or CMS 1010

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This course is designed to teach students to use existing software on IBM and IBM-compatible personal computers. Systems studied include MS DOS, desktop publishing, spreadsheet manipulation, database management, and graphics.

### **CHE 3890-1-3 Science and Public Policy: Variable Topics (1-3 + 0)**

Prerequisites: any lower-division science course and ENG 1010, or permission of instructor

This course provides a working familiarity with the technical issues that influence major public policy decisions. Policy issues and relevant technologies and their interactions are discussed. Course content varies according to current topics, such as health, environment, and energy. This course may be repeated under different topics.

### **CHE 4010-3 Advanced Organic Chemistry (3 + 0)**

Prerequisite: CHE 3110 and CHE 3190 or CHE 3260

An integrated study of techniques used for the investigation of organic reaction mechanisms and a survey of the nature of important organic reaction intermediates.

### **CHE 4020-3 Synthetic Organic Chemistry (3 + 0)**

Prerequisites: CHE 3110, CHE 3130; CHE 3190 or CHE 3260

A unified approach to classical and modern synthetic chemistry, including aspects of mechanism, and stereochemistry.

### **CHE 4100-3 Instrumental Analysis (3 + 0)**

Prerequisites: CHE 3000, CHE 3010, CHE 3100; CHE 3190 or 3260

This course presents the theory and practice of instrumental methods of analysis. Topics include: electronics; atomic and emission spectroscopy; UV-VIS spectroscopy; fluorescence and phosphorescence spectrophotometry; emission and absorption spectroscopy; infrared spectrometry; Raman spectroscopy; NMR electroanalytical methods; HPLC, GC, SPE, CE, and other chromatography methods.

### **CHE 4110-2 Instrumental Analysis Laboratory (0 + 6)**

Prerequisites: CHE 3000, CHE 3010, CHE 3100, CHE 3110; CHE 3190 or CHE 3260

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Corequisite: CHE 4100

A study of instrumental methods, employing electromagnetic radiation, magnetic resonance, mass spectrometry, chromatography, and electrochemistry.

### **CHE 4150-4 Instrumentation and Analysis in the Occupational Environment (3 + 2)**

Prerequisite: CHE 4100

The instruments used to sample and analyze potential occupational hazards will be described. Students gain experience in the calibration and use of direct-reading and field-sampling instruments.

### **CHE 4200-3 Evaluation and Control of Air Quality (2 + 2)**

Prerequisite: CHE 4150

A continuation of CHE 4150. The concepts and techniques of sampling, evaluation, and control of airborne hazards are presented. Principles of ventilation are included.

### **CHE 4300-3 Advanced Inorganic Chemistry (3 + 0)**

Prerequisite: CHE 3190 or CHE 3260

A study of atomic and molecular structure, bonding and bond energies, coordination theory, x-ray crystallography, solvent systems, and periodic relationships of the elements.

### **CHE 4310-4 Biochemistry I (4 + 0)**

Prerequisite: CHE 3100

An introduction to the chemistry of living systems with emphasis placed on metabolism, bioenergetics, molecular strategy and regulation. Applications to the related fields of nutrition, human physiology, and medicine are stressed.

### **CHE 4320-3 Biochemistry II (3 + 0)**

Prerequisite: CHE 4310

Continuation of Biochemistry I (CHE 4310). Course theme and emphasis is current biochemical research results. Topics covered include enzyme

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catalysis, biosynthesis, membrane biochemistry, genetic engineering, molecular basis of cancer, neurochemistry, biochemical detoxification, molecular basis of inherited diseases, genetic transposition, free radical theory of aging, and selected topics in human nutrition.

**CHE 4350-1 Biochemistry Laboratory (0+3)**

Prerequisite: CHE 4310

This course introduces basic techniques and instrumentation of biochemical research and offers opportunities for independent work in both the library and the laboratory.

**CHE 4650-4 Chemistry Work Experience/Cooperative Education (0 + 40)**

Prerequisites: CHE 3010, CHE 3110

Laboratory field experience for students majoring or minoring in chemistry. A total of 600 hours of work experience will be required.

**CHE 4700-7 Criminalistics Internship I (0 + 21)**

Prerequisite: CHE 3710

Laboratory internship experience for criminalistics majors.

**CHE 4710-7 Criminalistics Internship II (0 + 21)**

Prerequisite: CHE 4700

Laboratory internship experience for criminalistics majors.

**CHE 4950-3 Senior Experience in Chemistry (3 + 0)**

Prerequisites: senior standing; CHE 1810, CHE 3000, CHE 3110; either CHE 3190 or CHE 3250; and satisfaction of Level I and II General Studies course requirements

A capstone experience for students seeking a major in chemistry. Consists of library research in conjunction with a chemistry faculty member, concluding with the submission of a significant paper on some area of chemistry; presenting the paper to the Chemistry Department; and completing four American Chemical Society examinations. (Senior Experience)

**Chinese**



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### **CHI 1110-3 Basic Conversational Chinese I (3 + 0)**

This course presents the essentials of elementary Chinese through a conversational approach.

### **CHI 1120-3 Basic Conversational Chinese II (3 + 0)**

Prerequisite: CHI 1110 or equivalent, or permission of instructor

This course is a continuation of CHI 1110.

## **Chicano Studies**

### **CHS 1000-3 Introduction to Chicano Studies (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

Introduces interdisciplinary analysis of the Chicano experience in the U.S. Incorporates research in history, the arts, sociology, anthropology, political science, education, medicine, and engineering to provide better academic skills in a competitive national and international atmosphere. (General Studies—Level II, Social Sciences; Multicultural)

### **CHS 1010-3**

#### **(HIS 1910) History of Meso-America: Pre-Columbian and Colonial Periods (3 + 0)**

Prerequisites: CHS 1000, minimum performance standard scores on reading and writing preassessment placement tests

Examines indigenous cultures of Meso-America during the pre-Columbian period, with a focus on social, artistic, scientific, and engineering artifacts before and after the conquest of Mexico and the Southwestern U.S. by Spain. Credit will be granted for only one prefix: CHS or HIS. (General Studies—Level II, Historical; Multicultural)

### **CHS 1020-3**

#### **(HIS 1920) History of the Chicano in the Southwest: Mexico and U.S. Periods (3 + 0)**

Prerequisites: CHS 1010 or permission of instructor; minimum performance standard scores on reading and writing preassessment tests

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A study beginning with the Mexican War of Independence (1810) and concluding with an in-depth study of the historical development of the contemporary Chicano world. Credit will be granted for only one prefix: CHS or HIS. (General Studies—Level II, Historical; Multicultural)

### **CHS 2000-3**

#### **(ANT 2360) Living Culture and Language of the Mexican and Chicano (3 + 0)**

Prerequisite: CHS 1000 or CHS 1020

Traces the fusion of cultures and dialects of the Spanish-speaking Southwest into elements that characterize Chicano intracultural and intercultural diversity. Credit will be granted for only one prefix: CHS or ANT.

### **CHS 2010-3**

#### **(ENG 2410) Survey of Chicano Literature (3 + 0)**

Prerequisite: CHS 1000 or permission of instructor

Reviews major literary genres associated with Chicano creative expression, including the poetry, drama, and the novel. Credit will be granted for only one prefix: CHS or ENG.

### **CHS 2020-3**

#### **(ENG 2420) Chicano Poetry and Drama (3 + 0)**

Prerequisite: CHS 2010 or permission of instructor

An intensive study of Chicano poetic and dramatic arts as it attempts to create a new reality. Provides a basic approach to poetry and drama as a craft through production. Credit will be granted for only one prefix: CHS or ENG.

### **CHS 2100-3**

#### **(AAS 2100, ICS 2100, NAS 2100, WMS 2100) Women of Color (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment tests; one of the following: AAS 1010, CHS 1000, ICS 1000, NAS 1000, or WMS 1001; or permission of instructor

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Though U.S. women share much in common, their differences are salient to a thorough understanding of all these women's experiences. Comparative analysis of these differences and their significance according to race, class, and ethnicity are central to this course. The similarities among diverse groups of women will also be examined in order to better understand the complexity of women's lives. To focus the discussion, the course will cover work; families; sexuality and reproduction; religion; and politics. Credit will be granted for only one prefix: CHS or AAS or ICS or NAS or WMS. (General Studies—Level II, Social Sciences; Multicultural)

### **CHS 2110-3 The Chicano in Aztlan (3 + 0)**

Prerequisite: CHS 1000 or permission of instructor

Focuses on three major motifs associated with the socio-historical development of the Chicano in the Southwest: land, farm labor, and urban enclave.

### **CHS 2120-3**

#### **(HIS 2820) Mexico: Independence to Revolution, 1810-1910 (3 + 0)**

Prerequisite: CHS 1010/HIS 1910

Describes the social, political, cultural, and economic development of the Mexican people during the 19th century. Provides an analysis of how race, class, gender, regionalism, and foreign intervention influenced Mexican history throughout the era. Credit will be granted for only one prefix: CHS or HIS.

### **CHS 2130-3**

#### **(HIS 2830) Mexico: Revolution to the Present, 1910-1990s (3 + 0)**

Prerequisites: CHS 1010/HIS 1910, CHS 2120/HIS 2820, or permission of instructor

Traces the social, political, cultural, and economic effects of the 1910 Revolution on 20th century Mexico. Describes the influence of the U.S. government and citizens on Mexico's history. Credit will be granted for only one prefix: CHS or HIS.

### **CHS 3010-3**

#### **(HIS 3830) The Mexican Revolution (3 + 0)**

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Prerequisite: CHS 1000 or permission of instructor

Traces the social, political, and economic forces that contributed to the Mexican Revolution (1910-1920). Provides a critical analysis of how leaders, women, the Mexican masses, and the U.S. influenced revolutionary events. Credit will be granted for only one prefix: CHS or HIS.

### **CHS 3100-3**

#### **(SOC 3130) The Chicano Community (3 + 0)**

Prerequisites: CHS 1000 or permission of instructor; satisfaction of Level I General Studies course requirements

An in-depth study of the history of community organizations, the process by which they came about, and information about organizations and their functions in the community. Credit will be granted for only one prefix: CHS or SOC. (General Studies—Level II, Social Sciences; Multicultural)

### **CHS 3200-3**

#### **(CJC 3720) Chicanos and the Law (3 + 0)**

Prerequisite: CHS 1000 or CJC 1010 or permission of instructor and satisfaction of all General Studies Level I course requirements

The course offers the student a complex understanding of the laws, the legal system, and how they relate to individual Chicanos and Chicano community rights. The dynamics of difference, cultural conflict with respect to race, and

issues concerning ethnicity will be examined. Credit will be granted for only one prefix: CHS or CJC. (Multicultural)

### **CHS 3210-3**

#### **(SOC 3470) The Chicano Family (3 + 0)**

Prerequisites: CHS 1000 or permission of instructor; and satisfaction of all Level I General Studies course requirements

A study of the Chicano family as a social institution in its varying manifestations as it transmits knowledge for existence in a multicultural world. Credit will be granted for only one prefix: CHS or SOC. (General Studies—Level II, Social Sciences)

### **CHS 3300-3**

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**(EDU 3120) Education of Chicano Children (3 + 0)**

Prerequisite: CHS 2000

Presents the Chicano perspective on current public education policy and its implementation in the schools. Examines learning and teaching differences in students and teachers. Credit will be granted for only one prefix: CHS or EDU.

**CHS 3400-3**

**(ENG 3480) The Chicano Novel (3 + 0)**

Prerequisite: CHS 2010 or permission of instructor

Deals with origins, themes, and techniques that characterize the Chicano novel, while providing an in-depth study of the best examples of literary production in both Spanish and English. Credit will be granted for only one prefix: CHS or ENG.

**CHS 3410-3**

**(ENG 3490) Chicano Folklore of the Southwest (3 + 0)**

Prerequisite: CHS 2000 or permission of instructor

Accents the study of oral and written folklore as a genre in Chicano history and culture. Focuses on tales, traditions, belief, and humor as a means to gain insight into what is culturally specific. Credit will be granted for only one prefix: CHS or ENG.

**CHS 3460-3**

**(WMS 346D) La Chicana (3 + 0)**

Prerequisite: CHS 1000 or permission of instructor

Provides an in-depth analysis of the history and roles of Mexican-American women. Surveys the representation of La Chicana in Chicano studies and women's studies and articulates her contributions to Chicano society, as well as to the dominant culture.

**CHS 3800-3 Topics in Chicano Studies (3 + 0)**

Prerequisites: CHS 1000 or permission of instructor; and satisfaction of Level I General Studies course requirements

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Facilitates in-depth study of selected topics in Chicano studies.

### **CHS 4010-3 The Chicano Movement (3 + 0)**

Prerequisite: CHS 1000, CHS 3100 or permission of instructor

Provides a perspective on the Chicano civil rights movement. Discusses the social conditions, civil rights issues, and direction of the movement in contemporary society.

### **CHS 4200-3**

#### **(ENG 4130) Seminar: Carlos Castaneda (3 + 0)**

Prerequisite: junior or senior standing or permission of instructor

A serious and detailed analysis of major literary figure Carlos Castaneda and the scope of his production. Credit will be granted for only one prefix: CHS or ENG.

### **CHS 4850-3 Research Experience in Chicano Studies (3 + 0)**

Prerequisites: six hours of upper-division courses in Chicano studies or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and preferably senior standing

Enhances the development of research skills, theory construction, and application of theory to the discipline of Chicano studies. Requires an in-depth research project and a research paper on a selected topic. Emphasizes critical understanding of the literature and the writing of a research paper. Designed primarily for Chicano studies majors and minors. (Senior Experience)

## **Criminal Justice and Criminology**

### **CJC 1010-3 Introduction to the Criminal Justice System (3 + 0)**

The American criminal justice system: its problems and reactions to prevailing social forces. The continuum of criminal justice from police, through the courts, to corrections is surveyed to provide a background for more in-depth study in later courses.

### **CJC 1100-3 Evolutionary Legal Concepts in Criminal Justice (3 + 0)**

Evolution of crucial legal tools and concepts in the criminal justice process, common and statutory law, trial and appellate court, grand and trial jury,

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police and citizen, prosecutor and defense attorney, legal insanity, and other areas, with emphasis on their historical impact.

**CJC 2000-3 Introduction to Legal Studies (3 + 0)**

This course will provide students with an overview of the United States legal system. Topics such as court structure, law school, the practice of law and ethical issues will be covered. This course is a requirement for the Legal Studies minor.

**CJC 2010-3 Introduction to Private Security (3 + 0)**

An introduction to security and loss prevention in proprietary and governmental institutions. An overview of the historical, philosophical, and legal basis of private security and its role in modern society. Pertinent operational aspects of resources protection.

**CJC 2100-3 Substantive Criminal Law (3 + 0)**

Prerequisite: CJC 1010

This course acquaints students with common law, statutory crimes and with definitions and distinctions between criminal and civil law. Students are assigned criminal law readings and Colorado criminal code sections.

**CJC 2120-3 Evidence and Courtroom Procedures (3 + 0)**

Prerequisite: CJC 1010 and CJC 1100

This course explores the rules of evidence and the admissibility of evidence.

**CJC 2140-3 Criminal Procedure (3 + 0)**

Prerequisite: CJC 2100

This course is a survey of the procedural law governing criminal cases from arrest through final appeal.

**CJC 2200-3 Law Enforcement Operations (3 + 0)**

This course is an in-depth examination of the complexity and multidimensional aspects of police work in modern America. The role and function of the police within the occupational, social, political, and organizational context is presented.

**CJC 2910-1-2 Critical Issues in Criminal Justice (1-2 + 0)**

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Prerequisite: permission of department chair

A variable titled course focusing student attention upon critical criminal justice issues. Student may repeat the course under different titles.

### **CJC 3120-3 Constitutional Law for Criminal Justice Professionals (3 + 0)**

Prerequisite: CJC 2120 and CJC 2140

This course will study the U.S. Constitution and the function of the U.S. Supreme Court in interpreting that document. The class consists of readings of decisions in the areas of speech, religion, civil rights, privacy, and other fundamental rights, with special emphasis on cases affecting criminal justice.

### **CJC 3140-3 Juvenile Law (3 + 0)**

Prerequisite: CJC 1100

This course analyzes the operation of the juvenile court, substantive and due process rights of minors, and legal reasoning underlying the juvenile justice system.

### **CJC 3200-3 Criminal Justice Administrative Behavior (3 + 0)**

Prerequisite: CJC 1010

This course is a comprehensive analysis of criminal justice organizational behavior and management. Roles and values in management, administrative alternatives, and the role of managers as an agent of change are studied.

### **CJC 3280-3 Classification and Case Management of the Offender (3 + 0)**

Prerequisite: CJC 1010

This course is a study of criminal offender classification concepts, principles, and techniques. Interview techniques, case diagnosis, and use of testing programs as classification aids are applied in the classroom. Operation of reception and diagnostic centers and the principles of the treatment process are discussed.

### **CJC 3290-3 Probation, Parole and Community Corrections (3 + 0)**

Prerequisite: CJC 3280



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This course examines the history, development, principles and operation of community-based corrections. The selection, supervision and prediction of success, experimental programs and current trends are studied. Students prepare a presentence investigation report.

**CJC 3340-3 Correctional Problem Solving (3 + 0)**

Prerequisites: CJC 3290 or permission of instructor

This course is an introduction to the special problems and needs of the adult offender. The theory and practice that create a positive counseling milieu for the offender both within and outside the prison setting are studied. The course content includes the development of skills that make problem solving with the offender successful.

**CJC 3350-3 Seminar in Delinquency Causation, Prevention and Control (3 + 0)**

Prerequisite: CJC 1010 or permission of instructor

This course is a study of the nature and causes of delinquency and crime, criminal personality and societal processes. This course includes an introduction to the topological analysis of juvenile delinquency and an examination of the concepts of prevention, control and prediction.

**CJC 3400-3 Criminal Behavior and Criminal Careers (3 + 0)**

Prerequisite: CJC 3350

The characteristics of criminal behavior, including biological, psychological, social, and cultural links to deviant and antisocial behavior are studied. This course examines criminal self-conceptions, criminal personality and serial criminals.

**CJC 3410-3 Criminal Justice and the Social Structure (3 + 0)**

Prerequisites: CJC 1100

This course examines criminal justice systems in relation to social power, class structure, ecological patterns, subcultural developments, and processes of change in the community and in the criminal justice structure. Culture is examined in order to comprehend the interaction between subcultures in the larger society, as well as develop an understanding of cultural competence. The course evaluates the ambivalence in the social processes of law enforcement, courts and corrections, and the problems of professionalization.

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**CJC 3450-3 Behavior Development (3 + 0)**

Prerequisite: CJC 3400

Basic behavior modification principles and techniques for professionals, probation officers and correctional workers are studied. The course includes a study of critical ethical and legal issues.

**CJC 3500-3 Criminal Investigation (3 + 0)**

Prerequisite: CJC 1010 and CJC 1100

This course includes a detailed inquiry into the processes, procedures and qualifications needed to conduct, record, report and manage a criminal investigation. The use of forensic science and other technical assistance is examined as support for other procedures. The differing environment of the public and private sectors is explored.

**CJC 3510-3 Drug Abuse: Legal Issues and Treatment (3 + 0)**

Prerequisites: junior or senior standing or permission of instructor

An intensive study of the legal problems of illicit drug trafficking, control of drug abuse, and alternative approaches. Emphasis on major judicial decisions and administrative procedures used by criminal and civil authorities, the behavior of the addict, the impact of international conventions, and prognosis for future criminal justice system responses.

**CJC 3700-3 Civil Law for Criminal Justice Administration (3 + 0)**

Prerequisite: junior or senior standing

This course provides students with fundamental concepts of civil law as reflected in the law of civil procedure and civil law court system. The course addresses areas of civil liability for criminal justice practitioners and allows students to examine public purposes of the law and to develop theories of civil liability.

**CJC 3710-3**

**(WMS 3310) Women and the Law (3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

Examination of women's legal rights under the U.S. legal system and Colorado law. Deals with family law, Equal Employment Opportunity Acts,

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housing, credit and finance, welfare, social security, abortion, prostitution, rape, and the ERA. Credit will be granted for only one prefix: CJC or WMS.

### **CJC 3720-3**

#### **(CHS 3200) Chicanos and the Law (3 + 0)**

Prerequisite: CHS 1000 or CJC 1010 or permission of instructor and satisfaction of all General Studies Level I course requirements

The course offers the student a complex understanding of the laws, the legal system, and how they relate to individual Chicanos and Chicano community rights. The dynamics of difference, cultural conflict with respect to race, and issues concerning ethnicity will be examined. Credit will be granted for only one prefix: CJC or CHS.

(Multicultural)

### **CJC 3850-3 Corporate Security Management (3 + 0)**

Prerequisites: CJC 1010, CJC 2010

An in-depth examination of the role, techniques, and strategies of corporate security management; the role of management; OSHA regulations; and institutional security.

### **CJC 4050-2-3 Criminal Justice Professional Seminar (Variable Title) (2-3 + 0)**

Prerequisite: permission of department chair or senior standing

A variable titled course focusing on the synthesis of concepts and skills present in the criminal justice system. Designed to provide the criminal justice professional theories and their application to criminal justice policy implementations. May be repeated under different titles.

### **CJC 4100-3 Advanced Jurisprudence (3 + 0)**

Prerequisites: senior standing

This course analyzes the nature of justice and law within the context of time and culture. It is designed to allow students to examine the function of law and the impact of social values.

### **CJC 4300-3 The American Correctional System (3 + 0)**

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Prerequisite: CJC 1100

This course is a study of the history and development of the American system of corrections and detentions. It includes a study of the issues of custody, discipline, treatment, and prison programs for reformation and re-education. Alternatives to incarceration are identified and analyzed.

### **CJC 4310-3 Correctional Law (3 + 0)**

Prerequisites: senior standing

Constitutional rights and limitation of rights of criminal offenders in the correctional setting are analyzed. The effects of court rulings on correctional administrators, staff, agencies, and operations are discussed and reviewed.

### **CJC 4400-3 Criminal Justice Planning, Policy Analysis, Evaluation and Budgeting Systems (3 + 0)**

Prerequisite: CJC 3200 or senior standing

A comprehensive examination of the planning processes within the criminal justice system; the methodologies of program evaluation; the tools and techniques of policy analysis and formulation and fiscal management within criminal justice agencies; preparation of budget documents; and management of the politics of the budget process are studied and evaluated.

### **CJC 4410-3 Contemporary Police Administration (3 + 0)**

Prerequisite: senior standing

This course is a study of contemporary police management practices. The organizational approach to community policing is examined. A case study of a community policing orientated police department is analyzed. An in-depth study of a department's philosophy, personnel policies, organizational structure, and other practices is completed.

### **CJC 4420-5 Practicum in Corrections (3 + 4)**

Prerequisite: permission of instructor

This course is a study of programs and practices of agencies in the correctional system. Students are supervised while performing relevant tasks at correctional agencies to further develop their skills.

### **CJC 4430-3 Comparative Criminal Justice (3 + 0)**

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Prerequisite: CJC 1010 or permission of instructor

This course includes a survey of worldwide criminal justice philosophies, systems and practices, and an examination of contemporary studies of criminal justice organizations and legal systems in major and emerging nations.

### **CJC 4610-3 Current Problems in Criminal Justice Administration (3 + 0)**

Prerequisite: junior or senior standing

This course examines criminal justice practices, processes, and philosophies that affect agency strategies.

### **CJC 4650-3 Ethics for the Criminal Justice Professional (3 + 0)**

Prerequisites: senior standing

This course is an in-depth analysis of ethical issues which confront the criminal justice professional. It includes an examination of the issues of covert surveillance, regulation of morals, equity and fairness, "blowing the whistle," and the public interest versus private freedom. (Senior Experience)

### **CJC 4670-5 Research Seminar in Criminal Justice Administration (3 + 4)**

Prerequisite: senior standing (must be arranged during junior year)

The application of research methods to the criminal justice administrative process; the tools, techniques, and methods of research; and writing the research report.

### **CJC 4750-3 Crime Prevention and Loss Reduction (3 + 0)**

Prerequisite: CJC 1010, CJC 2010, or permission of instructor

An in-depth analysis of the concept, techniques, and strategies of crime prevention and loss reduction, with emphasis upon the selection and implementation of comprehensive prevention systems and loss-reduction strategies.

## **Computer Information Systems**

### **CMS 1010-3**

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**(CSS 1010) Introduction to Computers (3 + 0)**

This course is designed for students who wish to use a microcomputer in their academic pursuits and their career. The student will learn how to use a personal computer with application software featuring word processing, spreadsheets, file management, graphics, electronic communications, and thesaurus/spelling checker. This course also reviews the historical, societal, ethical, and technological aspects of computers. Credit will be granted for only one prefix: CMS or CSS.

**CMS 1080-3**

**(CSS 1080) The World Wide Web, the Internet and Beyond (3 + 0)**

This course is for anyone who uses or wants to access the World Wide Web or use the Internet. Students will master a set of basic skills including using electronic mail, logging in to remote computers, obtaining online documents and software, and using a browser like Netscape to search and explore the World Wide Web for information. Students will also learn the fundamentals of web page construction. Credit will be granted for only one prefix: CMS or CSS.

**CMS 1110-1 Computer Literacy and Windows (0 + 2)**

This is a course in computer literacy and the use of the Windows operating system. Computer literacy deals with the basic nomenclature of the computer. The Windows portion focuses on gaining hands-on expertise in fundamental Windows commands, such as formatting and copying disks, setting up directory (folder) structures, and creating batch files. The primary learning vehicles are text-based tutorials and hands-on exercises.

**CMS 1120-1 Word Processing with MS Word (0 + 2)**

Prerequisite: CMS 1110 or equivalent experience

This is a course in the use of the MS Word word processing program on a personal computer. It covers fundamental skills such as creating, editing and printing a document; creating form letters and merge files; and embedding graphics in documents. The primary learning vehicles are text-base tutorials and hands-on exercises.

**CMS 1130-1 Spreadsheets with MS Excel (0 + 2)**

Prerequisite: CMS 1110 or equivalent experience

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This is a course in the use of the MS Excel spreadsheet program on a personal computer. It covers fundamental skills such as creating a spreadsheet, using the Excel command structure, creating graphics and creating macros. The primary learning vehicles are text-base tutorials and hands-on exercises.

### **CMS 2010-3 Computer Applications for Business (3 + 0)**

Prerequisites: computer literacy as evidenced by a previous course in high school or college or by appropriate work experience

This course is an introduction to business information systems from the end-user's perspective. It includes instruction in: (1) computer hardware and software, (2) use of computer software productivity tools including systems software and application software (word processing, computer communication using e-mail and Internet, data management and analysis with spreadsheets), and (3) introduction to transaction processing systems as the fundamental level of business information systems. Note: This course is primarily intended for students with majors in the School of Business.

### **CMS 2110-3 Business Problem Solving: A Structured Programming Approach (3 + 0)**

Prerequisite: CMS 2010

This is a problem-solving course in which the tools of structured design are used to design computerized solutions to business problems. Procedural programming languages are used to implement these designs. Emphasis is placed on the implementation of the three logic constructs in procedural languages: sequence, selection and iteration. Students will be required to develop, test and debug programs in one or more procedural languages, using a variety of hardware and operating system platforms.

### **CMS 2230-3 Word Processing (3 + 0)**

Prerequisite: Typing skill of at least 40 wpm

This course is designed to give students in-depth, hands-on experience with word processing software and to acquaint the students with other aspects of the "electronic office."

### **CMS 2300-3 Business Statistics (3 + 0)**

Prerequisites: MTH 1110 or MTH 1310

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This is a course in the application of statistical inference and translation of quantitative data into information which can be used in business decision making. This course will cover the topics of index numbers, descriptive statistics, probability theory, sampling distributions, confidence intervals, tests of hypotheses, and regression and correlation analysis, in the context of management decision making skills needed by industry.

### **CMS 3030-3 Business Web Page Development (3 + 0)**

Prerequisite: CMS 2110 or permission of instructor

This is a course in business web page development. Specifically, the student will learn how to plan the development of a web site, compose web site specifications, apply coding to the development of any kind of web site and find and use development resources. The student will use a leading code-centric text editor to aid in all course web page development projects. The student will also be introduced to a leading graphical editing tool for supplemental use.

### **CMS 3050-3 Fundamentals of Systems Analysis and Design (3 + 0)**

Prerequisite: CMS 2010

Systems analysis focuses on the study of existing information systems, problem definition, data collection, and new system requirements. System design focuses on improving the information system, selecting alternate solutions, determining the best solution, and documenting that solution.

### **CMS 3060-3 File Design and Database Management (3 + 0)**

Prerequisite: CMS 2110

The course covers the current status of database system implementation. Functional characteristics, such as file design, are examined in detail. Guidelines are developed which will aid in evaluation of vendor-supplied database management systems or specification of an in-house system.

### **CMS 3090-3 Principles of Computer Operating Systems (3 + 0)**

Prerequisite: CMS 2110

This course provides an introduction to operating system concepts. The UNIX operating system is used to illustrate how these concepts are implemented in typical business information systems. Topics addressed include the purpose and uses of an operating system, resource management (e.g.,



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memory, processes, I/O and files), control language, shells, scripts and system utility software. It is not a UNIX system administration course.

### **CMS 3110-3 Structured COBOL (3 + 0)**

Prerequisite: CMS 2110

This is a course in computer programming using comprehensive COBOL syntax in teaching problem solving in a business systems environment. Problems are selected to illustrate structured systems development for a comprehensive business system that requires the implementation of COBOL syntax and techniques for their solution.

### **CMS 3120-3 BASIC Programming and Graphics for Computers (3 + 0)**

Prerequisite: CMS 2010

This course covers the use of graphical presentation of business information. Programs are written using the graphics extensions to standard programming languages, line graphs, bar charts, pie charts, and other graphics presentations will be created and their value explored. High level graphics languages will also be studied.

### **CMS 3130-3 Business Applications in C and UNIX (3 + 0)**

Prerequisites: CMS 2110, or proficiency in a computer programming language, or permission of the instructor

This course covers the major elements of the C programming language and the UNIX operating system commands used for software and system development. Typical business computer program requirements are used to illustrate and practice problem-solving, software design using structured design tools, and computer program development.

### **CMS 3140-3 Advanced Assembler Languages (3 + 0)**

This is an advanced course in computer programming that uses the IBM 370 and its basic assembly language (BAL) to explore programming concepts. Topics include buffered I/O; the Assembler as a prototypical computer program; organization of the object modules and load-modules; the influence of data structures on code optimization; standard macros and macro writing; dump reading; design and implementation of a disassembler program; floating point arithmetic; and debugging techniques.

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### **CMS 3141-3 Multimedia Business Information Systems Development (3 + 0)**

Prerequisite: CMS 2010

This course serves as an introduction to the authoring systems used to produce microcomputer based multimedia business information systems. Emphasis is on object oriented design and operation of business information systems within a visually oriented environment. The process of design and implementation is combined with an exposure to multimedia theory. The multimedia theory applied is within the business information systems context. The course focuses on the integration of business systems in the assembly of a multimedia program.

### **CMS 3142-3 Advanced Multimedia Business Information Systems Development (3 + 0)**

Prerequisites: CMS 2110 and either CMS 3141 or COM 2450

This course teaches an advanced level of systems analysis and design for multimedia business systems. In a team environment, the student will analyze and evaluate existing multimedia components, and then utilize them to create a multimedia information system. The product will include design of the graphical user interface and the accordant programming environment necessary to interact with databases and other information systems. Students will complete an application project which requires the analysis of a business problem, development of an appropriate program design, creation of an object-oriented microcomputer-based multimedia solution, and a plan for implementation in an organization..

### **CMS 3145-3 Business Application Development with Visual Basic (3 + 0)**

Prerequisites: CMS 2110

Visual Basic is a graphical user interface development tool that has gained widespread acceptance for the development of business applications. Visual Basic for Applications, a subset of Visual Basic, is a standard feature in many current office applications. Together they provide a development environment in which students will learn to develop object-oriented, event-driven GUI business applications. Students will complete an application project that requires the analysis of a business problem, development of an appropriate program design, creation of a Visual Basic based solution, and a plan for implementation in an organization.

### **CMS 3180-3 Business Applications in OOP: C++ (3 + 0)**

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Prerequisite: CMS 3130

This course introduces the student to the concepts of object-oriented programming in a business environment using C++. It includes classes and objects, inheritance and derived classes, polymorphism, virtual classes and functions, and several advanced topics.

### **CMS 3190-3 Business Application and Web Applet Design with Java (3 + 0)**

Prerequisites: CMS 2110

The Java programming language is the first truly platform independent language and has gained widespread acceptance for the development of business applications and web page applets. Students will learn the object-oriented paradigm and use it to develop business and business-related applications and applets in a visual development environment. Students will complete a Java application project that requires the analysis of a business problem, development of an appropriate Java program design, creation of a Java-based solution, and a plan for implementation in an organization.

### **CMS 3220-3 Analysis of Hardware, Software and User Interfaces for Microcomputer Platforms**

**(3 + 0)**

Prerequisite: CMS 2110

The course develops a conceptual understanding of the underlying principles of computer systems hardware, operating systems software and associated use interfaces. These concepts are then applied to the problem of selecting and implementing microcomputer based systems to solve appropriate business problems.

### **CMS 3230-3 Telecommunication Systems (3 + 0)**

Prerequisite: CMS 2110

This course is a study of the transmission of data, voice, and video including: transmission systems and associated hardware and software; types of networks; introduction to the OSI model, LANs and WANs; and applications of networks.

### **CMS 3250-3 Automated Office Systems (3 + 0)**

Prerequisite: CMS 2010

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This course presents an overview of the electronic equipment available for use in business systems. Some of the technologies are word processing, telecommunications, phototypesetting, and local area networks.

### **CMS 3260-3 Systems Development with GUI Development Tools (3 + 0)**

Prerequisite: CMS 2110 or permission of the instructor

This course introduces the student to contemporary systems development tools for the Graphical User Interface (GUI). It includes the structure and processes of the GUI environment, several kinds of GUI design tools, what the tools accomplish (including their capabilities and limitations), and when and where to use a GUI system development tool.

### **CMS 3270-3 Micro Based Software (3 + 0)**

Prerequisite: CMS 2010

A study of microcomputer-based software including advanced concepts of word processing, electronic spreadsheets, database management software, and the introduction of other relevant software packages used in a microcomputer environment. Hands-on experience is included.

### **CMS 3280-3 LAN and WAN Systems for Business (3 + 0)**

Prerequisite: CMS 3230

Presents the technology, architecture, and interconnection of Local Area Networks and Wide Area Networks. The advantages and disadvantages of each technology will be discussed so that well-informed decisions can be made regarding the design of communication networks.

### **CMS 3290-3 Micro User Operating Systems (3 + 0)**

Prerequisites: CMS 2010 and basic computer knowledge

Involves the hands-on use of Advanced DOS, Microsoft Windows, and Novell Netware on IBM/compatible microcomputers.

### **CMS 3310-3 Business Forecasting Methods (3 + 0)**

Prerequisite: CMS 2300

A study of linear and multiple regression, time series forecasting, index number calculation, and analysis.

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### **CMS 3340-3 Advanced Business Statistics (3 + 0)**

Prerequisite: CMS 2300

Study of advanced statistical methods and techniques and their application in business decision-making situations. Topics include: analysis of variance; multiple regression analysis, regression model building; forecasting; non-parametric methods; and decision analysis.

### **CMS 3400-3 Simulation of Management Processes (3 + 0)**

Prerequisite: CMS 3340

A study of computer simulation techniques as applied to resources allocation problems in the business environment.

### **CMS 3610-3 Introduction to Artificial Intelligence for Business (3 + 0)**

Prerequisites: CMS 2010 and proficiency in a programming language

An introduction to the field of applied artificial intelligence/expert systems and its importance in the business environment. Topics include human intelligence and business problem solving, knowledge representation strategies, expert systems design, the knowledge engineering process, robotics, voice recognition systems, and the future of applied artificial intelligence/expert systems in business and industry.

### **CMS 4030-3 Web Site Administration (3 + 0)**

Prerequisites: CMS 3030 or CMS 3190

This course presents the fundamentals of organizing and administering a business web site with multiple clients. Students will learn how to design effective, business-oriented web pages. They will be able to give advice to the users, describe how to put web pages on a server, how to organize the published information, how to plan a business web site, specify the hardware, choose the daemon, and install and configure a server. In addition, the course will cover the security issues of the internet access, the different protection techniques, how to maintain a site, content and interpretation of the log files, and tools and techniques required to run an effective business site.

### **CMS 4050-3 Systems Analysis and Design (3 + 0)**

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Prerequisites: CMS 2110, CMS 3060, CMS 3230 and a course from the Programming Language Group

This course presents the concepts and provides the experience necessary to design a business information system. Current methodologies and technologies will be surveyed and design concepts from prerequisite courses will be reviewed and expanded. This body of knowledge will be applied in a group project to develop the design of a solution to a business information system problem resulting in a complete formal technical design document. The designs will be defended in a formal presentation.

**CMS 4060-3 Advanced Database Systems (3 + 0)**

Prerequisites: CMS 3060 and CMS 2110 (or advanced programming language course); senior standing

This course provides an in-depth understanding of data base management systems. Several commercially available data base systems are examined and compared. Data definition and data manipulation languages will be discussed and the opportunity to design and implement a data base is provided.

**CMS 4070-3 Systems Development and Implementation (3 + 0)**

Prerequisites: CMS 4050 and an advanced programming language, senior standing

This course is designed to provide a realistic environment for a student to develop and implement a system from a design. The student will write programs, convert data, test, and produce a working system.

**CMS 4160-3 Advanced Programming Seminar (3 + 0)**

Prerequisite: CMS 3110 or CMS 3140

Major business-related projects will be analyzed, coded, and tested.

**CMS 4260-3 Database Administration (3 + 0)**

Prerequisite: CMS 3060

This course covers the functions and responsibilities of the Database Administrator (DBA) in an organization with an integrated, shared Relational Database Management System (RDBMS). The course will focus on the technical requirements of the DBA including enrolling new users, creating

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the database, backup and recovery of data, security measures, implementing data integrity, and tuning the database.

**CMS 4280-3 Network Installation and Administration (3 + 0)**

Prerequisite: CMS 3280

This course presents the knowledge and skills necessary to install the network operating system and to perform competently in the role of a network administrator.

**CMS 4390-3 Case Studies in Management Science (3 + 0)**

Prerequisites: CMS 3270 and CMS 3340, senior standing

This course involves a study of the implementation of management science models and their interrelationship to other factors in an information system.

**CMS 4410-3 Management Information Systems (3 + 0)**

Prerequisites: CMS 2110 and MGT 3000

This course provides an overview of management information systems, managerial decision making practices and styles, and requisite information needs. International information concepts, the influence of national cultures on decision making, information use, and on various system design approaches are examined. The course addresses the practical aspects of the development of management information systems and decision support systems.

**Technical Communications****COM 2400-3 Basic Video Editing (2 + 2)**

This is an introductory course that covers the fundamental principles, aesthetics, and procedures necessary to perform linear videotape editing. Students will learn how to perform correct video edits, the importance of aesthetics in editing, and how to translate editing theory to practical applications.

**COM 2420-3 Basic Corporate Videotape Production (2 + 2)**

This course serves as an introduction to the fundamentals of basic corporate videotape production terms and techniques. Students will produce single-camera, remote productions.

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### **COM 2430-3 Introduction to Technical Media (3 + 0)**

This course serves as an introduction to media used for industrial applications. Basic techniques, terminology, equipment characteristics, media selection, advantages, and disadvantages are studied.

### **COM 2450-3 Basic Multimedia Production (2 + 2)**

Prerequisite: CMS 1010 or CSI 1010 or permission of instructor.

This course serves as an introduction to the fundamentals of basic multimedia production. The student will produce a multimedia program.

### **COM 2460-3 Presentation Graphics (2 + 2)**

The student will design and produce computer graphic images for use in informational presentations, multi-image programs, computer screen show presentations, and print publications.

### **COM 2480-3 Corporate Animation (2 + 2)**

This course introduces students to the production of 2-D and 3-D animation for the corporate applications. The course focuses on techniques used to create objects and move them in order to communicate a specific message. Students will use hardware and software solutions for the creation of animations.

### **COM 2600-3 Basics of Technical Style (3 + 0)**

This course provides students with the requirements of technical style as they differ from standard English usage. Emphasis is placed on signs, symbols, abbreviations, acronyms, numerals, and handling of mathematical computations. The course is required for all majors in the writing and editing emphasis and the industrial communication emphasis who do not pass the initial screening test.

### **COM 2610-3 Introduction to Technical Writing (3 + 0)**

Prerequisite: ENG 1010 or permission of instructor

This course offers practice in the specific techniques required for writing in the areas of technology and science; particular emphasis is placed on report formats for government, science and industry, and the various audiences requiring technical information. Course incorporates the handling of statistical and other computational elements, as well as graphic components.



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### **COM 2720-3 Introduction to Communication Concepts and Systems (3 + 0)**

This course introduces the students to the major communication concepts and systems used by industry, government, science, engineering, and the media in transmitting and receiving information. It prepares the student to identify strengths and weaknesses in the communication process.

### **COM 3310-3 International Technical Communications (3 + 0)**

Prerequisite: junior standing or permission of instructor

This course introduces students to the requirements of international technical communications. It defines the characteristics of an international requirements of technical communicator and provides students with opportunities to practice necessary skills.

### **COM 3330-3 Technical Writing for Translation (3 + 0)**

Prerequisite: COM 2610 or permission of instructor.

This course prepares technical writers, editors, and scriptwriters to develop text and scripts in a manner that facilitates translation for international use.

### **COM 3350-3 International Technical Media (3 + 0)**

Prerequisite: COM 2430 or permission of instructor

This course covers the technology required to produce and distribute international technical media. The course content deals with fiber optics, satellite sending and receiving systems, global standards and evolving technologies.

### **COM 3420-3 Intermediate Corporate Videotape Production (1 + 4)**

Prerequisite: COM 2420 or permission of instructor

This course teaches intermediate videotape production terms and techniques. Students will write, produce, and direct a videotape program that has a specific corporate purpose and audience. Students will schedule a remote production and edit a videotape program.

### **COM 3440-3 Corporate Scriptwriting for Film and Television (3 + 0)**

Prerequisite: ENG 1010 or permission of instructor

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This course stresses the principles of corporate film and television scriptwriting, organization, and writing of story outlines, treatments, formats, and scripts. It provides training in the fundamentals of visual and audio applications and production viewing and analysis of film and television productions.

### **COM 3450-3 Intermediate Multimedia Production (2 + 2)**

Prerequisite: COM 2450 or permission of instructor

This course teaches intermediate multimedia production terms and techniques. The students will write a script, create graphic and audio elements, and produce and direct a multimedia program that has a specific corporate/educational purpose and audience.

### **COM 3470-3 Writing for Multimedia (3 + 0)**

Prerequisite: ENG 1010 or permission of instructor

This course stresses the techniques of scriptwriting for multimedia. The student will create content outlines, storyboards, flowcharts and a variety of scriptwriting formats. The student will write narration and dialogue and create an aural scene using sound effects and music.

### **COM 3510-3 Corporate Communications (3 + 0)**

Prerequisite: COM 2720, equivalent work experience, or permission of instructor

This course focuses on the study of corporate communications, stressing information flow within corporations.

Emphasis is placed on the structure and function of corporate messages of a technical nature in business and government. Practice in solving typical communication problems is included.

### **COM 3520-3 Communication of Power and Authority (3 + 0)**

Prerequisite: sophomore standing or three years full-time employment, or permission of instructor

This course emphasizes the ways decisions are presented and how the image of power and authority are transmitted by a variety of verbal and nonverbal techniques. The student learns to use, recognize, and interpret oral and written power language, signs, symbols, and gestures.

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### **COM 3530-3 Corporate Cultures (3 + 0)**

Prerequisite: COM 2720, equivalent work experience or permission of instructor

This course covers the communication patterns and networks that occur in corporations and determines the cultures and climates of those organizations. Students learn to read and interpret the hidden messages within a corporation's communication and to evaluate a corporation's culture in relation to their own personalities.

### **COM 3550-3 Administration of Corporate Publications (3 + 0)**

Prerequisites: COM 2610 and COM 3530 or permission of instructor

This course covers the contents, tone, purpose, intended audiences, and economic considerations of a variety of corporate publications produced by technical writers. The purpose of the course is to enable the student to administer a technical writing unit that must produce a variety of publications in addition to specialized, product related documentation.

### **COM 3560-3 Variable Topics in Corporate Communications (3 + 0)**

Prerequisite: COM 2720 or permission of instructor

This course focuses on topics of current interest to technical communicators and other persons concerned with communication activities in corporations and government agencies. The content of the course changes from semester to semester to reflect current concerns in the discipline. This course may be repeated for credit under different titles.

### **COM 3610-3 Advanced Technical Writing (3 + 0)**

Prerequisite: COM 2610 or equivalent work experience

This course covers the advanced study of the techniques and principles of technical writing as applied to reports, manuals, and proposals, using formats common to government, science, and industry. It includes the study of report design, audience analysis, report use, and writer intent.

### **COM 3620-3 Technical Editing (3 + 0)**

Prerequisite: COM 2600 or permission of instructor

This course presents techniques for editing technical publications including all levels of edit, document management and collaboration with writers.

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### **COM 3630-3 Designing Technical Publications (3 + 0)**

Prerequisite: COM 2610 or permission of instructor

This course emphasizes the need for design excellence to enhance the usability of publications that present technical information. It focuses on the use of typography, formats, graphics, papers and inks, binding, as well as collaborative efforts in technical publication production.

### **COM 3640-3 Writing Computer-User Software Documentation (3 + 0)**

Prerequisite: COM 2610 or CMS 2010 or CSS 1010

This course prepares the student to write instruction manuals for computer software for users who are not computer experts. The course emphasizes audience analysis, vocabulary, format and style, use of graphics, writing techniques, and production.

### **COM 3650-3 Writing Hardware Documentation (3 + 0)**

Prerequisite: COM 2610 or permission of instructor

This course prepares the student to write instructional manuals including maintenance, operations, and service manuals. The course emphasizes audience analysis, vocabulary, format and style, use of graphics, writing techniques, and productions.

### **COM 3660-3 Variable Topics in Industrial and Technical Communications (3 + 0)**

Prerequisite: COM 2610 or permission of instructor

This is a current topics course that studies communication models and techniques for reporting industrial and governmental information to specialized and general audiences to advance corporate or agency goals and interests. The content of the course will change from semester to semester. It may be repeated for credit.

### **COM 3670-3 Writing for the Environmental Industry (3 + 0)**

Prerequisites: COM 2610 or permission of instructor

This course presents communication models and techniques for reporting industrial and governmental information related to the environment for specialized and general audiences.

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### **COM 3680-3 Internet Document Design for Technical Communicators (3 + 0)**

Prerequisites: CMS 1080, equivalent work experience or permission of instructor

This course prepares students to plan, research, write, revise and distribute documents using electronic media. The course emphasizes the use of the World Wide Web and other elements of the Internet as a means of making documents available to specified audiences.

### **COM 3780-3 Communications' Law (3 + 0)**

Prerequisite: six hours of COM, JRN, or business courses, or permission of instructor

This is a study of legal practices that impact professional communicators. It places special emphasis on such areas as the federal and state court systems, copyright, trademarks, the law of privacy, and federal trade regulations as they impact the print media.

### **COM 4380-3 Communications' Law - Technological Media (3 + 0)**

Prerequisite: COM 3780 or permission of instructor

The course will emphasize U.S. and international law relating to the Internet, Web, and satellite transmissions relevant to Technical Communications in such areas as copyright, privacy, adult materials, fraud, security, and penalties.

### **COM 4400-3 Nonlinear Video Editing (3 + 0)**

Prerequisite: COM 2400 or permission of instructor

This course focuses on techniques, principles and aesthetics that are necessary for proper editing of video programs. Students will learn the benefits of working with nonlinear video editing systems and will edit exercises which incorporate a variety of techniques and reinforce specific editing skills.

### **COM 4410-3 Budgeting and Planning for Audio-Visual Productions (3 + 0)**

Prerequisites: senior standing, 12 hours COM designated courses (nine of which must be upper-division), and satisfaction of all Level I and Level II General Studies course requirements

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Methods and techniques for budgeting and planning. Viewing and analysis of A-V programs, scheduling for production in terms of time, equipment and cost. Evaluation of finished programs. (Senior Experience)

**COM 4420-3 Advanced Videotape Production (2 + 2)**

Prerequisite: COM 2420 and COM 3420, or permission of instructor

This course covers advanced video production techniques including editing, lighting, graphics, scripting, and audio recording. Students will formulate and track budgets, plan and execute remote shoots, and carry out all aspects of corporate video production. Students will obtain outside clients for the final videotape project.

**COM 4430-3 Directing and Lighting for Nonbroadcast Video (3 + 0)**

Prerequisites: COM 2420 and COM 3420 or permission of instructor

This course presents various directing and lighting techniques used in the production of nonbroadcast video programs. Students will learn the theories and principles used to direct and light for single camera, remote productions.

**COM 4440-3 Advanced Corporate Scriptwriting (3 + 0)**

Prerequisite: COM 3440 or permission of instructor

Students will examine advanced aspects of scriptwriting. Audience analysis and program goals will be studied in order to determine content and conceptual approaches. A variety of writing techniques and forms will also be explored in written assignments. Students will write at least three scripts, one of which requires client approval.

**COM 4450-3 Advanced Multimedia Production (2 + 2)**

Prerequisite: COM 3450

This course identifies and develops the skills that are required to manage and produce multimedia projects. The course covers project evaluation and development, budgets, production elements, technology trends and project management.

**COM 4630-3 Costing and Planning Technical Publications (3 + 0)**

Prerequisites: junior standing or 12 hours of COM-designated courses of which nine hours are upper level

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This course focuses on methods and techniques for planning, scheduling and budgeting technical publications. Students analyze large publication projects to determine schedule, budget, resources, estimating, productivity, and cost analysis.

### **COM 4760-1-12 Advanced Internship in Technical Communications (0 + 3-36)**

Prerequisites: 12 semester hours of COM designated courses and the recommendations of two technical communications faculty members

This advanced, on-the-job learning experience in a technical communications emphasis enables students to work in their chosen career fields. An approved plan from a cooperating organization serves as the course outline for a specific internship, but the outline must fulfill the general requirements of the course. The student must merit the internship experience and provide an acceptable plan of work before being granted permission to register for this course.

### **COM 4790-3 Senior Seminar in Technical Communications (3 + 0)**

Prerequisites: senior standing and 12 or more hours of COM or AES designated courses, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements

This course gives the advanced student an opportunity to write a paper of publishable quality and present a seminar based on in-depth research or an application of state-of-the-art practices in an area of technical writing and editing, organizational, or technical media emphases. (Senior Experience)

## **Computer Science**

Computer Science courses use the CSI and CSS prefixes and are taught through the Department of Mathematical and Computer Sciences.

### **CSI 1300-4 Computer Science 1 (4 + 0)**

Prerequisites: permission of department

This is the first course in the computer science core sequence. Students will learn a modern programming language and the basic skills needed to analyze problems and construct programs for their solutions. The emphasis of the course is on the techniques of algorithm development, correctness and programming style. Students are also introduced to the fundamentals of software engineering and the software development life cycle.

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### **CSI 2300-4 Computer Science 2 (4 + 0)**

Prerequisite: CSI 1300 with a grade of "C" or better, or permission of instructor

This course, a continuation of CSI 1300, further emphasizes the concepts of the software development cycle and introduces the concept of an abstract data type (ADT). The topics covered include linked-lists, trees, stacks, queues, classes, recursion, and a variety of data representation methods. Further topics in software engineering and programming style as well as algorithms for sorting and searching are included.

### **CSI 2400-4 Computer Organization and Assembly Language (4 + 0)**

Prerequisite: CSI 1300 with a grade of "C" or better, or permission of instructor

This course is a study of the internal organization of computing machinery and the hardware elements essential to the computation process. Various forms of computer organization are studied and analyzed. The vehicle for exploration of the computer hardware is Assembly language that provides specific instructions for the direct manipulation of the memory registers and control flags associated with virtually all modern computers.

### **CSI 3060-4 Computer Architecture and Systems Programming (4 + 0)**

Prerequisites: CSI 2300 and CSI 2400 with grades of "C" or better, or permission of instructor

In this course, computer organization concepts are extended to include advanced architectural concepts. These concepts include set associative caches, advanced pipelining concepts for superscalar and superpipelined processors, bus interface concepts, microprogramming concepts, parallel architectures, multiprocessing architectures, memory organization architectures, interrupt architectures, and bus data transfer concepts. Supporting systems programming topics are also covered as a basis for studying operating systems.

### **CSI 3100-4 Discrete Mathematics (4 + 0)**

Prerequisites: MTH 2410 and CSI 2300 with a grade of "C" or better, or permission of instructor



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Discrete mathematical structures including sets, digraphs, Boolean algebra, relations, finite state automata, regular languages, and error correction codes are covered along with their applications to areas of computer science.

### **CSI 3120-4 Organization and Structure of Operating Systems (4 + 0)**

Prerequisites: CSI 3060 with a grade of "C" or better, or permission of instructor

This course is an introduction to the design, development, and implementation of modern computer operating systems, including network systems. The topics covered include input/output processors, interrupt handling, system resource management, multitasking, communication between machines and processes, and computer system security.

### **CSI 3210-4 Principles of Programming Languages (4 + 0)**

Prerequisites: CSI 2300 and CSI 3100 with grades of "C" or better, or permission of instructor

This course traces the evolution of programming languages and identifies and analyzes the contributions made by several significant languages and their successors. Specific issues of programming language implementation such as creation of activation records for block-structured languages and static and dynamic scoping as methods for defining program object visibility are studied in depth. All four of the modern programming language paradigms (procedural, functional, object-oriented, and logical) will be reviewed. The design, evaluation, and implementation of programming language processors such as interpreters, compilers, and translators are studied.

### **CSI 3280-4 Object-Oriented Software Development (4 + 0)**

Prerequisite: CSI 2300 with a grade of "C" or better, or permission of instructor

This is an upper-division software development class that focuses on the object-oriented programming paradigm. Object-oriented analysis, design, and development will be explored in some depth with emphasis on object definition, abstraction, polymorphism, encapsulation, and inheritance. Abstract class definitions are developed for a number of common objects and data structures, and derivative classes and subclasses are developed from these definitions. Students will develop a thorough understanding of an object-oriented programming language such as C++ or Smalltalk.

### **CSI 3300-4 Foundations of File Structures (4 + 0)**

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Prerequisites: CSI 2300 and CSI 2400 with grades of "C" or better, or permission of instructor

This course explores the fundamental concepts associated with external storage media and the methods of organization, storage, and retrieval of data on peripheral devices. Various file-structuring schemes are compared and contrasted in order to develop an in-depth understanding of the most efficient methods for given situations. Students will gain experience with internal storage management and a wide variety of sequential and random access methods of file organization and structure.

## **CSI 3310-4 Fundamentals of Database Systems (4 + 0)**

Prerequisites: CSI 3100 and CSI 3300 with grades of "C" or better, or permission of instructor

This course is the second in a two-course series on the external organization and retrieval of information. It builds on the base laid in CSI 3300, Foundations of File Structures, by extending the capabilities of the students into the area of developing database management systems. Students will study the three principal models for database organization (relational, hierarchical, and network). They will also be introduced to the major issues in database management systems development and operation. The emphasis will be on the relational model because of its widespread popularity among computer users. Examples will be constructed using the object-oriented paradigm.

## **CSI 3510-4 Computer Graphics (4 + 0)**

Prerequisites: CSI 2300 with a grade of "C" or better, MTH 1410, and either MTH 2140 or MTH 3140, or permission of instructor

This course is a survey of graphics hardware and software. The topics covered include raster scan displays, windowing transformation, algorithms for vector generators, clipping, area fill, space transformations in two and three dimensions, perspective viewing methods, and graphical input. Other topics will be chosen from hidden surface processing, curve and surface modeling, fractals and animation. Programming projects will be done using a standard graphics function library. This is a course in the principles of computer graphics; it is not a course in using existing commercial software for artistic design or drafting. Students wanting design or drafting courses should consult offerings of the Art Department.

## **CSI 3700-4 Computer Networks (4 + 0)**

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Prerequisites: CSI 2300 and CSI 2400, both with a grade of "C" or better, or permission of instructor

This course provides a comprehensive study of computer networks, from the physical aspects to the high-level application protocols with which most people interact. The software that provides the communication is emphasized. The methods for creating connections, making sure they are error free and in order, performing routing, and creating client/server interactions are discussed.

**CSI 4120-4 Foundations of Artificial Intelligence (4 + 0)**

Prerequisite: CSI 3210 with a grade of "C" or better, or permission of instructor

This course includes a study of the theoretical foundations of artificial intelligence, including the algorithms and techniques and programming languages used to design and implement intelligent systems. The topics covered include search strategies, resolution theorem proving, rule-based deduction, expert systems architecture, plan-generating systems, analysis of languages, and machine learning. LISP and PROLOG, the most commonly used AI programming languages, will be covered and used for programming assignments.

**CSI 4250-4 Software Engineering Principles (4 + 0)**

Prerequisite: CSI 3300 with a grade of "C" or better, COM 2610, PHI 3360, and senior standing, or permission of instructor

This course focuses on the software development life cycle. Special emphasis is placed on the earlier phases in the life cycle that precede the actual writing of the code, and the later phases in which the software is tested and evaluated after it is written. Finally, the post-implementation phases that represent the eighty percent of the life cycle during which the software is evolving as it is in use are studied in-depth. Students will perform various role playing activities in which they represent users and implementors during these phases of the development process.

**CSI 4260-4 Software Engineering Practices (4 + 0)**

Prerequisites: CSI 4250 with a grade of "C" or better

This course is a continuation of CSI 4250, Software Engineering Principles. Students will work in teams of 4 to 6 and apply the principles to the development of a real-world project. Projects will be solicited from industry

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and progress will be evaluated in conjunction with industry representatives.  
(Senior Experience)

### **CSI 4300-4 Advanced Data Structures and Algorithm Analysis (4 + 0)**

Prerequisites: CSI 3100, CSI 3300 with grades of "C" or better and MTH 3210, or permission of instructor

This course continues the study of data structures begun in CSI 2300. Extensive concentration is placed on the concept of the abstract data type (ADT). A wide variety of abstract data types are studied including linear and nonlinear ADTs. The emphasis is on the design, analysis, and evaluation of efficient algorithms for a wide variety of common computing problems.

### **CSI 4520-1-4 Advanced Computing: Variable Topics (1-4 + 0)**

Prerequisite: permission of instructor

This course will include further topics in computer science and its applications. Topics will be chosen from analysis of algorithms, compiler design, simulation, artificial intelligence, or other chosen by the instructor. This course may be repeated for credit under different titles.

## **Computer Science Studies**

Computer Science courses use the CSI and CSS prefixes and are taught through the Department of Mathematical and Computer Sciences.

### **CSS 1010-3**

#### **(CMS 1010) Introduction to Computers (3 + 0)**

This course is designed for students who wish to use a microcomputer in their academic pursuits and their career. The student will learn how to use a personal computer with application software featuring word processing, spreadsheets, file management, graphics, electronic communications, and thesaurus/spelling checker. This course also reviews the historical, societal, ethical, and technological aspects of computers. Credit will be granted for only one prefix: CSS or CMS.

#### **CSS 1027-2 BASIC Programming (2 + 0)**

Prerequisite: one year of high school algebra or permission of instructor

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This is an introductory computer programming course in which the major elements of the BASIC language are taught. Students will write computer programs to solve problems selected from mathematics and other sciences.

### **CSS 1080-3**

#### **(CMS 1080) The World Wide Web, the Internet and Beyond (3 + 0)**

This course is for anyone who uses or wants to access the World Wide Web or use the Internet. Students will master a set of basic skills including using electronic mail, logging in to remote computers, obtaining online documents and software, and using a browser like Netscape to search and explore the World Wide Web for information. Students will also learn the fundamentals of web page construction. Credit will be granted for only one prefix: CSS or CMS.

#### **CSS 1247-4 Introduction to Programming: Visual Basic (4 + 0)**

Prerequisites: CSS 1010 or equivalent knowledge and satisfaction of the General Studies Level I Mathematics requirement or permission of instructor

This is an introductory computer programming course in which the major elements of Visual Basic are taught. Visual Basic is one of Microsoft's versions of Basic and was created to specialize in easy graphical user interface development. It is an object-based programming language with many characteristics of object oriented programming languages. Students will write programs to solve problems selected from a variety of applications.

#### **CSS 1427-2 Introduction to UNIX (2 + 0)**

Prerequisite: CSI 1300 or previous knowledge of a programming language

This course presents fundamental UNIX concepts, including file system organization, standard commands for file manipulation, utility programs, filters, editors, basic shell programming, and remote access using telnet and file transfer commands such as ftp. The course emphasizes skill acquisition to perform common operations on UNIX systems.

#### **CSS 1607-4 Java Programming Fundamentals (4 + 0)**

Prerequisites: CSS 1010 or equivalent knowledge and satisfaction of General Studies Level I Mathematics requirement or permission of instructor

This course offers an introduction to programming in the Java programming language. The course will introduce Java applications as well as the basics of

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Java applets that can be included in a web document. Students will write Java programs and create a web page which includes a Java applet.

### **CSS 2227-3 The C Programming Language (3 + 0)**

Prerequisites: CSI 1300 or CSS 1247 or MTH 1510 or previous knowledge of a programming language, and MTH 1110 or permission of instructor

The course presents a study of the C programming language and its applications in computing with emphasis on the design and development of efficient algorithms. C is one of the currently more popular programming languages because it is particularly well suited to the development of systems software.

### **CSS 2257-4 The C++ Programming Language (4 + 0)**

Prerequisites: CSI 1300 or MTH 1510 or previous knowledge of a programming language, and MTH 1110 or permission of instructor

This course presents a study of the C++ programming language and its applications in computing with emphasis on the design and development of efficient algorithms and object-oriented programming.

### **CSS 3607-4 Advanced Web Programming: Java and Perl (4 + 0)**

Prerequisites: CSI 1300 or CSS 1247 or CSS 1607 or permission of instructor

This course presents programming for the World Wide Web. Topics include server-side CGI programming using Perl as well as programming in the Java programming language. The course will introduce stand-alone Java applications, threads, Java applets that can be included in web documents, building user interfaces using the Java AWT library and computer animation using Java. Students will develop web pages that include forms processed by a CGI program written in Perl, write Java programs and create web pages that include Java applets.

### **CSS 3707-4 Advanced Multimedia Programming (4 + 0)**

Prerequisites: CSI 1300 or CSS 1247 or permission of instructor

This is an advanced course in multimedia programming. The full power of a contemporary multimedia authoring language is explored. Topics include data structures, manipulating text strings and full text editing, advanced control structures and subroutines, file input/output, advanced animation techniques, dynamic data exchange (DDE), object linking and embedding

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(OLE) and the use of dynamic link libraries (DLL's) as well as methods for handling such multimedia elements as sound, video and animation.

## **Economics**

### **ECO 2010-3 Principles of Economics—Macro (3 + 0)**

Prerequisites: satisfaction of the Level I Mathematics requirement and either ENG 1010 or the Level I Communications course

Introduction to the principles of economics, emphasizing an analysis of the economy as a whole. Topics include the methods used in economics, national income accounting, income determination, and an analysis of monetary and fiscal policies used by government to combat inflation and unemployment, and preliminary international trade analysis. (General Studies—Level II, Social Sciences)

### **ECO 2020-3 Principles of Economics—Micro (3 + 0)**

Prerequisites: satisfaction of the Level I Mathematics requirement and either ENG 1010 or the Level I Communications course

Introduction to the principles of economics, with an emphasis on individual economic units. Topics include consumer choice, production theory, theory of the firm, problems on economic efficiency, and problems of economic concentration. (General Studies—Level II, Social Sciences)

### **ECO 3010-3 Intermediate Microeconomic Theory (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

Production, price, and distribution theory. Value and distribution theories under conditions of varying market structures. Topics include consumer theory; competitive, oligopoly, and monopoly pricing and output behavior; pricing or factors of production and welfare theory.

### **ECO 3020-3 Intermediate Macroeconomic Theory (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

A survey of major aggregate economic models. Emphasis is on the role of consumption, investment, and government decisions on aggregate economic activity. Topics include an analysis of consumption and investment decisions, income determination models, monetary and fiscal policy, and economic growth.

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### **ECO 3100-3 Money and Banking (3 + 0)**

Prerequisite: ECO 2010

The study of money as a policy variable affecting economic activity. Money is examined both in its role in exchange and as an instrument of economic policy. The Federal Reserve System, money supply, money demand, and their respective effects on macroeconomic activity are stressed.

### **ECO 3150-3 Econometrics (3 + 0)**

Prerequisites: ECO 2010, ECO 2020 and MTH 1210 or CMS 2300 or permission of instructor

Application of mathematical techniques to problems in economics. Emphasis is on application rather than computational methods of mathematical rigor. The problems of acquiring, measuring, and using economic data are examined.

### **ECO 3200-3 Economic History of the U.S. (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

Historical trends in American economic organizations and institutions and their development from colonial times to present. Topics include problems of national and regional industrial development, economic stability, and trends in income distribution.

### **ECO 3250-3 Labor Economics (3 + 0)**

Prerequisite: ECO 2020

The study of the topics related to the supply of labor, the allocation of labor among uses, the extent and incidence of unemployment, and the determination of wages. Concentration is on application of economic theory to understand the behavior of labor and problems of labor markets.

### **ECO 3300-3 State and Local Finance (3 + 0)**

Prerequisite: ECO 2020

The study of the topics related to state and local fiscal problems. Topics include demand for state and local government services, analysis of state and local tax instruments and their incidence, inter-governmental fiscal coordination, program budgeting and regulation.



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### **ECO 3350-3 Urban Economic Analysis (3 + 0)**

Prerequisite: ECO 2020

Analysis of the structure of urban economic activity and the economic aspects of urban problems. Particular emphasis is on urban poverty, location and differential growth rates of cities, urban transportation problems, housing problems, and selected problems in local government finance.

### **ECO 3450-3 Environmental Economics (3 + 0)**

Prerequisite: ECO 2020

An economic analysis of the causes and consequences of environmental degradation and of public policy measures designed to preserve, protect, and enhance human environments.

### **ECO 3500-3 Managerial Economics (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

Deals with the application of economic theory to the decision-making process faced both by private and public enterprise. The major emphasis is to provide the theory and tools essential to the analysis and solution of those problems that have significant economic consequences, both for the firm and the society at large.

### **ECO 3550-3 The International Economy (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

Fundamental economic concepts for understanding international economic relationships. Topics include international trade theory, capital movements, international monetary institutions, balance of payments adjustments, and the impact of trade policies on economic development and growth.

### **ECO 4150-3 Mathematical Economics (3 + 0)**

Prerequisite: ECO 3150 or permission of instructor

Mathematical analysis of economic theory. Topics include a wide range of mathematical techniques applied to economic topics such as theory of choice, externalities and public goods, general equilibrium, growth, and stability.

### **ECO 4250-3 Economics of Collective Bargaining (3 + 0)**

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Prerequisites: ECO 2010, ECO 2020

An examination of the economic aspects and effects of labor unions and collective bargaining. Topics include models of union behavior; bargaining theories; industrial wage differentials; economic consequences of public unionism and the impact of trade unions on employment, output, and inflation.

**ECO 4300-3 Public Finance (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

An analysis of the effects of taxation, government expenditures, fiscal policy, and public debt on resource allocation and income distribution. Topics include taxation, pricing of public services, intergovernmental fiscal relations, and macroeconomic issues in public finance.

**ECO 4400-3 Industrial Organization and Public Policy (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

An examination of the structure, conduct, and performance of American industries. Questions of public policy in dealing with problems created by industrial concentration including the regulation of public utilities are examined. Industries are measured against the yardstick of the public interest.

**ECO 4450-3 International Trade and Finance (3 + 0)**

Prerequisites: ECO 3550 and FIN 3100

General equilibrium analysis provides foundations for international finance, the composition of international transactions, and determination of real national income and its distribution among factors of production. This theoretical framework is then applied to a host of economic problems. The alternative approaches to balance of payments equilibration are then explored in depth.

**ECO 4500-3 Business and Economic Forecasting (3 + 0)**

Prerequisites: ECO 2010

The general approaches to predicting macroeconomic activity and how these techniques are implemented into the management decision process. Topics include data acquisition, quantitative techniques, business cycle theories and macroeconomic forecasting, industry and sales forecasting.

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### **ECO 4550-3 Comparative Economic Systems (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

An institutional and theoretical analysis of alternative economic systems. Topics include an analysis of the theoretical Marxian system, as well as a comparison of capitalism, socialism, and communism.

### **ECO 4600-3 History of Economic Thought (3 + 0)**

Prerequisites: ECO 2010, ECO 2020, senior standing, and satisfaction of all Level I and Level II General Studies course requirements

Survey of the development of economic thought from ancient to modern times. Topics include the classical school from Smith through Mill; Marxian economics; the marginalists; institutional economics; and Keynesian Macroeconomics. (Senior Experience)

### **ECO 4650-3 Advanced Monetary Theory (3 + 0)**

Prerequisite: ECO 3020

An analysis of monetary models and money as a policy determinant and its place in national and international economics. Topics include the importance of interest rates, the effectiveness of monetary and fiscal policy, examination of portfolio balance models, and international models.

### **ECO 4700-3 Law and Economics (3 + 0)**

Prerequisites: ECO 2010, ECO 2020

This course focuses on the interaction between economics and the law. Topics include the effect of economic theory on the development of common law, the effect of legal analysis on economic institutions, economic analysis of law, and selected topics in negotiation.

### **ECO 4750-3 The Economic Approach to Politics (3 + 0)**

Prerequisite: ECO 2020

The course will focus on the use of economic theory to analyze political decision making. This rational choice theory approach will examine such topics as voting rules and behavior, legislatures, bureaucracies, courts, interest groups and public policy outcomes.

## **Education**

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### **Secondary Education Courses**

#### **EDS 2680-1 Portfolio Development Workshop (1 + 0)**

Students learn to identify, analyze, discuss, and document learning gained through experience. Students integrate prior experiential learning with current educational needs and goals. Basic principles of adult learning and developmental theory are introduced as they apply to the student's experience. Students will prepare a prior-learning portfolio. Those who are interested may develop this portfolio into an application for credit for prior learning.

#### **EDS 3110-3 Processes of Education in Multicultural Urban Secondary Schools (3 + 0)**

Prerequisite: upper-division standing or permission of instructor and a minimum of four courses completed in major

Corequisite: Must be taken concurrently with EDS 3120

Includes an analytical assessment of teaching/learning processes, with special emphasis on multicultural urban secondary schools. Addresses issues of human relations and classroom management to meet individual students needs in diverse contexts. Special emphasis will be placed on the roles that the teacher as a decision-maker must play in urban schools to meet the educational needs of learners from multicultural and diverse backgrounds. (Multicultural)

#### **EDS 3120-3 Field Experiences in Multicultural Urban Secondary Schools (1 + 4)**

Prerequisite: upper-division standing or permission of instructor and a minimum of four courses completed in major

Corequisite: Must be taken concurrently with EDS 3110

Provides the teacher candidate with an opportunity to apply coursework to making appropriate decisions in multicultural urban secondary schools.\* During this 60-hour field placement, teacher candidates learn about learners, their schools, and their communities. Weekly seminars address the decisions teachers make to meet the diverse educational needs of the student. Teacher candidates reflect upon educational issues with peers and instructor during a one-hour session weekly.

*\*A school must have a sizable minority student population.*

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### **EDS 3200-3 Educational Psychology Applied to Teaching (3 + 0)**

Prerequisites: EDS 3110 and EDS 3120 or permission of instructor and satisfactory completion of Level I General Studies course requirements

Emphasis on making appropriate decisions to meet the developmental needs of diverse children and adolescents. The teacher candidate develops professional teaching skills needed to establish an effective classroom group and to integrate participation of other school professionals and parents in meeting student needs. Students apply theory to educational practice as they investigate psychosocial, cognitive, and moral development; student characteristics; assessment; learning theories; student motivation; and classroom management. (General Studies—Level II, Social Sciences)

### **EDS 3210-3 Secondary School Curriculum and Classroom Management (3 + 0)**

Prerequisites: EDS 3110, EDS 3120; EDS 3200 (may be taken concurrently with EDS 3210)

Corequisite: EDS 3220. Math teacher candidates must take MTL 3630 concurrently with EDS 3210 and EDS 3220.

Teacher candidates will convert theoretical instruction in teaching methodologies into practical applications in simulated classroom environments. A variety of models of instruction and approaches to classroom management are modeled and designed. From these, teacher candidates develop a range of lessons and techniques to meet the educational needs of diverse learners. In addition, self, peer, and instructor review and assessment of student experiences will be used to promote teacher renewal and improve decision-making for teaching to standards.

### **EDS 3220-3 Field Experience in Teaching, Materials Construction and Classroom Management (1 + 4)**

Prerequisites: EDS 3110 and EDS 3120

Corequisite: Must be taken concurrently with EDS 3210. Math teacher candidates must take MTL 3630 concurrently with EDS 3210 and EDS 3220.

Integrates the content, theory, and conceptual aspects of academic and professional teacher education with experience in secondary schools. During this 60-hour field placement, teacher candidates apply a variety of technical skills to facilitate student learning and maintain positive relationships with colleagues and parents. Teacher candidates apply the principles of teaching, assessment, and classroom management to make appropriate and equitable

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decisions for diverse groups of learners and facilitate their progress toward content standards. A weekly seminar is held to discuss each student's experiences and assess progress toward professional teaching standards.

### **EDS 3222-2 Field Experience in Mathematics Teaching, Materials Construction and Classroom Management (1 + 2)**

Prerequisite: EDS 3110 and EDS 3120

Corequisite: Math teacher candidates must take MTL 3630 concurrently with EDS 3210 and EDS 3220

This course integrates the content, theory, and conceptual aspects of academic and professional teacher education with experience in secondary schools. During this 30 hour field placement, teacher candidates apply a variety of technical skills to facilitate student learning and maintain positive relationships with colleagues and parents. Teacher candidates apply the principles of teaching, assessment, and classroom management to make appropriate and equitable decisions for diverse groups of learners and facilitate their progress toward content standards. A weekly seminar is held to discuss each student's experiences and assess progress toward professional teaching standards.

### **EDS 4290-6, 8, 12 Student Teaching and Seminar: Secondary 7–12 (1 + 12.5, 17.5, 27.5)**

Prerequisites: completion of all requirements of the teaching major and the Secondary Education Program

A supervised 6-, 8-, or 13-week field experience in an accredited public or private secondary school, providing increasing responsibility for the teaching, supervising, and evaluating of an identified group of learners, grade levels 7–12. Regularly scheduled observations/seminars by appointed college supervisors are part of the field experience requirement. Unless your program specifically requires 6 or 8 credits, you should sign up for 12 credits. (Senior Experience)

### **Educational Technology**

### **EDT 3610-1–3 Introduction to Educational Technology (.5–1 + 1–4)**

This course is designed to prepare teacher candidates to make decisions regarding the role of technology in support of content standards, learning, and assessment in early childhood through 12th grade classrooms. Teacher candidates become proficient in beginning, intermediate, or advanced skills and specialized content area/grade level applications. They select, operate,

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and use media, computing, Internet, and related technologies to facilitate teaching/learning, communication, professional development and productivity to meet the educational needs of diverse groups of learners.

This course can be taken for 1 credit (early childhood only), 2 credits (minimum required to fulfill elementary and secondary program requirement in technology) or 3 credits (students elect 3 credits to provide advanced or specialized technology in teaching competencies). Teacher candidates enrolling select 1, 2, or 3 credit hours based on their particular program requirements and their individual goals for growth in instructional technology. EDT 3610 instructors assess teacher candidates' entry-level technology skills and place them in an appropriate skill development module. Teacher candidates then progress through modules representing beginning, intermediate, advanced, and specialized content area/grade level proficiencies.

## **Elementary Education**

### **EDU 1610-3**

#### **(MDL 1610, SPE 1610) American Sign Language I (3 + 0)**

Prerequisite: Minimum performance on the reading and writing pre-assessment placement test

This course will provide students with a basic understanding of American Sign Language and beginning conversational skills. Students will be introduced to Deaf culture. (General Studies-Level I, Communications)

### **EDU 2340-3 Urban Early Childhood Education (3 + 0)**

Corequisite: EDU 2350

This course introduces the historical and philosophical foundations of early childhood education, as well as current social and educational issues and trends. Emphasis will be on the knowledge, attitudes and decision-making skills essential for continued academic work and field experience in urban, multicultural and early-childhood settings serving children from birth through age eight.

### **EDU 2350-2 Urban Early Childhood Education Field Experience (1 + 2)**

Corequisite: EDU 2340

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This laboratory experience provides guided observation and participation in Metropolitan State College's Child Development Center ensuring practical application of the instruction received in the companion course, EDU 2340 (Urban Early Childhood Education). The emphasis is on observation skills, interactions with children of differing ages and from diverse ethnic, cultural and economic backgrounds, and implementation of developmentally appropriate activities in the daily program of an urban early childhood program.

### **EDU 2360-2 Expressive Arts for the Young Child (2 + 0)**

The facilitation of children's creative expression and problem-solving in music, movement, art, drama, literature and other forms is considered. Emphasis is on ways to make decisions and create a developmentally appropriate curriculum as well as maintain a classroom atmosphere and environment that allows creative expression and encourages and supports the creativity and talents of children.

### **EDU 3100-5 Social Foundations and Multicultural Education (4.5 + 1)**

This course is designed to acquaint the student with the social foundations and diverse contexts involved in elementary education in a changing society. Historical, philosophical, financial and legal constraints, as well as cultural variations, socio-economic status, gender equity, language background, human relations and the school as a social institution are investigated as contexts that will affect the decisions that teachers make. Students will be required to spend 15 hours of observation in a variety of classrooms. (Multicultural)

### **EDU 3120-3**

#### **(CHS 3300) Education of Chicano Children (3 + 0)**

Prerequisite: CHS 2000

Presents the Chicano perspective on current public education policy and its implementation in the schools. Examines learning and teaching differences in students and teachers. Credit will be granted for only one prefix: EDU or CHS.

### **EDU 3340-4 Administration of Early Childhood Programs (4 + 0)**

Prerequisites: EDU 2340, 2350, PSY 1800 or equivalent

Provides an overall view of program administration and specific concepts applicable in a variety of early childhood settings: preschools, child care,



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infant/toddler care, and after-school programs. Examines personnel management, program development, fiscal administration, marketing, and fund-raising.

**EDU 3350-3 Documentation, Assessment and Decision Making for Early Childhood (2 + 2)**

Prerequisite: PSY 1800 or permission of instructor

This course emphasizes the basic foundations for documentation, assessment and decisions to facilitate children's growth and emerging curriculum with children from birth to age eight. Informal and observational methods of assessment will be stressed along with portfolio development and more traditional teacher-made tests.

**EDU 3370-3 Language Arts and Social Studies Methods for Early Childhood (3 + 0)**

Prerequisite: PSY 1800

This course covers theoretical approaches to and various influences upon the acquisition and development of language and literacy in the early childhood years and the introduction and integration of social studies concepts in early childhood classrooms. Students design, implement and evaluate developmentally appropriate language arts and social studies curricula to meet the needs of diverse learners.

**EDU 3460-3 Introduction to the Education of the Gifted and Talented (3 + 0)**

Prerequisite: SED 3600

Focuses on the history, myths, and characteristics of gifted and talented students as learners. Presents procedures for identification and service models, as well as teaching and learning models for appropriate curriculum.

**EDU 3510-4 Perspectives in Bilingual-Bicultural Education (4 + 0)**

An introductory course in bilingual and multicultural education, with emphasis on the linguistically and culturally diverse learner. Acquaints the student with historical perspectives, philosophical frameworks, legal implications, subject matter methodologies, and current issues that affect these educational programs.

**EDU 3640-3 Basic Techniques of Instruction, Assessment and Management (3 + 0)**

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Prerequisites: EDU 3100 or EDU 2340; PSY 1800, SED 3600

Corequisite: EDU 3650

Students will learn to make effective decisions regarding standards and objectives, instructional planning, methodology, classroom management and assessment. Students will practice these skills in the diverse contexts of clinical internship placements. Students must take EDU 3650, a 45-hour internship, concurrently.

**EDU 3650-1 Elementary Instruction, Assessment and Management Internship (0 + 3)**

Prerequisite: EDU 3100

Corequisite: EDU 3640

This internship is taken in conjunction with EDU 3640. The student will spend three hours per week practicing decision-making, planning, instructional techniques, assessment and management skills in an urban multicultural public school classroom.

**EDU 3750-3 Integrating Expressive Arts and Physical Activity in the Elementary Classroom (3 + 0)**

Prerequisite: EDU 3100

This course is designed to help elementary teachers develop the skills to work with art, music and physical education specialists in schools and to integrate expressive arts and physical activities with the academic subjects in the elementary classrooms.

**EDU 4070-3 Designing and Implementing Programs for Adult Learners (3 + 0)**

Prerequisite: PAR 2050, HSP 2020, or permission of instructor

Prepares students to develop, implement, and evaluate programs for the growing population of adult learners. Emphasizes a practical design process and teaching techniques that are particularly appropriate for the adult learner. Provides the experience of implementing and evaluating a program.

**EDU 4100-4 Integrated Methods of Teaching Language Arts and the Social Studies: K-6 (4 + 0)**

Prerequisites: PSY 1800, ENG 3460, RDG 3130, EDU 3640

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Corequisite: EDU 4105

This course presents an overview of the integrated methods, materials and curricula currently in use in elementary language arts and social studies education. Decision making skills to foster the integration of reading, writing, listening, speaking and viewing skills in all academic areas will be stressed. Use of social studies topics as the integrating core will be explored within the content of age appropriate context and methods. Students will incorporate state and national standards, and make decisions, based on the diverse contexts of their classroom and pupils, to use technology and develop appropriate assessment strategies to support effective instruction. Students must take EDU 4105, a 45-hour internship, concurrently.

### **EDU 4105-1 Integrated Elementary Language Arts and Social Studies Internship (0 + 3)**

Prerequisite: EDU 3640

Corequisite: EDU 4100

This course is an internship taken in conjunction with EDU 4100. The student will spend three hours per week practicing making instructional, assessment and management decisions in language arts and social studies in the diverse contexts of a public school classroom.

### **EDU 4120-4 Integrated Methods of Teaching Science and Mathematics: K-6 (4 + 0)**

Prerequisites: RDG 3130, EDU 3640, PSY 1800, MTH 1610, SCI 2610, and SCI 2620

Corequisite: EDU 4125

This course presents an overview of the integrated methods, materials and curricula currently in use in elementary science, health and mathematics education. Promotion of positive attitudes, gender equity, inquiry, discovery and problem-solving techniques and strategies will be stressed. Students will make decisions based on the diverse contexts of the classroom and pupils, incorporating state and national standards, to include the appropriate use of technology and development of appropriate assessment strategies to support effective instruction. Students must take EDU 4125, a 45-hour internship, concurrently.

### **EDU 4125-1 Integrated Elementary Math and Science Internship (0 + 3)**

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Prerequisite: EDU 3640

Corequisite: EDU 4120

This course is an internship taken in conjunction with EDU 4120. The student will spend three hours per week practicing making instructional, assessment and management decisions in math and science in the diverse contexts of a public school classroom.

### **EDU 4190-6, 8, 10, 12 Student Teaching and Seminar: Elementary K-6 (1 + 12.5, 17.5, 22.5, 27.5)**

Prerequisites: Successful completion of all requirements of the major, minor, elementary licensure program and general studies. Satisfaction of all student teaching application requirements by the required deadline including initial sign-off on the teacher candidate portfolio by the education advisor

This is a supervised full-time field experience in an accredited public or private elementary school, providing increasing responsibility for the teaching, supervision and assessment of learners (K-6). A 15-hour semester is part of the field experience requirement. Each student teacher is required to present a completed teacher candidate portfolio to the college supervisor and peers at a student teaching seminar. (Senior Experience)

### **EDU 4310-3 Parents as Partners in Education (3 + 0)**

Prerequisite: PSY 1800 or permission of instructor

This course focuses on parents as partners in the education of their children and emphasizes planning and activities that encourage parent involvement. In addition to parent education and involvement, it covers the history of parent education, the family, communication skills, parent-teacher conferences, the exceptional child, child abuse, and rights and responsibilities of parents.

### **EDU 4330-2 Science, Health and Mathematics for the Young Child (2 + 0)**

Prerequisites: PSY 1800 and EDU 3640 or permission of instructor

Emphasis is on the practical application of methods used by teachers of young children to build appropriate knowledge and conceptual foundations for science, health and mathematics. Students will make decisions regarding planning, implementing and evaluating lessons and activities appropriate for children through the third grade.

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**EDU 4370-3 Planning a Developmentally Appropriate Early Childhood Classroom (3 + 0)**

Prerequisite: EDU 2340, EDU 2350, PSY 1800 and EDU 3640 or permission of instructor

Students learn how to make decisions to organize, schedule, sequence and integrate available resources to plan and implement developmentally appropriate early childhood programs responsive to children's diverse needs. Content areas include planning, classroom organization and management, curriculum, securing and implementing resources to achieve child and program outcomes, and practices of effective teaching techniques.

**EDU 4380-3-6 Teaching Practicum in Pre-Primary Early Childhood Education (1 + 4-10)**

Prerequisites: PSY 1800, EDU 2340, EDU 2350 and EDU 3640 or permission of instructor

Corequisites: EDU 4370

This course provides guided participation and teaching in a pre-primary school or center to prepare students to take charge of an entire class. Students will develop competencies in classroom planning, organization and management to achieve specific content and process goals in an early childhood education setting. (Senior Experience)

**EDU 4390-6-8-10 Student Teaching and Seminar: Early Childhood (Preschool through Third Grade) (1 + 12.5, 17.5, 22.5)**

Prerequisites: completion of all requirements of the major, early childhood licensure program, and General Studies. Initial sign-off on the teacher candidate portfolio by the education advisor is also required

This course requires assignments in an accredited public or private school as follows: one assignment in either Pre-K or K grade levels and one assignment in either first, second or third grade levels for a total of 13 weeks. Both field experiences provide increasing responsibility for the teaching, supervision and direction of a group of learners. (Senior Experience)

**EDU 4510-4 Development of Methods and Materials for the Bilingual/Bicultural Classroom (4 + 0)**

Prerequisites: EDU 3510 and proficiency in Spanish

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Designed to help students identify appropriate instructional materials in the areas of language arts, math and science, social studies, and the fine arts. Emphasizes planning, implementing, and evaluating curriculum for the lin-

guistically and culturally diverse student with alternatives in approaches and methodology. Includes clinical experience in a bilingual classroom.

**EDU 4520-3 Practicum in Bilingual/Bicultural Education (1 + 4)**

Prerequisites: EDU 4510, proficiency in Spanish

Considers bilingual/bicultural techniques and their development and implementation in a bilingual/bicultural classroom. Requires six hours per week in a bilingual school or community setting.

**EDU 4540-2****(HSP 4540, CJC 405B) Youth, Drugs and Gangs (2 + 0)**

Prerequisites: HSP 2030 and HSP 2040

Child abuse, neglect and substance abuse are underlying issues for gang members. This course explores the reasons youth are attracted to and join gangs and the correlation between psychoactive substances and violence.

**EDU 4650-3 Current Issues in Education: Variable Topics (3 + 0)**

Prerequisite: advanced students in education

An in-depth examination of selected current topics and issues in education. Topics vary, but all are of current importance, requiring the study of recent writings, research, and legislation. This course may be repeated for credit under different topics.

**EDU 4690-1-6 Professional Practicum (0 + 2.5-15)**

Prerequisites: completion of student teaching or permission of college supervisor of student teaching; satisfaction of all Level I and Level II General Studies course requirements, senior standing

A five-week clinical experience designed cooperatively by the student and a designated college supervisor. Experiences range from remedial work to internships in education-related organizations. Students may elect variable credit in consultation with their advisor. (Senior Experience)

**EDU 4700-1 Substitute Teacher Workshop (1 + 0)**

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Prerequisites: bachelor's degree or permission of instructor

This course provides the background knowledge, methods, techniques and materials for substitute teachers at the elementary and middle school levels to be more confident and competent substitute instructors.

## **Electrical Engineering Technology**

### **EET 1000-2 Electronics for Non-Majors (2 + 0)**

Prerequisite: elementary algebra

Emphasizes the aspects and applications of electronics useful to persons who are not technically oriented.

### **EET 1140-4 Circuits I (3 + 2)**

Corequisite: MTH 1110 or MTH 1400

This course covers DC circuit analysis, including mesh analysis, nodal analysis, Thevenin conversion, Norton conversion, power, magnetism and magnetic circuits, capacitance, and inductance. An introduction to electrical laboratory procedures and the measurement of basic circuit parameters is also included.

### **EET 1150-4 Circuits II (3 + 2)**

Prerequisites: EET 1140 and MTH 1400 (or MTH 1120 corequisite)

This course is a continuation of EET 1140, using trigonometry and complex algebra. Studies include single time constant circuits, phasors, and the  $j$  operator, RLC circuits with sinusoidal, steady state sources, impedance and admittance, AC formulation of classic network theorems, complex network equations, complex power, frequency response, transformers, and two-port network models.

### **EET 2000-3 Electric Circuits and Machines (3 + 0)**

Prerequisites: MTH 1120 or MTH 1400, PHY 2020 or PHY 2330

An introductory course in electric circuits for non-EET majors. Covers DC and AC circuits, generators, motors, transformers, elementary electronic devices, and circuits.

### **EET 2140-3 Electronics I (2 + 2)**

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Prerequisite: EET 1150

This course is a study of semiconductor diode and bipolar junction transistor devices and MOS field effect transistors. The course also covers frequency response of cascaded amplifiers.

### **EET 2150-3 Electronics II (2 + 2)**

Prerequisite: EET 2140

This course is a study of thyristors, basic operational amplifiers, and voltage regulators. Students will learn to use an internet browser to obtain data sheets for components.

### **EET 2310-4 Digital Logic and Telecommunications (3 + 2)**

An introduction to computer hardware circuits and telecommunications for non-EET majors. Includes lecture and lab with memory circuits and other digital logic devices.

### **EET 2320-3 Digital Circuits I (2 + 2)**

Prerequisite: EET 2000

Covers the analysis and design of logic circuits, using Boolean algebra and Karnaugh maps. Combinational logic circuits (adders, comparators, decoders, encoders, multiplexers, parity generators) are studied. Flip-flop circuits are also used in analysis and design.

### **EET 2340-3 Technical Programming Applications (3 + 0)**

Prerequisite: MTH 1400 (or MTH 1110 and MTH 1120)

This is a beginning-level course using Visual Basic and spreadsheets. Students will solve engineering applications problems from the various areas of civil, electrical and mechanical engineering technology.

### **EET 2350-3 Advanced Technical Programming (3 + 0)**

Prerequisites: EET 2140 and EET 2340

This is an advanced-level programming course using the C language. Methods for solving circuit and electronics problems using the C programming language are studied.

### **EET 3010-4 Industrial Electronics (3 + 2)**



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Prerequisite: EET 1150 or EET 2000

This course covers the application of transistors, op amps, and other electronic devices, both analog and digital. This course is for mechanical engineering technology majors and EET minors. It is not acceptable for EET major requirements.

### **EET 3020-3 Digital IC Design (2 + 2)**

Prerequisites: EET 2340, EET 3330; and either EET 2120 or EET 2150

A course on the design of IC and ASIC digital circuits.

### **EET 3110-4 Circuit Analysis with Laplace (4 + 0)**

Prerequisites: EET 1150 and MTH 2410

This is an advanced-level circuit analysis course using calculus and Laplace transforms. PSpice or similar CAD software is used as a tool for circuit analysis in this class.

### **EET 3120-4 Advanced Analog Electronics (3 + 2)**

Prerequisites: EET 2150 and EET 3110

An advanced analog electronics course with emphasis on the operational amplifier. Topics include power supplies, active filters, amplifiers, nonlinear circuits, and simulation.

### **EET 3330-3 Digital Circuits II (2 + 2)**

Prerequisite: EET 2310 or EET 2320

A continuation of EET 2320. Sequential logic circuits (counters and shift registers), semiconductor memories, A/D and D/A interfacing, and PLDs are studied.

### **EET 3350-3 Embedded Applications Using C++ (3 + 0)**

Prerequisite: EET 2350

This is a project-oriented course, emphasizing programming hardware systems using the C++ programming language.

### **EET 3360-3 Microprocessors (2 + 2)**

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Prerequisites: EET 2320, and one high-level computer language (BASIC, C, PASCAL, etc.)

Covers microprocessor hardware and software, including assembly language programming.

**EET 3410-3 Electric Machines (2 + 2)**

Prerequisite: EET 2150 or EET 3010

A study of motors and generators and their applications.

**EET 3420-3 Electric Power Distribution (3 + 0)**

Prerequisite: EET 2150 or EET 3010

A study of distribution techniques and equipment employed in electric power distribution and control.

**EET 3430-3 Power Generation Using Solar Energy (2 + 2)**

Prerequisites: EET 2140 and EET 2340

Examines the application of solar power generation, using photovoltaic cells, wind machines, and thermal engines.

**EET 3620-3 Analog and Digital Communications (3 + 0)**

Prerequisite: EET 2150 or EET 3010

An introduction to communications systems. Includes information theory, channel capacity, A/D and D/A techniques, modulation (AM, FM, and digital), noise sources, quantization, and transmission lines, including Smith Charts.

**EET 3630-3 Electromagnetic Fields (3 + 0)**

Prerequisites: EET 3110 and EET 3620

Covers mathematical concepts of static and dynamic electromagnetic fields. Includes planewave propagation in lossless and lossy media, waveguide propagation, and radiation principles.

**EET 3640-3 Communications Laboratory (0 + 6)**

Prerequisite: EET 3620

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Covers the fundamentals of analog and digital communication. Includes experiments on modulation, noise, transmission lines, antennas, fundamental communication systems, lasers, and fiber optics.

**EET 3670-3 Measurements for Communications Systems (1 + 4)**

Prerequisites: EET 2340 and EET 3620

Students learn to perform measurements on communications circuits, including SNR, noise figure, impedance, admittance, phase, power, frequency, spectrum analysis, and fields at high frequencies.

**EET 3690-3 Fiber Optics (2 + 2)**

Prerequisites: trigonometry and two semesters of college-level physics

Fiber optics is studied, including ray propagation, emitters, detectors, connectorization and systems, including FDDI and SONET.

**EET 3710-3 Control Systems Analysis (3 + 0)**

Prerequisite: EET 3110

An analysis of classical linear continuous-time control systems. Includes the Laplace transform; Bode plots; stability; transient response; steady-state response; and the design of PID, lag, and lead compensators.

**EET 3720-1 Control Systems Laboratory (0 + 2)**

Prerequisites: EET 3120 and EET 3710

A laboratory course in the analysis and design of control systems, using the classical approach.

**EET 3730-2 Process Control Systems (2 + 0)**

Prerequisites: two years of high school algebra

An introductory course in the applications of PID controllers in the process control industry.

**EET 3740-2 Programmable Logic Controllers (2 + 0)**

Prerequisites: two years of high school algebra

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Covers the application of programmable logic controllers (PLC) and their programming, using ladder diagrams.

**EET 3800-3 Cooperative Education (0 + 9)**

Prerequisites: junior standing and permission of department chair

This is an advanced work experience in a private company or governmental agency related to the EET major and supervised by a competent professional on the work site in conjunction with an EET faculty member.

**EET 4020-3 Verilog Hardware Description Language (2 + 2)**

Prerequisites: EET 3330 or EET 2310, EET 2350 or CSS 2227

The Verilog Hardware Description Language is studied. It is used to design and simulate very large digital integrated circuits.

**EET 4030-3 Analog IC Design (3 + 0)**

Prerequisites: EET 3020, EET 3120, and EET 3710

This course examines the design of analog integrated circuits, including current mirrors, differential amplifiers, digital to analog converters, analog to digital converters, and operational amplifiers. CAD software is used in design and simulation of circuits.

**EET 4040-3 Introduction to IC Fabrication (2 + 2)**

Prerequisites: CHE 1100 and PHY 2331 or PHY 2020

An introduction to the basics of IC fabrication methods and techniques.

**EET 4100-1 Senior Project I (0 + 2)**

Prerequisites: ENG 1020, COM 2610, EET 3120, EET 3360; satisfaction of all Level I and Level II General Studies course requirements, and senior standing

Provides the opportunity to plan design projects in consultation with faculty advisors. Interfacing with industry is encouraged. (Senior Experience)

**EET 4110-2 Senior Project II (0 + 4)**

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Prerequisites: SPE 1010, completion of EET 4100 with a grade of "C" or better, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A continuation of Senior Project I. Students complete their designs and build, test, and demonstrate them. Written technical reports and oral presentations on projects are required. (Senior Experience)

**EET 4320-3 Digital Filters (2 + 2)**

Prerequisites: EET 2340, EET 3110, MTH 2410

An introduction to digital filters as applied in digital signal processing and sampled data control systems.

**EET 4330-3 Data Communications (2 + 2)**

Prerequisite: EET 3330 or EET 2310

Covers methods of local and distant digital communications including systems, standards, and hardware used for transmitting digital data either synchronously or asynchronously.

**EET 4340-3 Interface Techniques (2 + 2)**

Prerequisites: EET 3330, EET 3360

Covers interfacing techniques with computers, peripherals, and other digital circuits.

**EET 4370-3 Microcontrollers (2 + 2)**

Prerequisite: EET 3360

Provides the opportunity for learning to design microcontrollers.

**EET 4520-3 Cellular & PCS (Personal Communication Services) (3 + 0)**

Prerequisite: EET 3620

This course is a study of analog and digital cellular and personal communication services, including AMPS, GSM, CDMA, wireless LANs, and others.

**EET 4620-3 Advanced Communications Systems (3 + 0)**

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Prerequisite: EET 3620

Covers the analysis and design of advanced communication systems, including HF, VHF, UHF, microwave, spread spectrum, optical, video, and satellite systems.

### **EET 4630-3 Space and Satellite Communications (2 + 2)**

Prerequisite: EET 3620

Covers the application of basic communications, power, and microwave theory to space and satellite communication systems.

### **EET 4640-3 Communication Circuit Design (3 + 0)**

Prerequisite: EET 3630

Covers the analysis and design of radio frequency electronic circuits for communication transmission and reception.

### **EET 4710-4 Digital Control Systems Design (4 + 0)**

Prerequisite: EET 3710

Includes the design of digital control systems, using classical and modern control theory. State variable feedback control laws and observers are designed.

### **EET 4730-3 Robotics (3 + 0)**

Prerequisites: EET 2140 or EET 3010, MTH 2410

Covers analysis and design of robots. Includes robot kinematics, inverse kinematic, kinetics, sensors, actuators, and industrial applications.

## **English**

### **ENG 1010-3 Freshman Composition: The Essay (3 + 0)**

Prerequisites: a score of 3.0 on the writing placement exam or a "C" or better in CCD's ENG 100 course

ENG 1010 is a course in the process of writing and revising shorter college-level essays. Classes include lecture, discussion, workshop, and conference methods. By the close of the semester, students will demonstrate their

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ability to generate, organize, and present writing for the appropriate audience. (General Studies—Level I, Composition)

**ENG 1020-3 Freshman Composition: Analysis, Research, and Documentation (3 + 0)**

Prerequisite: ENG 1010 or its equivalent

ENG 1020 examines the process of writing extended essays supported by research. The course includes an introduction to library use, research techniques, and conventions of documentation as well as practice in critical reading, thinking, and writing across the disciplines. Students can expect to do a series of shorter writing assignments leading to the longer, documented paper. Those sections of ENG 1020 listed as "Research and Word Processing" include hands-on instruction on the use of the computer in research and writing. (General Studies—Level I, Composition)

**ENG 1100-3 Introduction to Literature (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing placement tests

This is a course in the general appreciation and understanding of literary genres, including fiction, drama, and poetry. It is recommended for the general studies requirement. (General Studies—Level II, Arts and Letters)

**ENG 1110-3 Introduction to Fiction (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing placement tests

This course is a critical introduction to selected short fiction, with an emphasis on twentieth-century British and American writings and a secondary emphasis on non-Anglo-American fictions. (General Studies—Level II, Arts and Letters)

**ENG 1120-3 Introduction to Drama (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing placement tests

This course in drama appreciation studies plays representing different genre and periods, presented with a modern perspective. (General Studies—Level II, Arts and Letters)

**ENG 1140-3 Literature of Popular Interest: Variable Topics (3 + 0)**

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Prerequisite: minimum performance standard scores on reading, writing, and math placement tests

Courses that have an appeal at a given time will be offered under this general title. The specific course or courses will be designated by a descriptive title, such as science fiction, detective fiction, or tales of terror. May be repeated for credit under different titles for elective credit.

### **ENG 1310-3 Introduction to Shakespeare (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing placement tests

This course is an introduction to Shakespeare especially designed for a general audience. (General Studies—Level II, Arts and Letters)

### **ENG 2010-3 The Nature of Language (3 + 0)**

This course provides an overview of dynamic, contemporary linguistic insights into grammars, language acquisition, social dialects, sound and meaning systems, and systematic bases for language change. It is also an examination of myths and illusions about human and animal languages. It is primarily for majors in humanities and social sciences, but especially appealing to science majors because of the examination of the regular systems underlying natural languages.

### **ENG 2100-3 Introduction to Literary Studies (3 + 0)**

Prerequisite: ENG 1020 or permission of instructor

Designed primarily for English majors and minors, this course introduces students to the study of literature as a discipline. It considers the terminology, traditions, critical approaches and controversies of literary study. Students will read, discuss and write about literature written by men and women from a variety of cultures, past and present.

### **ENG 2110-3 World Literature: Beginnings to 1600 (3 + 0)**

Prerequisite: ENG 2100 or permission of instructor

The study of literature in translation from the pre-Homeric era to 1600, created by men and women of diverse backgrounds.

### **ENG 2120-3 World Literature: 17th Century to Present (3 + 0)**

Prerequisite: ENG 2100 or permission of instructor



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The study of continental and third-world literature in translation, written after 1600.

**ENG 2210-3 American Literature: Beginnings through the Civil War (3 + 0)**

Prerequisite: ENG 2100 or permission of instructor

An introduction to characteristic American modes of expression such as oral tales, diaries, and narratives as well as essays, fiction, drama, and poetry created by men and women of diverse backgrounds.

**ENG 2220-3 American Literature: Civil War to Present (3 + 0)**

Prerequisite: ENG 2100 or permission of instructor

An introduction to characteristic American modes of expression such as oral tales, diaries, and narratives as well as essays, fiction, drama, and poetry created by men and women of diverse backgrounds.

**ENG 2240-3 Native American Literatures (3 + 0)**

Prerequisites: ENG 1010 or permission of instructor

This course studies the oral and written literatures of Native Americans in the context of historical, political and social conditions of the time that they were produced. It is suitable for non-English majors. (Multicultural)

**ENG 2310-3 British Literature: Beginnings to 1785 (3 + 0)**

Prerequisite: ENG 1010 or permission of instructor

The literature of England from the old English period through the 18th century, including poetry, drama, prose fiction, and essays.

**ENG 2330-3 British Literature: 1785 to Present (3 + 0)**

Prerequisite: ENG 1010 or permission of instructor

The literature of England from the Romantic period through the present, including poetry, drama, prose fiction, and essays.

**ENG 2410-3****(CHS 2010) Survey of Chicano Literature (3 + 0)**

## **2000-2001 College Catalog**

Prerequisite: CHS 1000 or permission of instructor

This course reviews the major literary genres associated with Chicano creative expression, including poetry, drama, and the novel. Credit will be granted for only one prefix: ENG or CHS. Suitable for non-English majors.

### **ENG 2420-3**

#### **(CHS 2020) Chicano Poetry and Drama (3 + 0)**

Prerequisite: CHS 2010 or permission of the instructor

This course is an intensive study of Chicano poetic and dramatic arts as they attempt to create a new reality. The course will also equip the student with a basic approach to poetry and drama as a craft through production. Credit will be granted for only one prefix: ENG or CHS. Suitable for non-English majors.

### **ENG 2450-3**

#### **(WMS 2450) Women's Literature (3 + 0)**

Prerequisites: ENG 1010 and ENG 1020 for students enrolled through English; ENG 1010 and WMS 1001 for students enrolled through Women's Studies

This course introduces students to women authors; to images of women in fiction, drama, and poetry; and to feminist literary criticism. Works by women of color are included. It has an historical perspective with most reading on British and United States women, particularly those writing in the eighteenth, nineteenth, and twentieth centuries. The focus will be on the ways in which literature by women in any tradition is affected by their gender. Credit will be granted for only one prefix: ENG or WMS.

### **ENG 2500-3 Art & Craft of Writing (3 + 0)**

Prerequisite: ENG 1020 or permission of instructor

This introductory course for students pursuing an English major with an emphasis in writing provides a conceptual framework for analyzing writing situations, offers models, immerses students in practice, invites them to join a community of writers, and engages them in facets of writing (e.g., prewriting, drafting, response, editing, revision, and publication).

### **ENG 2520-3 Introduction to Creative Writing (3 + 0)**

## **2000-2001 College Catalog**

Prerequisite: ENG 1020 or permission of instructor

This introductory course employs lectures, group discussions, and exercises in writing fiction, poetry, and drama.

### **ENG 3020-3 History of the English Language (3 + 0)**

Prerequisites: ENG 2010 or permission of instructor

A study of both the internal history (sounds and inflections) and the external history (the great political, social, and cultural influences) that have combined to make the English language what it is today, including an analysis of regional and dialectal speech.

### **ENG 3030-3 Semantics (3 + 0)**

Prerequisites: ENG 2010 or permission of instructor, satisfaction of Level I General Studies requirements

Students will study the origins of meaning in natural language, examine significant linguistic units that carry meaning, and the formal/informal systems that account for meaning. The course surveys symbolic, historical, and pragmatic elements associated with semantics and deals systematically with basic concepts, theories, and analytical techniques in contemporary linguistics. It is especially recommended for majors in pre-law, communication, law enforcement, psychology, philosophy, teaching, and related disciplines. (General Studies—Level II, Arts and Letters)

### **ENG 3040-3 Morphology and Syntax (3 + 0)**

Prerequisites: permission of instructor; ENG 2010 is recommended but not required for students who have had little or no recent study in language principles

This is an intermediate study of principles of grammar, primarily English grammar (morphology and syntax), approached through an examination of basic principles of syntactic theories. The course content covers a selection of principles from structural linguistics and an introduction to the basics of generative-transformational syntactic theory. Analysis of structures and discussions of several theories underlying systematic language study are included.

### **ENG 3050-3 Language and Society (3 + 0)**

Prerequisites: any of the following: ENG 2010, ENG 3020, ENG 3030, ENG 3040, ANT 2330 or permission of instructor

### **2000-2001 College Catalog**

This course examines the dynamic relationships between language and society. The students will investigate why people speak differently in different social contexts by identifying the social functions of language and the ways in which language is used to convey social meaning. The course focuses on language variation, including such topics as languages and dialects, pidgins and creoles, bilingualism and multilingualism, linguistic solidarity and politeness, language planning and language change. Field methods, including ethical research procedures, will be in integral part of the course.

### **ENG 3060-3 Modern Language Theory (3 + 0)**

Prerequisite: ENG 2010 or permission of instructor

This course analyzes language and language theories. The patterns of language—sounds, words, phrases, and sentences—are examined in the context of modern language theory, including generative grammar, functional grammar, or other relevant theoretical approaches.

### **ENG 3100-3 Studies in Chaucer, Shakespeare, and Milton (3 + 0)**

Prerequisite: six semester hours of English beyond ENG 1020

A study of major works by Chaucer, Shakespeare, and Milton, designed to give the student a thorough understanding of these principal influences on the English literary heritage.

### **ENG 3110-3 Selected Literary Periods: Variable Topics (3 + 0)**

Prerequisite: Six hours of English at the 2000 level or above or permission of instructor

This course studies characteristic writers responding to ideas and events in a literary period. Readings will include primary literature of the period, as well as materials exploring the literature's contexts. This course may be repeated under different topics.

### **ENG 3210-3 Development of American Drama (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

The course is a study of the development of drama written in the United States from 1714 to the present and of the relationship of this drama to American literature and culture.

## **2000-2001 College Catalog**

### **ENG 3230-3 Development of the American Novel (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course is a study of development, practice, theory, and critical evaluation of the selected American novels from the early nineteenth century to the present day.

### **ENG 3240-3**

#### **(AAS 3240) African American Literature (3 + 0)**

Prerequisites: six semester hours of English above 1020, or permission of instructor and satisfaction of Level I General Studies course requirements

A study of the various forms of literature produced by black Americans. The works are considered in the context of the historical and social conditions of the time at which they were written. Credit will be granted for only one prefix: ENG or AAS. Suitable for non-English majors. (General Studies—Level II, Arts and Letters; Multicultural)

### **ENG 3310-3 Development of British Drama: Mysteries to Melodrama (3 + 0)**

Prerequisite: six semester hours of English above 1020

The study of representative plays from the Medieval period to the present and of their importance to literature and culture.

### **ENG 3330-3 Development of the British Novel (3 + 0)**

Prerequisite: six semester hours of English above 1020

A study of developing practice and theory together with critical evaluation of the British novel through the nineteenth century.

### **ENG 3400-3 Development of Modern Poetry (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course is a study of the theory and prosody of twentieth-century poetry.

### **ENG 3410-3 Masterpieces of Continental Literature (3 + 0)**

## **2000-2001 College Catalog**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course studies major works by European writers from the classical period to the present.

### **ENG 3420-3 The English Bible as Literature (3 + 0)**

Prerequisites: completion of Level II General Studies lower-division literature course (ENG 1100, ENG 1110, ENG 1120, or ENG 1310), or permission of instructor; satisfaction of Level I General Studies course requirements

This course is a critical study of the Bible in English with emphasis on the literary forms and cultural contexts of the Old and New Testaments. Students are expected to approach the course in a spirit of open enquiry fundamental to any literary study. The course focuses on the significant ideas of Judaism and Christianity in their historical contexts rather than the contexts of specific modern religions. (General Studies—Level II, Arts and Letters)

### **ENG 3430-3 Classical Mythology (3 + 0)**

Prerequisites: completion of Level II General Studies lower-division literature course (ENG 1100, ENG 1110, ENG 1120, or ENG 1310), or permission of instructor; satisfaction of Level I General Studies course requirements

This course is a study of Greek and Roman myths, their parallels in other mythologies, and their occurrences in literature and criticism. By tracing the modifications of various myths from their most ancient forms of literature, the course will acquaint students with the continued vitality of mythology. (General Studies—Level II, Arts and Letters)

### **ENG 3440-3 Myth, Symbol, and Allusion in Literature (3 + 0)**

Prerequisite: six semester hours of English above 1020

A course introducing students to mythic and Biblical themes and symbols as they appear in literature, primarily poetry, both ancient and modern, written by men and women of diverse backgrounds.

### **ENG 3460-3 Children's Literature (3 + 0)**

Prerequisites: completion of Level II General Studies lower-division literature course (ENG 1100, ENG 1110, ENG 1120, or ENG 1310), or permission of instructor; satisfaction of Level I General Studies course requirements

**2000-2001 College Catalog**

This course is a study of all levels and types of children's literature for the student who is interested in literature per se, for the student who is planning to teach, and for persons who are or will be parents. It also introduces students to types and varieties of literature for reading to children, as well as reading by children. In addition, it includes a consideration of approaches and techniques for presenting literature to children. (General Studies Course—Level II, Arts and Letters)

**ENG 3470-3 Young Adult Literature (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course provides a critical survey of all types and genres of contemporary young adult literature. It focuses on issues relating to selection, culture, gender, diversity, and response to and analysis of literature in both print and nonprint forms.

**ENG 3480-3****(CHS 3400) The Chicano Novel (3 + 0)**

Prerequisite: CHS 2010 or permission of instructor

This course deals with origins, themes and techniques that characterize the Chicano novel. It is an in-depth study of the best examples of literary production in both Spanish and English. Credit will be granted for only one prefix: ENG or CHS. Suitable for non-English majors.

**ENG 3490-3****(CHS 3410) Chicano Folklore of the Southwest (3 + 0)**

Prerequisite: CHS 2000 or permission of instructor

This course accents the study of oral and written folklore as a genre in Chicano history and culture. Its focus is upon tales, traditions, belief, and humor as a means to gain insight into what is culturally specific. Credit will be granted for only one prefix: ENG or CHS. Suitable for non-English majors.

**ENG 3510-3 Advanced Composition (3 + 0)**

Prerequisite: six semester hours of English at the 2000-level or above or permission of instructor

**2000-2001 College Catalog**

A study of the theoretical and ethical bases of persuasive writing and practice in the principles and techniques that affect constructive persuasion in a pluralistic society. Suitable for non-English majors.

**ENG 3520-3 Creative Writing Workshop (Fiction, Poetry, or Drama) (3 + 0)**

Prerequisite: ENG 2520 or permission of instructor

This class will include group discussions and supervised individual projects in writing imaginative literature; it may be repeated for credit with permission for each of the genres.

**ENG 3530-3 Techniques of Critical Writing (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course examines methods and practices in writing critical responses to art forms, including literature, theatre, and film. It also provides experience in writing journalistic and academic criticism. Suitable for non-English majors.

**ENG 3620-3 Teaching Composition, 7–12 (3 + 0)**

Prerequisite: ENG 2100 and ENG 2500

This course integrates theory and research in composition with personal practice and pedagogical implementation. Students will learn how to teach writing by practicing writing themselves, examining contemporary theories of writing instruction, and making purposeful selection of pedagogical strategies.

**ENG 3670-3 Writing Tutor (3 + 0)**

Prerequisites: ENG 1010, ENG 1020, and permission of instructor

A course designed to familiarize students with principles and practices of teaching writing in a tutorial setting. Communications and English majors or minors or students who have a special interest in writing are preferred.

**ENG 3700-3 Literature and the Law (3 + 0)**

Prerequisite: one upper-division course in the humanities or social sciences or one literature course; or permission of instructor



### **2000-2001 College Catalog**

The course will examine questions about law, justice, and morality through an examination of selected pieces of world literature.

### **ENG 3820-3 Writing Studio: Variable Topics (3 + 0)**

Prerequisite: ENG 2500 or ENG 2520 and completion of the appropriate 3000-level writing course, or permission of instructor

This course offers specialized studios in the writing of a particular literary subgenre or expository form, incorporating lectures, selected textual studies, group discussion, workshops, and supervised individual projects. This course may be repeated for credit under different topics.

### **ENG 4010-3 Studies in Linguistics: Variable Topics (3 + 0)**

Prerequisites: Any of the following: ENG 2010, ENG 3020, ENG 3030, ENG 3040, ENG 3050, ENG 3060, ANT 2330

The different seminar topics, some theoretical and some applied, range over extensive research in linguistic studies from grammars to stylistics to speech acts and language processing. Individualized projects may be completed. This course may be repeated for credit under different topics.

### **ENG 4110-3 Advanced Studies in Literature: Variable Topics (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course studies selected works chosen as representative of an important "school" or group within a period of literature. This course may be repeated for credit under different topics.

### **ENG 4120-3 Selected Themes in Literature: Variable Topics (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course studies literary works selected as significant expressions of a theme, idea, or mode. The works may be drawn from one or more literary eras. This course may be repeated for credit under different topics.

### **ENG 4130-3**

### **(CHS 4200) Major Authors: Variable Topics (3 + 0)**

**2000-2001 College Catalog**

Prerequisite: six semester hours of English above 1020, or permission of instructor

The course traces in representative works the artistic and intellectual development of one or two important writers. This course may be repeated for credit under different topics.

**ENG 4140-3 Modern Continental, British, and American Drama (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

This course encompasses a survey of the important dramatic work of the last hundred years with emphasis on trends of development. Plays by German, Scandinavian, Russian, Italian, Spanish, French, British, and American playwrights are included.

**ENG 4310-3 Shakespeare: Comedies, Histories, Sonnets (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

Selected comedies, and histories including *The Taming of the Shrew*, *A Midsummer Night's Dream*, *The Merchant of Venice*, *As You Like It*, *Twelfth Night*, *The Tempest*, *Richard II*, *Henry IV*, 1 and 2, *Henry V*, and selected sonnets.

**ENG 4320-3 Shakespeare: Tragedies and Ethical Problem Plays (3 + 0)**

Prerequisite: six semester hours of English above 1020, or permission of instructor

Selected tragedies and problem plays, including *Romeo and Juliet*, *Julius Caesar*, *Hamlet*, *Othello*, *King Lear*, *Macbeth*, *Antony and Cleopatra*, *Measure for Measure*, *Troilus and Cressida*, and *Cymbeline*.

**ENG 4520-3 Advanced Writing (3 + 0)**

Prerequisites: satisfaction of all Level I and Level II General Studies course requirements, senior standing, completion of all lower-level writing requirements in the English major or minor with writing emphasis, and/or permission of the instructor

### **2000-2001 College Catalog**

This capstone course in the writing emphasis provides individual instruction for independent projects in writing fiction, poetry, drama, or nonfiction and advice for submitting work for publication or production. (Senior Experience)

### **ENG 4600-3 Teaching Literature and Communication, 7–12 (3 + 0)**

Prerequisites: senior standing and completion of ENG 3020, ENG 3470, and ENG 2500

Students will explore pedagogical techniques for teaching literature: understanding and responding to texts and applying the dynamics of communication in spoken and written language. The course will address issues of language diversity; cross-cultural, young adult, and nonprint literatures; and integration of English language arts.

### **ENG 4610-3 Theories and Techniques in Literary Criticism (3 + 0)**

Prerequisites: satisfaction of all Level I and Level II General Studies course requirements, senior standing, and permission of instructor

This Senior Experience course, a requirement for English majors with a literature emphasis, studies major critical theories from the ancients to the contemporary deconstructionists, with an emphasis on theoretical understanding and practical application of the writing of critical essays. (Senior Experience)

### **ENG 4640-3 Teaching English, 7–12 (3 + 0)**

Prerequisites: completion of at least 36 semester hours of courses required for secondary English emphasis, completion of at least 15 semester hours of professional education courses, and permission of instructor.

In this capstone course, students preparing to teach English in grades 7 through 12 will integrate knowledge and pedagogical strategies from earlier courses. Students will address issues of diversity, adolescent development, integration of the English language arts, and their own professional development. (Senior Experience)

### **ENG 4650-3 Teaching Composition in Elementary School (3 + 0)**

Prerequisites: ENG 3510, junior standing, or permission of instructor

This course incorporates the writing process, developmental growth and fluency of K–6 writers, writing skills and assessment, sequential composition curricula, and techniques and materials for teaching composition. Students will develop and demonstrate composition lessons and activities.

## **2000-2001 College Catalog**

### **ENG 4660-3 Teaching Literature and Language K-6 (3 + 0)**

Prerequisites: satisfaction of all Level I and Level II General Studies course requirements, senior standing, and completion of ENG 3020 and ENG 3460

This Senior Experience course focuses on the comprehension and teaching of literature, language, and language arts for K–6 students, with emphasis on the elements, characteristics, and types of literature and on the forms, functions, and uses of language, grammar, and usage. Students will prepare, present, and evaluate lessons and activities representative of the curriculum. (Senior Experience)

## **Finance**

### **FIN 2250-3 Personal Money Management (3 + 0)**

Prerequisite: sophomore standing

This survey course is oriented to the identification and solution of personal financial problems. The subject matter ranges from the determination of one's financial condition to estate planning, including controlling credit usage, making major purchase decisions, buying insurance, making investments, and planning retirement. (Credit will be granted for either FIN 2250 or FIN 3150, not both. Business majors must take FIN 3150.) (General Studies - Level II-Social Sciences)

### **FIN 3010-3 Financial Markets and Institutions (3 + 0)**

Prerequisite: junior standing

This course provides a framework for understanding our financial environment, including markets, institutions, and securities. Each type of market and how financial institutions use it, its internationalization, and recent events that have affected it are studied.

### **FIN 3100-3 International Money and Finance (3 + 0)**

Prerequisite: junior standing

This course covers the basics of the foreign exchange market, the balance of payments, parity conditions in international finance, foreign exchange risk and forecasting, the financing of international activities, and international capital flows. The course will focus on the financial management of the multinational firm.

### **FIN 3150-3 Personal Financial Planning (3 + 0)**

## **2000-2001 College Catalog**

Prerequisite: business major with junior standing

This course is an introduction to the field of personal financial planning for business students. The student will study money management, investments, insurance, employee benefits, retirement planning, and estate planning as they relate to individual and family financial planning. (Credit will be granted only for FIN 2250 or FIN 3150. Business students should take FIN 3150.)

### **FIN 3300-3 Managerial Finance (3 + 0)**

Prerequisites: ACC 2020, ECO 2010, ECO 2020 and junior standing

This is a study of the dynamic environment of financial management using the following analytical skills: financial analysis, forecasts, cash and capital budgeting, operating and financial leverage, the cost of capital, and dividend policy.

### **FIN 3320-3 Entrepreneurial Finance (3 + 0)**

Prerequisite: junior standing

The course is designed to acquaint students with the basic concepts of obtaining funds for the start-up and financing the continued growth of the firm. The course covers start-up financing, growth capital, daily financial management, valuation and strategic financial planning.

### **FIN 3420-3 Principles of Insurance (3 + 0)**

Prerequisite: junior standing

This course explores the underlying principles of insurance, and the need for insurance in a progressive, dynamic society. It includes an introductory examination of insurable risks, uses of insurance, as well as a study of the important coverages that are currently available.

### **FIN 3430-3 Property and Liability Insurance (3 + 0)**

Prerequisites: FIN 3420 and junior standing

This course is an examination and study of the principles and uses of property and liability insurance. It also includes types of property and liability insurance, products selection, classification of property and liability risks, and organization and regulation of property and liability insurers.

### **FIN 3440-3 Life and Health Insurance (3 + 0)**

## **2000-2001 College Catalog**

Prerequisites: FIN 3420 and junior standing

This course is an examination and study of the principles and uses of life and health insurance. It also includes types of life and health risks, and organization and regulation of life and health insurers.

### **FIN 3450-3 Retirement Planning and Employee Benefits (3 + 0)**

Prerequisite: junior standing

This is a study of the principles of retirement planning and employee benefits, including the determination of financial needs at retirement. The various employee benefits and retirement plans for employees and self-employed persons will be studied.

### **FIN 3460-3 Risk Management (3 + 0)**

Prerequisites: FIN 3420 and junior standing

This course is an analysis of risk identification and evaluation, measurement of protection, and methods of handling risk. It also includes insurance buying, loss financing, and international insurance exposures.

### **FIN 3600-3 Investments (3 + 0)**

Prerequisites: FIN 3300 and junior standing

This course is a survey of the organization and regulation of security markets; security analysis and valuation; and principles of portfolio management from the viewpoint of the individual investor.

### **FIN 3800-3 Real Estate Practice and Law (3 + 0)**

Prerequisite: junior standing

This course surveys the principles and practices of real estate. Subject areas treated include the nature and description of real estate, real property interests and ownership, finance, appraisal, contract and agency law, and real estate investment.

### **FIN 3810-3 Advanced Real Estate Practice and Law (3 + 0)**

Prerequisites: FIN 3800 and junior standing

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This course builds upon the material covered in FIN 3800 by providing expanded, in-depth coverage of the topics, as well as introducing some new topics to provide a broad coverage of the field of real estate.

**FIN 3830-3 Applications in Real Estate Practice (3 + 0)**

Prerequisite: FIN 3800

This course integrates the material introduced in FIN 3800 with an in-depth study of real estate closings, records and trust accounts and current legal issues to provide the student with a practical orientation to the applications of real estate laws, rules and standards of practice.

**FIN 3850-3 Intermediate Finance (3 + 0)**

Prerequisites: FIN 3010, FIN 3300, junior standing

This is an advanced, integrated study of the theory, concepts, and techniques encompassed by financial markets, institutions, and investments as applied in managerial finance. Computer usage is required, especially spreadsheet applications, such as Lotus 1-2-3.

**FIN 4000-3 Management of Financial Institutions (3 + 0)**

Prerequisites: FIN 3010 and senior standing

The purpose of this course is to provide an integrated approach for the financial management of financial institutions. With this objective, the course concentrates on providing the theoretical framework and techniques of financial management, recognizing the rapid changes taking place in the institutional environment.

**FIN 4100-3 International Financial Management (3 + 0)**

Prerequisites: FIN 3100, FIN 3300, ECO 3550, and senior standing

The purpose of this course is to provide a conceptual framework to analyze business financial decision making in the international setting. All the traditional areas of corporate finance are explored, especially working capital management, capital budgeting, cost of capital and financial structure, and evaluation and control of operations. These topics are examined under conditions of multiple currencies, frequent exchange rate changes, varying rates of inflation, differing tax systems, multiple money markets, exchange controls, segmented capital markets, and political risks.

**FIN 4200-3 Financial Modeling with Spreadsheets (3 + 0)**

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Prerequisites: FIN 3300, FIN 3600, CMS 2010, CMS 2300

This course provides the student with a set of financial analysis skills to use in building complex financial models utilizing electronic spreadsheets. The topics covered include building financial statements, analysis of financial statements, modern portfolio theory, capital budgeting, regression analysis and both linear and non-linear programming for financial applications.

### **FIN 4400-3 Estate Planning (3 + 0)**

Prerequisite: FIN 3450

The course provides the student with the basic concepts of estate planning and why it is an important part of overall financial planning. The course covers the tools and techniques of estate planning so as to arrange the efficient future wealth transfers to maximize the financial well being of both the individual and the survivors who are recipients of the wealth transfer.

### **FIN 4500-3 Analysis of Financial Statements (3 + 0)**

Prerequisites: FIN 3300 and senior standing

An in-depth study of current financial reporting practices; analysis and interpretation of corporate financial statements, utilizing text and selected cases.

### **FIN 4600-3 Security Analysis and Portfolio Management (3 + 0)**

Prerequisites: FIN 3600 and senior standing

This course is designed to provide students with a comprehensive understanding of security analysis and portfolio management. The focus of the course is on selecting the appropriate securities and managing the portfolio to meet the investor's objectives.

### **FIN 4650-3 Small Business Consulting (3 + 0)**

Prerequisite: senior standing and must have completed or be coregistered in the remaining business core courses

This senior-level course is designed to provide an opportunity for students to apply a broad range of their classroom knowledge and problem-solving skills to the specific needs of an actual business. The students work in teams, under the guidance of the instructor, with selected small businesses in the community providing research, consulting, and problem-solving assistance



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to specified problems. In most cases, the student team will also assist with the development of a long-range strategic plan.

**FIN 4700-3 Special Topics in Finance (Variable Title) (3 + 0)**

Prerequisites: senior standing and approval of the Finance Department chair

This is an in-depth study of selected topics in finance not available otherwise in the curriculum. Typically, this course will focus on current issues or developments in finance, and the content will vary. This course may be repeated for credit under different topics.

**FIN 4750-3 Seminar in Personal Financial Planning (3 + 0)**

Prerequisites: FIN 3420, FIN 3450, FIN 3600, ACC 3090 or ACC 4100, and senior standing

This is a senior-level integrative course for finance majors concentrating in personal financial planning. It brings together the various aspects of financial planning with heavy emphasis on case studies.

**FIN 4840-3 Real Estate Appraisal (3 + 0)**

Prerequisites: FIN 3800 and senior standing

This course is designed to teach the student various methods of estimating real property value. The primary emphasis will be to apply these methodologies to single-family residences, but some coverage is provided on commercial real estate.

**FIN 4850-3 Commercial and Investment Real Estate (3 + 0)**

Prerequisites: FIN 3800, FIN 3830

This course studies real estate as an investment medium, the techniques used in evaluating and comparing the investment quality of property, and certain tax factors relevant to real estate investment.

**FIN 4950-3 Financial Strategies and Policies (3 + 0)**

Prerequisites: senior standing, FIN 3850, and completion of all business core courses (except MGT 4950)

This is an integrated, case study approach to financial management. Emphasis is on presentation of analysis and recommendations for strategies and policies. This is the capstone and assessment course for finance majors.

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Proficiency in personal computer word processing and spreadsheet applications is necessary.

### **First-Year Seminar** (see page 412)

## **French**

### **FRE 1010-5 Elementary French I (5 + 0)**

A beginner's course, with emphasis on pronunciation, speaking, and understanding, supplemented by grammar, reading, and writing.

### **FRE 1020-5 Elementary French II (5 + 0)**

Prerequisite: FRE 1010 or one or two years of high school French

This course is a continuation of FRE 1010. (General Studies—Level I, Communications)

### **FRE 1110-3 Basic Conversational French I (3 + 0)**

A course designed to teach the essentials of the French language through a conversational approach.

### **FRE 1120-3 Basic Conversational French II (3 + 0)**

Prerequisite: FRE 1110 or equivalent, or permission of instructor

This course is a continuation of FRE 1110.

### **FRE 1800-1-15 International French Year I (1-15 + 0)**

This is a variable-credit course, designed for first-year students learning French in a study-abroad setting. Recognizes approved study-abroad educational experience in French speaking, comprehension, reading, and writing.

### **FRE 2010-3 Intermediate French I (3 + 0)**

Prerequisites: FRE 1010, FRE 1020 or equivalent

The course is a first-semester course of a two-semester intermediate French language sequence specifically designed to strengthen grammatical skills and proficiency in speaking, understanding, reading, and writing. It introduces students to a sampling of social, cultural, and literary topics central to the understanding of France and French-speaking people.

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### **FRE 2020-3 Intermediate French II (3 + 0)**

Prerequisites: FRE 1010, FRE 1020, FRE 2010 or equivalent

This course is a continuation of FRE 2010, designed to continue strengthening grammatical skills and proficiency in speaking, understanding, reading, and writing. It presents further examples of social and cultural topics central to an understanding of France and French-speaking people.

### **FRE 2110-3 French Reading and Conversation (3 + 0)**

Prerequisite: one year of college French or equivalent, or permission of instructor

This course helps to build oral proficiency at intermediate and advanced levels through a variety of personalized interactional activities that are based on readings appropriate to each stage of linguistic development.

### **FRE 2800-1-15 International French Year II (1-15 + 0)**

Prerequisites: one year of college French or equivalent

This is a variable-credit course that recognizes second-year study of French language and culture in an approved study-abroad setting.

### **FRE 3010-3 Introduction to Advanced French Studies (3 + 0)**

Prerequisites: FRE 2010, FRE 2020, or permission of instructor

This transitional course is designed to develop those critical, linguistic, and analytical skills required to pursue French studies at the advanced level. The texts studied are chosen to acquaint students with French sociocultural and literary issues.

### **FRE 3110-3 Survey of French Literature I (3 + 0)**

Prerequisites: FRE 3010 or permission of instructor, satisfaction of Level I General Studies course requirements

This introduction to French literature from the Middle Ages to the Enlightenment gives an insight into French literary, historical, and cultural development through selected reading and discussion. (General Studies—Level II, Arts and Letters)

### **FRE 3120-3 Survey of French Literature II (3 + 0)**

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Prerequisites: FRE 3010 or permission of instructor, satisfaction of Level I General Studies course requirements

This introduction to 19th- and 20th-century French literature emphasizes the evolution of literary style and content from Romanticism to contemporary literary schools. Readings and discussion are in French. (General Studies—Level II, Arts and Letters)

**FRE 3150-3 French Phonetics: Theory and Practice (3 + 0)**

Prerequisite: two years of college French or equivalent, or permission of instructor

This course covers the essential facts of French phonology. It is aimed at improving students' pronunciation and articulation and introducing them to the field of linguistics.

**FRE 3310-3 Advanced French Composition and Grammar (3 + 0)**

Prerequisites: FRE 2010, FRE 2020 or equivalent, or permission of instructor

This course is designed to reinforce and further develop writing skills, thus enabling the student to combine accuracy with imagination and inventiveness in writing French.

**FRE 3320-3 Advanced Conversation (3 + 0)**

Prerequisite: FRE 2010 or FRE 2020 or equivalent, or permission of instructor

This course is designed to broaden the student's skills in French conversation. The student will learn more advanced structures of the language, as well as other aspects of grammar and idiomatic expressions.

**FRE 3550-3 French Historical Perspectives (3 + 0)**

Prerequisites: FRE 3010 or permission of instructor, and satisfaction of Level I General Studies course requirements

This survey chronologically presents major political, societal, and cultural movements that have molded France and the French throughout history. (General Studies—Level II, Historical)

**FRE 3560-3 Contemporary Socio-Cultural Issues (3 + 0)**

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Prerequisites: FRE 3010 or permission of instructor, and satisfaction of Level I General Studies course requirements

This course provides in-depth presentations and analysis of recent social, cultural, political, and economic issues important to an understanding of contemporary France. (General Studies—Level II, Social Sciences)

### **FRE 3800-1-15 International Advanced French (1-15 + 0)**

Prerequisite: junior or senior standing in French or equivalent

This course recognizes upper-division study in language, culture, and literature in a study-abroad setting. It uses a variety of methods and includes reading, writing, and discussion seminars in French.

### **FRE 4520-3 Modern French Theater (3 + 0)**

Prerequisites: three years of college French or equivalent, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, senior standing

This is a sampling of the French dramatists who have not only contributed to literary development, but who also have had an impact on society and culture. Theater analysis techniques will also be stressed. (Senior Experience)

### **FRE 4530-3 The French Novel (3 + 0)**

Prerequisites: three years of college French or equivalent or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, senior standing

This is a sampling of 19th- and 20th-century French novels that will be studied in depth using several literary analysis techniques. (Senior Experience)

### **FRE 4750-3 Senior Seminar in French Studies (3 + 0)**

Prerequisites: senior standing, at least two courses at the FRE 3000-level

This is an intense thematic seminar on either a literary or cultural topic emphasizing a comparative study in the former and a multidisciplinary approach to the latter.

## **Geography**

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### **GEG 1000-3 World Regional Geography (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course presents the study of the formation, behavior, and interaction of social, political, cultural, and economic regions throughout the world. (General Studies—Level II, Social Sciences)

### **GEG 1100-3 Introduction to Physical Geography (3 + 0)**

Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This survey course is designed to provide an understanding of all the elements of the physical environment. The course emphasizes the four spheres: the atmosphere (weather and climate), the lithosphere (soils, geology, and landforms), the hydrosphere (oceans, streams, and groundwater), and the biosphere (vegetation and animals). (General Studies—Level II, Natural Science)

### **GEG 1120-1 Orienteering (0 + 2)**

This course familiarizes students with the reading and interpretation of topographic maps and the use of the compass. Orienteering exercises are conducted in the field.

### **GEG 1200-3 Introduction to Environmental Science (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is an introduction to the study of the physical environment and some of the major related issues and problems. The areas of concern include the nature of the environment, climatic factors, agriculture, solid and hazardous waste site location, global environmental hazards, land use, water resources, and energy and mineral resources, as well as environmental ethics and management and decision making. (General Studies—Level II, Natural Science)

### **GEG 1220-2 Map Use (1 + 2)**

This is an introductory course providing basic information on the use and interpretation of maps, map projections, map scale, map symbols, remote sensing, and Geographical Information Systems.

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### **GEG 1230-3 Weather and Climate (2 + 2)**

This is an introductory course that includes that portion of physical geography dealing with weather and climate. Both world and local patterns are analyzed, as well as short- and long-range aspects of weather dynamics.

### **GEG 1240-3 Landforms of the U.S. (3 + 0)**

Students study the physical features of the earth's surface and the shape or form of the landscape as influenced by interaction between basic earth processes and rock types, structure, climate, and weathering. U.S. and especially Colorado, examples are used to illustrate landforms.

### **GEG 1300-3 Introduction to Human Geography (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is an introduction to geographic perspectives, concepts, and methods as they apply to the study of human activities. Special emphasis is placed on patterns of human distribution, adjustments to the natural environment, land use practices, and culture traits. (General Studies—Level II, Social Sciences)

### **GEG 1400-3 World Resources (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course provides a survey of the physical resources of the world, including water, soil, vegetation, energy, and minerals. This course includes an analysis of geographic occurrence, extraction, appraisal, utilization, historic changes, and environmental issues. (General Studies—Level II, Natural Science)

### **GEG 1500-1–3 Current Topics in Geography: Variable Topics (1–3 + 0)**

Prerequisite: permission of instructor

These courses cover important topics in geography, usually involving contemporary issues. The course content will vary and the course may be repeated for credit as the course topic changes.

### **GEG 1530-1 Ghost Towns of Northern Colorado (1 + 0)**

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This course investigates the ghost towns of northeastern Colorado. Through lecture and field work, students will learn how perceptions of the land affected settlement patterns and land use in northeastern Colorado. Related topics include use of the land by Native Americans, physical geography, transportation patterns from trails to highways, planned communities and the Buffalo Commons proposal. Note: Students cannot take both GEG 1530 and GEG 3530 for credit.

**GEG 1610-1 Introduction to Planning (1 + 0)**

This course provides an overview of the role of planning in land use, different types of planning processes, public and private sector actors, skills required of planners, and planning documents and maps.

**GEG 2020-3 Geography of Colorado (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing and mathematics preassessment placement tests

This course presents the study of the physical, economic, and cultural features of Colorado. These features include climate, landforms, history, water resources, energy and minerals, mining, soil, natural vegetation, agriculture, population characteristics, the economy, current issues, as well as their interactions, and the overall geographic setting. (General Studies—Level II, Social Sciences)

**GEG 2100-2 Geography of Latin America (2 + 0)**

Prerequisite: a course in geography or permission of the instructor

This course studies the physical, political, and economic geography of Latin American countries. The course emphasizes contemporary land-use patterns and use of natural resources.

**GEG 2200-3 Geography of the United States (3 + 0)**

Prerequisites: six hours of earth science courses

This course is a survey of the geography of the U.S., including an overview of the physical characteristics, landforms, climate, soil, vegetation, and natural resources. Regions of the U.S. are studied, including the distribution of population, agriculture, industry, transportation, and culture. Geographic problems and issues are raised.

**GEG 2250-3 Introduction to Geographic Information Systems (2 + 2)**



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Prerequisites: GEG 1220 and CSS 1010 (or CMS 1010)

This is an introductory course that provides students with the basic theoretical, technical, and application knowledge of Geographic Information Systems (GIS). It introduces and provides direct experience with the techniques used to manipulate and display spatial data using GIS.

**GEG 2300-3 Geographic Analysis of Social Issues (3 + 0)**

Prerequisite: GEG 1300

This course is a geographic analysis of current social issues. Topics include urban spatial problems, such as crowding and crime, drugs and gangs, population growth, environmental perception, resource use, and culturally based land-use patterns. The administration of space, boundaries, territoriality, and spatial learning are discussed.

**GEG 3000-3 Historical Geography of the U.S. (3 + 0)**

Prerequisites: six hours of geography or permission of instructor; GEG 1300, GEG 2200, or HIS 1210 recommended

This course examines the unique interrelationships between geography and history. Topics covered include frontiers and boundaries, settlement patterns, environmental perception, sequent occupancy, changing land-use practices, migration, and urban growth. Further, the course addresses the interrelationships between different physical environments and cultural landscapes.

**GEG 3210-4 Introduction to Cartography (2 + 4)**

Prerequisite: GEG 1220

This course provides instruction in the use and interpretation of maps, as well as the tools and constructional techniques of maps. Students will construct a variety of maps at different map scales and projections and critique their effectiveness.

**GEG 3220-3 Intermediate Cartography (1 + 4)**

Prerequisite: GEG 3210

This course emphasizes the production of monochromatic, multitone, thematic maps using scribing and photographic techniques. Alternative methods of representing relief features will be explored, including

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construction of physiographic block diagrams, pictorial maps, and contour maps.

**GEG 3300-3****(NAS 3300, PSC 3300) Land Use, Culture and Conflict (3 + 0)**

Prerequisites: GEG 1400 or NAS 1000 or PSC 1010 and junior standing

This course is designed to introduce students to theories, approaches and controversies concerning use of land and resources on Indian Reservations. Reading and discussion will be directed toward questions related to differing views on land use and resources, how modernization impacts traditional settings, as well as treaties and governmental policies that govern Indian land. Case studies which illustrate current conflict/resolution issues between Native Americans and other actors such as federal, state and local governments will be examined. Credit will be granted for only one prefix. (General Studies - Level II, Social Science; Multicultural)

**GEG 3360-3 Geography of Economic Activity (3 + 0)**

Prerequisites: GEG 1000 or GEG 1300 plus six additional hours of geography and MTH 1210. ECO 2010 or ECO 2020 recommended

This course investigates the "economic landscape" and analyzes global patterns of spatial interdependence in a systems framework. Spatial economic models are examined through case studies and class exercises. The relationships between human activity and land-use patterns are examined in a world/regional context.

**GEG 3400-3 Water Resources (3 + 0)**

Prerequisites: GEG 1200 or GEG 1400, one of the following: GEG 1100, GEG 1230, or GEL 1010

This course presents an analysis of water as a major resource. It includes the study of the hydrologic cycle, competing water uses, current water problems, and approaches to water management. The relationship of water to land use is examined in terms of dams, watersheds, water laws, pollution, and flood control.

**GEG 3520-2-3 Regional Geography: Variable Topics (2-3 + 0)**

Prerequisite: six hours of earth science courses

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Specific regions of the world will be selected for in-depth study. Topics will include physical and cultural geography, demographics, economic activity, urbanization, political geography and environmental issues. The course may be repeated for credit as a different region is studied.

### **GEG 3530-1 Advanced Ghost Towns of Northern Colorado (1 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor

This course examines the ghost towns of northeastern Colorado. Through lecture and field work, students will evaluate how perceptions of the land affected settlement patterns and land use in northeastern Colorado. Additional topics to be evaluated include use of the land by Native Americans, physical geography, transportation patterns from trails to highways, planned communities and the Buffalo Commons proposal. Note: Students cannot take both GEG 1530 and GEG 3530 for credit.

### **GEG 3600-3 Urban Geography (3 + 0)**

Prerequisite: GEG 1000, GEG 1300, or URS 1000

This course examines theories of urban development and factors that affect urbanization, such as demographic change, annexation, zoning, and infrastructure development. Models of urban land use are examined in the context of cities in the United States. Students learn how to prepare and analyze census-tract maps.

### **GEG 3610-3 Principles of Land Use Planning (3 + 0)**

Prerequisites: six hours of geography, GEG 2250 recommended

In this course students learn basic land-use planning concepts and how to analyze land-use patterns, interpret land-use maps, and analyze existing land-use plans. Further, students learn how to collect relevant data, prepare a comprehensive land-use plan, and predict future planning issues. Special attention is paid to Geographic Information Systems (GIS) in land-use planning.

### **GEG 3620-3 Population, Resources, and Land Use (3 + 0)**

Prerequisites: GEG 1000 or GEG 1300, six hours in geography; GEG 1400 recommended

This course examines the distribution and density of the global population and the relationship of these patterns to world resources and development

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problems. Population shifts, including birth, death, migration, and doubling rates are analyzed. Data analysis and projections are covered.

### **GEG 3630-3 Transportation Planning and Land Use (3 + 0)**

Prerequisites: GEG 3610, six additional hours of geography

This course is an analysis of transportation systems as they relate to other types of land use. Transportation networks are examined in terms of types, patterns, and densities. Consideration is given to alternative transportation systems as they relate to energy savings, pollution prevention, and the reduction of congestion.

### **GEG 3920-2-6 Directed Study in Land Use (0 + 4-12)**

Prerequisites: 15 hours in earth science courses and approval of instructor and department chair

This course provides an opportunity for upper-division students with a strong background in earth science to pursue study in a specific topic of interest and value. The course requires permission of the instructor and chair of the Earth and Atmospheric Sciences Department and frequent meetings between student and instructor.

### **GEG 4200-3 Environmental Policy and Planning (3 + 0)**

Prerequisites: GEG 1200 or GEG 1400 and junior or senior standing; GEG 3610 or GEL 4010 recommended

This course provides an overview of environmental policy and major environmental laws in the U.S. The major statutes are analyzed in terms of purpose, scope, implementation, compliance requirements, and impact on land use. Case studies are examined in a planning context.

### **GEG 4410-3 Water Law (3 + 0)**

Prerequisites: GEG 1200 or GEG 1400 or GEG 3400 or permission of instructor

This course surveys U.S. water law and administration. Topics include (1) why we need laws regulating water use, (2) how ancient water laws influenced U.S. water law, (3) variations of surface and groundwater law, including prior appropriation, riparian, and hybrid, (4) international and interstate agreements, and (5) a special focus on water administration in the West.

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**GEG 4420-3 Wetlands (3 + 0)**

Prerequisites: GEG 1200 or GEG 1400 or GEG 3400 or permission of instructor

This course offers a broad overview of wetland landscapes. Topics include (1) spatial distribution (local and national), (2) variations in wetlands topology (salt-water versus fresh-water and warmer versus colder climates), (3) relationships between wetlands (migratory flight paths), (4) wetlands ecosystems, (5) human impacts on wetlands, (6) federal, state, and local wetlands regulations, and (7) international wetlands problems.

**GEG 4430-2 Habitat Planning (2 + 0)**

Prerequisite: junior or senior standing in geography, geology or land use or permission of instructor

This is an interdisciplinary course designed to examine the forces and impacts of urban expansion on wildlife habitats. Topics include national and local trends in urban growth, environmental ethics, economic and political issues related to habitat planning, and examination of selected case studies of habitat conservation plans.

**GEG 4610-3 Urban and Regional Planning (3 + 0)**

Prerequisites: GEG 3600, GEG 3610 or equivalent

This course studies the philosophy and scope of urban and regional planning and the principles and factors of planning and their interrelationships.

**GEG 4620-3 Residential Land Use Patterns (3 + 0)**

Prerequisite: GEG 3600 or GEG 3610 or six hours of urban studies courses

This course examines spatial patterns of urban growth, factors that affect housing, the role of nonprofit developers in the current housing market, as well as theories that explain the residential mosaic of North American cities. It includes an analysis of current housing trends as well as the housing types, densities, patterns and geographic distribution, as well as the interrelationships with other aspects of the urban environment, including infrastructure.

**GEG 4640-3 Recreational Land Use Patterns (3 + 0)**

Prerequisites: GEG 3610 or permission of instructor

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This course considers various types of recreation space, including greenbelts; open space; wilderness areas; and national, state and local parks. It relates recreational land to the land-use planning process, as well as the environmental impacts of recreation.

### **GEG 4710-3 Legal Aspects of Land Use (3 + 0)**

Prerequisite: GEG 3610 or GEL 4010 or permission of instructor

This course studies the laws, ordinances and regulations related to land use, as well as the role of federal, state and local government in regulating and controlling land use. The course makes use of case studies and local issues.

### **GEG 4840-3 Remote Sensing (3 + 0)**

Prerequisites: GEG 1220 and either GEG 1100, GEG 1240, or GEL 1010, and six hours of upper-division geography or geology courses

This course, designed for geoscience students, provides a survey of remote sensing technologies, applications, and industry. The course exposes the student to the techniques of extracting relevant information from both hardcopy and digital imagery. The application of remote sensing techniques and technology to the fields of Land-Use Planning and Geographic Information Systems (GIS) is stressed. Introductions to the electromagnetic spectrum, energy sources, radiation principles, aerial cameras, electronic imaging, and various high-altitude and space-based collection systems provide the student with the initial building blocks to a thorough understanding of remote sensing.

### **GEG 4850-3 Advanced Geographic Information Systems (2 + 2)**

Prerequisites: GEG 2250 plus upper division standing

This course offers an opportunity for upper-division students with a solid background in the fundamentals of Geographic Information Systems (GIS) to apply the analytical capabilities of this technology to model real-world situations in support of decision making. Particular emphasis is given to the specific conditions, requirements, and processing considerations surrounding effective GIS modeling and decision making. Issues of design and development of GIS and their implementation are discussed and analyzed.

### **GEG 4860-3 Applications of ARC/INFO to Natural Resources Management (1 + 4)**

Prerequisite: GEG 2250

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This course emphasizes the application of ARC/INFO and AML (ARC Macro Language) to the management of natural resources.

**GEG 4870-3 Spatial Databases Design, Implementation and Management (2 + 2)**

Prerequisite: GEG 2250 and GEG 4860

This is a course on the fundamentals of proper design, implementation and management of spatial databases. The logical and physical designs of a geographic database are studied in detail. Particular emphasis is given to the set of practical guidelines and considerations surrounding the design, implementation and management of an effective and efficient spatial database. The theory and concepts are reinforced by demonstrations and hands-on exercises using popular commercial Geographic Information Systems (GIS) and Database Management Systems (DBMS).

**GEG 4890-3 Advanced GIS Laboratory (1 + 4)**

Prerequisites: senior standing, GEG 4850, GEG 4860, GEG 4870 or permission of instructor

A senior-level capstone course for land use majors emphasizing Geographic Information Systems (GIS). Students will solve a natural resources related problem applying GIS technology. Students will prepare and present final reports for their projects. (Senior Experience)

**GEG 4950-2-15 Internship in Land Use (0 + 6-45)**

Prerequisite: Land Use major with upper division standing plus 12 upper division hours of earth science courses and permission of the chair of the earth and atmospheric sciences department

This course provides an on-the-job internship experience with a land-use-related company or agency. The experience must be done under qualified supervision and under the direction of an earth and atmospheric sciences faculty member.

**GEG 4960-3 Global Environmental Challenges (3 + 0)**

Prerequisites: Twelve hours of upper division courses in geology, geography, biology and/or meteorology or written permission of instructor, and senior standing

This course will include the identification of major global environmental problems, including causes and impacts and the interplay of economic,

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cultural, and political forces. The approach will be a geographic analysis including location, spatial distribution, density, boundaries, and physical factors such as landforms, soils, and climate. Students are responsible as individuals and groups for presentations and discussions. (Senior Experience)

## **Geology**

### **GEL 1010-4 General Geology (3 + 2)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course introduces the basic theories, concepts, and assumptions used in geology, utilizing both lecture and laboratory components. It includes internal and external processes, their products, and their effects on the environment. Students will learn to identify common rocks and minerals. A field trip is required. (General Studies—Level II, Natural Science)

### **GEL 1020-3 Geology of Colorado (3 + 0)**

Prerequisites: minimum performance-standard scores on reading, writing, and mathematics preassessment placement tests

This course introduces the basic theories, concepts, and assumptions used in geology, focusing on the state of Colorado. The major geological provinces; mineral resources; common rock-forming minerals; and sedimentary, igneous, and metamorphic rocks of Colorado are covered. One field trip required. (General Studies—Level II, Natural Science)

### **GEL 1030-4 Historical Geology (3 + 2)**

Prerequisite: GEL 1010 or permission of instructor

This course presents the origin and history of the Earth as well as the evolution of its life, based on the rock and fossil record. The course also reviews the changing geography of the Earth through geologic time, emphasizing the theory of plate tectonics. A field trip is required. (General Studies-Level II, Natural Science)

### **GEL 1150-3 Oceanography (3 + 0)**

Prerequisites: minimum performance-standard scores on reading, writing, and mathematics preassessment placement tests



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This introductory course studies the world's oceans, including historical explorations, physical and biological processes, energy sources, ocean resources, marine provinces, and geology of ocean basins. The course emphasizes global distribution, use, and control of ocean resources, and ocean pollution. (General Studies—Level II, Natural Science)

**GEL 1200-2 Gem and Mineral Collecting in Colorado (1 + 2)**

Corequisite: Physical ability to endure strenuous hiking at high elevations is necessary

This course focuses on the origin, geography and areas of occurrence of gemstones, as well as the physical mineral properties of gemstones.

**GEL 1500-1-3 Current Topics in Geology: Variable Topics (1-3 + 0)**

These courses cover topics of current geologic interest. The course content will vary and the course may be repeated for credit as the course topic changes.

**GEL 1510-1 Geology of Red Rocks Park and Vicinity (1 + 0)**

Prerequisite: GEL 1010 recommended

This course examines the geology of Red Rocks Park and vicinity, including rocks formed over a period of approximately two billion years. The geologic history includes Colorado's famous "disappearing" mountain range (the Ancestral Rocky Mountains), evidence of ancient oceans and deserts, dinosaur bones and tracks and the uplift of the modern-day Rocky Mountains. Note: Students cannot take both GEL 1510 and GEL 3510 for credit. (General Studies—Level II, Natural Science)

**GEL 1520-2 Garden of the Gods—Front Range Geology (2 + 0)**

Prerequisite: GEL 1010 recommended

This course examines the geology along the Front Range from Boulder to Colorado Springs through rock exposures covering a span of approximately two billion years. Along with basic concepts of geology, the formations exposed along the Front Range, including their ages, rock types, origins and economic products, are examined within a context of geologic history. Note: Students cannot take both GEL 1520 and GEL 3520 for credit. (General Studies—Level II, Natural Science)

**GEL 1530-2 Geology of the Colorado Plateau (2 + 0)**

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Prerequisites: None; GEL 1010, GEL 1510, GEL 1520 and/or GEL 1560 are recommended

This course examines the geology of the eastern Colorado Plateau, including the geology of the Colorado National Monument, Arches National Park and northern and southern Canyonlands National Parks. Along with basic concepts of geology, the formations exposed in the eastern Colorado Plateau, including their ages, rock types and origins, are examined. Historical geology and geomorphology come to life in this beautiful, desolate, arid country. Note: Students cannot take both GEL 1530 and GEL 3530 for credit.

**GEL 1540-2 Geologic and Environmental Hazards—Denver and Vicinity (2 + 0)**

Prerequisite: GEL 1010 recommended

This course examines the geologic and environmental hazards around the Denver region, including mass wasting, swelling clays, subsidence and flooding, as well as contamination and remediation efforts at the Lowry Landfill and the Rocky Mountain Arsenal. Future homeowners learn the meaning of "buyer beware." Note: Students cannot take both GEL 1540 and GEL 3540 for credit.

**GEL 1550-2 Geology of the Great Sand Dunes National Monument (2 + 0)**

Prerequisite: GEL 1010 recommended

This course emphasizes the processes and landforms associated with the eolian (wind) and desert environments at the Great Sand Dunes National Monument, located in the San Luis Valley between the San Juan and Sangre de Cristo Mountains. Investigations of the dune fields allow students to identify various types of dunes, as well as damage related to desertification. The relationships of sand source areas, cross-bedding and transport directions are investigated. Note: Students cannot take both GEL 1550 and GEL 3550 for credit.

**GEL 1560-2 Canoeing the Canyon Country (2 + 0)**

Prerequisites: GEL 1010, GEL 1510, GEL 1520 and/or GEL 1530 recommended

This course examines the spectacular geology along a 32-mile stretch of the Colorado River between Fruita, Colorado and Westwater, Utah. Along with basic concepts of geology, the formations exposed in this portion of the

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eastern Colorado Plateau, including their ages, rock types and origins, are discussed. Historical geology and geomorphology come to life in this geologic wonderland. Note: Students cannot take GEL 1560 and GEL 3560 for credit.

**GEL 1570-2 Geology of the Flattops Volcanic Wilderness Area (2 + 0)**

Prerequisite: GEL 1010 recommended

This course emphasizes the igneous processes and products of the Flattops Wilderness Area of northwestern Colorado. Students study the lava flows exposed in the area and determine their source area. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1570 and GEL 3570 for credit.

**GEL 1580-2 Geology of the Wheeler Geologic Area (2 + 0)**

Prerequisite: GEL 1010 recommended

This course emphasizes the igneous processes and products of the Wheeler Geologic Area of southwestern Colorado. Students study the pyroclastic deposits exposed in the area and determine the sequence of events. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1580 and GEL 3580 for credit.

**GEL 1710-2 Terrestrial Navigation (1 + 2)**

This course is an introduction to the science of land navigation. Students will use celestial sights, maps and Global Positioning System (GPS) to locate positions in the field. There are required field exercises.

**GEL 3050-4 Mineralogy and Petrology (3 + 2)**

Prerequisite: GEL 1010

This course examines minerals and rocks that make up the Earth's crust, including their origin, occurrence and identification. In addition to the recognition of hand specimens, this course utilizes the petrographic microscope and X-ray crystallography to identify minerals and rocks.

**GEL 3060-4 Stratigraphy and Structure (3 + 2)**

Prerequisite: GEL 1010; GEL 3050 recommended

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This course analyzes vertical and horizontal stratigraphic and structural relationships within the Earth's crust. The stratigraphic portion of the course emphasizes transgressive and regressive sequences and unconformity boundaries (sequence stratigraphy) while the structural portion emphasizes three-dimensional relationships found in folded and faulted rocks. Field trips are required.

### **GEL 3120-4 Advanced Geomorphology (3 + 2)**

Prerequisites: GEL 3060 or permission of instructor

This course is detailed analysis of the Earth's landforms, including their origins and sequential changes due to internal and surficial processes. Maps and aerial photographs are extensively used for geomorphic interpretations. Field trips are required.

### **GEL 3150-3 Hydrogeology (2 + 2)**

Prerequisites: GEL 1010, MTH 1110 and MTH 1210 recommended

This course is a practical approach to the study of groundwater flow, with emphasis given to its chemistry, mode of migration, pollution, and relationship to the geologic environment. The course includes methods of exploration, well-log analysis, numerous laboratory exercises and field sampling. A field trip is required.

### **GEL 3420-4 Soil Resources (3 + 2)**

Prerequisites: GEL 3050 and GEL 3120 or GEG 1240, or permission of instructor

This course analyzes the materials and processes that combine to produce various soil types. Soil types are examined in relationship to climate, landforms, vegetation, and geology, as well as in relationship to land-use patterns. Required field trips investigate soil mapping techniques.

### **GEL 3440-4 Energy and Mineral Resources (3 + 2)**

Prerequisites: GEL 3050 and GEG 1400, or permission of instructor

This course investigates mineral resources and reserves that serve our industrial society. It includes a detailed examination of the origin, physical characteristics, and distribution of mineral resources, including metals and nonmetals, and energy resources, including fossil fuels and alternative energy resources. Field trips are required.

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**GEL 3510-1 Advanced Geology of Red Rocks Park and Vicinity (1 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor

This course requires an analytical approach to the geology of Red Rocks Park and vicinity, including rocks formed over a period of approximately two billion years. The geologic history includes Colorado's famous "disappearing" mountain range (the Ancestral Rocky Mountains), evidence of ancient oceans and deserts, dinosaur bones and tracks and the uplift of the modern-day Rocky Mountains. Note: Students cannot take both GEL 1510 and GEL 3510 for credit. (General Studies—Level II, Natural Sciences)

**GEL 3520-2 Advanced Garden of the Gods—Front Range Geology (2 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor

This course requires an analytical approach to the geology along the Front Range from Boulder to Colorado Springs through rock exposures covering a span of approximately two billion years. Along with basic concepts of geology, the formations exposed along the Front Range, including their age, rock types, origins and economic products, are analyzed within a context of geologic history. Note: Students cannot take both GEL 1520 and GEL 3520 for credit. (General Studies—Level II, Natural Science)

**GEL 3530-2 Advanced Geology of the Colorado Plateau (2 + 0)**

Prerequisites: nine hours of geography or geology or permission of instructor; GEL 3510, GEL 3520 and/or GEL 3560 recommended

This course requires an analytical approach to the geology of the eastern Colorado Plateau, including the geology of the Colorado National Monument, Arches National Park, and northern and southern Canyonlands National Parks. Along with basic concepts of geology, the formations exposed in the eastern Colorado Plateau, including their ages, rock types and origins, are analyzed. Historical geology and geomorphology come to life in this beautiful, desolate, arid country. Note: Students cannot take both GEL 1530 and GEL 3530 for credit.

**GEL 3540-2 Advanced Geologic and Environmental Hazards—Denver and Vicinity (2 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor

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This course requires an analytical approach to the geologic and environmental hazards around the Denver region, including mass wasting, swelling clays, subsidence and flooding, as well as contamination and remediation efforts at the Lowry Landfill and the Rocky Mountain Arsenal. Future homeowners learn the meaning of "buyer beware." Note: Students cannot take both GEL 1540 and GEL 3540 for credit.

### **GEL 3550-2 Advanced Geology of the Great Sand Dunes National Monument (2 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor

This course analyzes the processes and landforms associated with the eolian (wind) and desert environments at the Great Sand Dunes National Monument, located in the San Luis Valley between the San Juan and Sangre de Cristo Mountains. Analysis of the dune fields allows students to identify various type of dunes, as well as damage related to desertification. The relationships of sand source areas, cross-bedding and transport directions are analyzed. Note: Students cannot take both GEL 1550 and GEL 3550 for credit.

### **GEL 3560-2 Advanced Canoeing the Canyon Country (2 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor; GEL 3510, GEL 3520 and/or GEL 3530 recommended

This course requires an analytical approach to the spectacular geology along a 32-mile stretch of the Colorado River between Fruita, Colorado and Westwater, Utah. Along with basic concepts of geology, the formations exposed in this portion of the eastern Colorado Plateau, including their ages, rock types and origins, are analyzed. Historical geology and geomorphology come to life in this geologic wonderland. Note: Students cannot take both GEL 1560 and GEL 3560 for credit.

### **GEL 3570-2 Advanced Geology of the Flattops Volcanic Wilderness Area (2 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor; GEL 3050 recommended

This course requires an analytical approach to the igneous processes and products of the Flattops Wilderness Area of northwestern Colorado. Students analyze the lava flows exposed in the area to determine their source area. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1570 and GEL 3570 for credit.

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### **GEL 3580-2 Advanced Geology of the Wheeler Geologic Area (2 + 0)**

Prerequisite: nine hours of geography or geology or permission of instructor; GEL 3050 recommended

This course requires an analytical approach to the igneous processes and products of the Wheeler Geologic Area of southwestern Colorado. Students analyze the pyroclastic deposits exposed in the area and determine the sequence of events. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1580 and GEL 3580 for credit.

### **GEL 3920-2-6 Directed Study in Geology (0 + 4-12)**

Prerequisites: 15 hours in geology; approval of instructor and department chair

This course provides an opportunity for upper-division students with a strong background in geology to pursue study in a specific topic of interest and value. The course requires permission of the instructor and chair of the Earth and Atmospheric Sciences Department and frequent meetings between student and instructor.

### **GEL 4000-3 Environmental Geology (2 + 2)**

Prerequisites: GEL 1010 plus a minimum of six hours in geology or physical geography or permission of instructor; GEL 3120 (or GEG 1240) and GEL 2020 strongly recommended

The close relationship of the environment to the geology of the earth is examined. Basic geology, geologic processes, and geologic techniques are applied to the environment in a series of practical problems. Interpretation of topographic and geologic maps is required. Natural geologic hazards are revealed in a series of actual case studies performed by the student.

### **GEL 4010-3 Environmental Hazards and Planning (3 + 0)**

Prerequisites: GEL 4000; GEG 3610 recommended

This course evaluates environmental hazards relative to various land-use patterns. It utilizes case studies and Geographical Information Systems (GIS) to examine hazards and prepare model and alternative plans. Environmental audit procedures and environmental impact statements (EIS) are studied as part of the planning process.

### **GEL 4150-3 Hydrology (2 + 2)**

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Prerequisites: GEL 3150

This course examines surface and subsurface waters with respect to water flow, drainage systems, storage, pollution and environmental relationships. The hydrologic cycle is studied with respect to surface water distribution. This course uses knowledge gained from GEL 3150 (Hydrogeology) in practical applications.

### **GEL 4950-2-15 Internship in Geology (0 + 6-45)**

Prerequisites: land use major with geology emphasis with upper division standing plus 12 upper-division hours in geology, permission of the chair of the earth and atmospheric science department

This course provides an on-the-job internship experience with a geology-related company or agency. The experience must be done under qualified supervision and the auspices of an earth and atmospheric sciences faculty member.

### **GEL 4960-3 Environmental Field Studies (1 + 4)**

Prerequisites: 12 hours of upper-division courses in geology, physical geography, biology, and/or meteorology or written permission of instructor; completion of all Level I and Level II General Studies course requirements, senior standing

A senior-level capstone course for land use majors. Students will use field geologic techniques which are essential to environmental site analysis. These techniques will include preparation of various maps, use of geologic surveying instruments and field methods of description of earth materials. Students will prepare and present final reports from these exercises. (Senior Experience)

## **German**

### **GER 1010-5 Elementary German I (5 + 0)**

This is an introductory course in German, including pronunciation, grammar, and reading, with emphasis on speaking and understanding.

### **GER 1020-5 Elementary German II (5 + 0)**

Prerequisite: GER 1010, or one or two years of high school German

This is a continuation of GER 1010. (General Studies—Level I, Communications)



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### **GER 1110-3 Basic Conversational German (3 + 0)**

A course designed to teach the essentials of the German language through a conversational approach.

### **GER 1120-3 Basic Conversational German (3 + 0)**

Prerequisite: GER 1110 or equivalent or permission of instructor

This course is a continuation of GER 1110.

### **GER 1800-1–15 International German Year I (1–15 + 0)**

This is a variable-credit course for first-year students learning German in a study-abroad setting. It recognizes an approved study-abroad educational experience in German speaking, comprehension, reading, and writing.

### **GER 2110-3 German Reading and Conversation (3 + 0)**

Prerequisite: one year of college German or equivalent or permission of instructor

This course prepares the student to read and to communicate with ease in German. It emphasizes vocabulary and idiomatic phrases used in everyday language.

### **GER 2120-3 German Civilization (3 + 0)**

Prerequisite: one year of college German or equivalent or permission of instructor

This course emphasizes the broadening of reading and conversational skills. It introduces the student to various aspects of German civilization, from its geography and history to its philosophical and political thought, arts, music, and modern living.

### **GER 2310-3 German Vocabulary Building and Grammar (3 + 0)**

Prerequisite: one year of college German or equivalent or permission of instructor

This course is designed to strengthen the student's grammatical background by reinforcing old principles and introducing new, more advanced principles of grammar and to increase vocabulary.

### **GER 2320-3 German Composition and Free Writing (3 + 0)**

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Prerequisite: one year of college German or equivalent or permission of instructor

This course is designed to strengthen the student's writing skills. It exposes the student to various topics of interest to today's college student. In addition to the textbook, informative films will be presented and articles from German newspapers and magazines will be used.

### **GER 2800-1-15 International German Year II (1-15 + 0)**

Prerequisite: one year of college German or equivalent

This variable-credit course recognizes second-year study of German language and culture in an approved study-abroad setting.

### **GER 3010-3 Third Year German Conversation (3 + 0)**

Prerequisite: GER 2110 or 2120 or four years of high school German

This course strengthens conversational ability with more complicated idiomatic and structural elements, using techniques such as skits, debates, and small-group discussions to improve fluency and broaden the scope of communication. Conducted in German.

### **GER 3150-3 German Phonetics: Theory and Practice (3 + 0)**

Prerequisite: two years of college German or equivalent or permission of instructor

This course covers improvement of pronunciation and speech habits based on an understanding of the phonetics of German. After an introduction to the basic speech mechanism through principles of linguistics, the course offers practice in pronunciation through the declamation of selected texts.

### **GER 3200-3 German Culture and Civilization (3 + 0)**

Prerequisites: two years of college German or equivalent or permission of instructor and satisfaction of Level I General Studies course requirements

This course is an advanced German conversational approach to the main cultural events that have shaped German lifestyles. Historical events, as well as modern German lifestyles of Germany, Austria, and Switzerland are discussed. The format is reading-discussion, conducted in German. Students are required to give oral presentations. (General Studies—Level II, Arts and Letters)

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### **GER 3210-3 Survey of German Literature I (3 + 0)**

Prerequisite: two years of college German or equivalent or permission of instructor

This course provides an insight into German historical and cultural development through selected readings in German literature, from its beginning to the 18th century.

### **GER 3220-3 Survey of German Literature II (3 + 0)**

Prerequisite: two years of college German or equivalent or permission of instructor

This course covers the history of German literature of the 18th, 19th, and early 20th centuries, including selected readings of principle German authors, lectures on biography and criticism, and recitation. Conducted in German.

### **GER 3230-3 Contemporary German Writers (3 + 0)**

Prerequisite: two years of college German or equivalent or permission of instructor

After a rapid survey of philosophical, political, economic, and social backgrounds, this course emphasizes works of distinguished contemporary authors. Lectures on biography and criticism are interspersed as convenient. A term paper is assigned. Conducted in German.

### **GER 3300-3 Advanced German Grammar (3 + 0)**

Prerequisites: GER 2310, 2320 or permission of instructor

This course is designed to prepare the student for the demands of the use of literary and scientific German at advanced levels. The student is led into an appreciation of the deeper structures of the language and the functional aspects of grammar in communication.

### **GER 3400-3 German for Business I (3 + 0)**

Prerequisite: GER 2310 or permission of instructor

This course is for students who plan to do business with people in German-speaking countries. Incorporates specialized language pertaining to marketing, banking, the structure of corporations, and the code of behavior in the business world; the social protection of the gainfully employed;

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transportation; import; and export. Excellent exercises for reading/comprehension on today's topics are included.

### **GER 3410-3 Translation Techniques for Scientific Materials (3 + 0)**

Prerequisite: GER 2320 or permission of instructor

This course is designed for the understanding of writings in the field of science. Attention is given to the specialized vocabulary, idioms, and sentence structure in this field. Translations on up-to-date topics are from German into English, facilitating reading and comprehension.

### **GER 3800-1-15 International Advanced German (1-15 + 0)**

Prerequisite: junior or senior standing in German or equivalent

This course recognizes upper-division study in language, culture, and literature in a study-abroad setting. It uses a variety of methods and includes reading, writing, and discussion seminars in German.

### **GER 4020-3 Advanced German Composition (3 + 0)**

Prerequisite: three hours of third-year college German

This course is an advanced study of the application of vocabulary, idiomatic expressions, and grammatical structures necessary for effective written communication. It includes review and expansion of various grammatical topics, exercises on stylistics, and considerable expansion of the student's vocabulary. Conducted in German.

### **GER 4200-3 Major German Authors (3 + 0)**

Prerequisites: nine hours of German above 1020 or permission of instructor. Senior standing necessary if used for Senior Experience requirement

The course traces in representative works the artistic and intellectual development of major German authors who have gained a place in world literature. Class periods will be devoted to historical background, biographies, group discussions and analysis. Class is conducted in German, requiring oral and written reports. (Senior Experience)

### **GER 4210-3 Advanced Conversation: Present-day Germany (3 + 0)**

Prerequisite: three hours of third-year college German or permission of instructor

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This course is designed to help the student develop an understanding of present-day Germany. Recent and current socioeconomic changes and political trends are emphasized. Articles in recent issues of a leading German periodical are used as basis for classroom discussion, student reports, and themes.

### **GER 4400-3 German for Business II (3 + 0)**

Prerequisites: nine hours of German above 1020 or permission of instructor. Senior standing necessary if used for Senior Experience requirement

The course focuses on business topics with specialized language pertaining to industry, marketing, finance, social welfare, the consumer in general and the environment. Class is conducted in German, requiring oral and written reports. (Senior Experience)

### **GER 4410-3 Advanced Translation Techniques (3 + 0)**

Prerequisites: GER 3310 or permission of instructor. Senior standing necessary if used for Senior Experience requirement

This course practices the different translation techniques (from German to English and from English to German) in a variety of materials taken from economics, law, medicine, the fine arts, biographies, geography, history, and others. Attention is given to the unique tone of each document. (Senior Experience)

## **Health Care Management**

### **HCM 3010-3 Health Care Organization (3 + 0)**

Prerequisite: junior standing

Corequisite: 100 hours volunteer work in a U.S. health care facility for those students with no prior health care experience

This courses analyzes organizational structure, the nature of health, and health care delivery. Emphasis is placed on the interrelatedness of cultural, economic, political, and social aspects of health care delivery, along with its services and management. Disease origins and epidemiology are explored.

### **HCM 3020-3 Management Principles in Health Care (3 + 0)**

Prerequisite: HCM 3010 or may be taken concurrently

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This is a course that is designed to provide a general orientation to management practices in the field of health care. Emphasis is placed on management concepts, processes, and theoretical content considered necessary for people who intend to practice in a health care management position.

### **HCM 3030-3 Health Care Jurisprudence (3 + 0)**

Prerequisite: HCM 3010 or may be taken concurrently

This course examines the legal and ethical issues involved in the management and delivery of health care services. Emphasis is placed on negligence, contracts, confidentiality, labor relations, and current medical/ethical issues.

### **HCM 3300-3 Management Issues and Health Policy (3 + 0)**

Prerequisites: HCM 3010 and HCM 3020 or may be taken concurrently

This course is designed to discuss the role of the health care manager in relation to health care planning, health policy, and other related management issues. The political process as it relates to policy development and health planning will be explored.

### **HCM 4020-3 Human Resource Management in Health Care (3 +0)**

Prerequisites: HCM 3010 and 3020 or may be taken concurrently

This course is specifically designed to analyze human resource management functions as they affect employee productivity and satisfaction in health services organizations. The course stresses functions, structure, laws, and principles that are significant in human resource management.

### **HCM 4030-3 Financial Management in Health Care (3 + 0)**

Prerequisites: HCM 3010 and ACC 2010, and a departmentally approved computer course or permission of instructor

This course surveys the organizational and operational aspects of fiscal analysis and control of health care institutions. Emphasis is placed on the practical processes involved in the determination and analysis of revenues, costs, rates, working capital levels, budgets, and uses of the computer.

### **HCM 4040-3 Health Care Economics (3 + 0)**

Prerequisite: HCM 3010 and ECO 2020

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This course examines the major economic issues facing the health care industry. Emphasis is on the major elements of economic theory from a macro-economic perspective and how these theories are applied in the health service sector.

### **HCM 4500-2 Health Care Management Pre-Internship (2 + 0)**

Prerequisites: all 3000-level HCM courses, HCM 4020, all required support courses (This course must be taken the semester prior to HCM 4510.)

This is a preparatory course required of HCM majors prior to taking HCM 4510, Health Care Management Internship. Students are required to prepare a résumé, develop interview skills, determine placement agency and preceptor, and develop a proposal for the internship under faculty guidance.

### **HCM 4510-6 Health Care Management Internship (1 + 15)**

Prerequisites: HCM 4500, plus either HCM 4030 or 4040

A capstone course designed to provide the student the opportunity to integrate and operationalize all previously learned health management knowledge and skills. The student completes a health management project. The management area of study and the internship setting are mutually agreed upon by the student, the faculty member, and the health facility preceptor. (Senior Experience)

## **Health Education Services**

### **HES 1050-3 Dynamics of Health (3 + 0)**

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

An introductory course that investigates contemporary health issues. Emphasis is placed on those health issues that most frequently confront the college student. Subjects surveyed are current biological, psychological, sociological, and cultural factors that influence health in a changing society. Personal involvement in planning health improvement behaviors is encouraged through experiential learning. (General Studies—Level II, Social Sciences)

### **HES 2000-3 Health Politics and Policy (3+0)**

Prerequisites: permission of instructor

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A basic study of the political issues impacting the planning and implementation of health care policy. Emphasis will be concentrated on the major factors that are dictating health care reform. The changing health care environment and the need for a universal/national health care policy will be considered. (General Studies, Level II, Social Sciences)

**HES 2040-3 Introduction to Nutrition (3 + 0)**

Prerequisites: satisfaction of the General Studies Level I Mathematics course requirement, ENG 1020, and high school chemistry or permission of instructor

This course is a study of essential nutrients and their function in promoting total well-being of the individual. Necessary food requirements are analyzed and ways of satisfying these requirements are identified. (General Studies—Level II, Natural Science)

**HES 2150-3 Alternative Therapies for Health and Healing (3 + 0)**

Prerequisite: HES 1050 or permission of instructor

This course is designed to acquaint students with a variety of nontraditional health and healing modalities in use in the United States today. It provides the basis for understanding the mechanisms and principles by which therapeutic responses are produced. The student will be required to develop and present a report related to a specific therapeutic modality. (General Studies, Level II, Natural Science)

**HES 2180-3 AIDS: Acquired Immune Deficiency Syndrome (3 + 0)**

This course is designed to acquaint non-health related majors with the dynamics surrounding HIV disease. It provides a forum to discuss the biological, psychological, social, cultural, economical, ethical, legal, and political ramifications of HIV disease. (General Studies—Level II, Social Sciences)

**HES 2750-3 Introduction to Holistic Health (3 + 0)**

Holistic health is the view that health is a complex combination of mind, body and spirit. This view takes into account the physical and social environment, is patient-centered, with the doctor and patient working in tandem toward positive health and wellness. This course explores biological, behavioral, cognitive, emotional, social, and spiritual factors in health, the research supporting a holistic perspective, and practical applications of these ideas.



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### **HES 3070-3 Parental Health Care Issues (3 + 0)**

Prerequisite: PSY 3250

This course is designed to prepare the student for providing anticipatory guidance to parents in promoting the biological, psychological, and social health of their children. Emphasis is placed on health maintenance and illness/injury prevention. Consideration is given to the management of health problems and available resources.

### **HES 3080-3 Maternal and Child Nutrition (3 + 0)**

Prerequisite: HES 2040 or permission of instructor

This course is designed to increase the student's knowledge about the physiological, psychological, sociological, and cultural factors that influence nutritional needs and eating habits of the growing family. Nutrient requirements, dietary planning guidelines, and techniques for assessing the nutritional status will be presented for the following developmental levels: the pregnant and lactating woman, the infant, the preschool and school-age child, and the adolescent.

### **HES 3100-3 Nutrition and Aging (3 + 0)**

Prerequisite: HES 2040 or permission of instructor

This course is designed to provide students with knowledge about the physiological, psychological and socioeconomic changes that accompany aging and their impact on the dietary practices of the aging population. Nutritional education relevant to the older citizen is emphasized, including identification of community resources available to support older citizens in augmenting their food choices.

### **HES 3200-3 Nutrition and Sports Performance (3 + 0)**

Prerequisite: HES 2040 or permission of instructor

This course is designed to enable students, through application of the principles of nutrition, to improve their health, fitness and physical performance within the limits set by genetic endowment and level of training.

### **HES 3300-1 Research (1 + 0)**

Prerequisite: a statistics course prior to or concurrent

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Corequisite: NUR 3400 or HES 3420

This course introduces health professions students to the research process and terminology and acquaints them with a variety of research methodologies for scientific inquiry.

### **HES 3420-2 Research: Gerontology Critique (2 + 0)**

Prerequisite: a statistics course prior to or concurrent

Corequisite: HES 3300

Students critique current gerontology research studies for applicability of the findings to the field of aging. Students identify researchable problems in the gerontology field and have experiential learning with steps of the research process.

### **HES 3450-3 Dynamics of Disease (3 + 0)**

Prerequisites: satisfaction of Level I General Studies course requirements, and BIO 1000 or 1080 and 1090, or permission of instructor

This course is designed to acquaint non-health-related majors with the dynamics of disease and human body responses to a variety of stressors. The course provides a conceptual basis for understanding the mechanisms and principles by which pathological consequences are produced. The student will be required to develop and test a hypothesis related to a potential or actual health problem. (General Studies—Level II, Natural Science)

### **HES 3500-3 Intermediate Nutrition (3 + 0)**

Prerequisites: ENG 1010 and ENG 1020; General Studies Level I Mathematics; HES 2040; BIO 1000 or 1080 and 1090

This course is a continuation of HES 2040, Introduction to Nutrition. Digestion, absorption, transport and metabolism will be examined in relation to human health, fitness and prevention of disease. Biologic, psychologic, sociologic and cultural factors will be considered.

### **HES 3600-3 Ethical Decision Making in Health Care (3 + 0)**

Prerequisite: major in health care related field

A course designed to assist nurses and others in health care fields to become familiar with an ethical decision-making model, apply ethical theories to

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dilemmas to determine courses of action and adopt an appropriate ethical decision-making framework for their own clinical practice.

**HES 3650-1 Ethical Decision Making in Health Care (1 + 0)**

Corequisite: NUR 3650 or HES 3660

This course assists nurses and other health care professionals to become familiar with an ethical decision making model, principles of biomedical ethics and selected normative theories of ethics in health care.

**HES 3660-2 Ethical Decision Making: Application to Gerontology (2 + 0)**

Corequisite: HES 3650

This course assists students who are interested in the field of gerontology to apply ethical values, principles and theories to dilemmas in the gerontology field and to adopt an appropriate decision making framework for their own gerontology practice.

**HES 3750-3 Clinical Pathophysiology I (3 + 0)**

Prerequisite: BIO 2320 or equivalent

This course familiarizes the student with the nature of pathophysiology utilizing major conceptual areas as it evolves from the incipient stage to full development. Pertinent bio-chemical and metabolic derangements are correlated with the cellular structure of the body by applying systems theory. The student should have background knowledge in normal anatomy and physiology.

**HES 3800-4 Clinical Pathophysiology (4 + 0)**

Prerequisite: BIO 2320 or equivalent

This course is designed to familiarize the student with the nature of pathophysiology using major conceptual areas, as it evolves from the incipient stage to full development. Pertinent biochemical and metabolic derangements are correlated with the cellular structure of the body by applying systems theory. The student should have background knowledge in normal anatomy and physiology.

**HES 3810-3****(BIO 3530) Physiology of Aging for Non-Biology Majors (3 + 0)**

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Prerequisites: BIO 1000 or equivalent, completion of all Level I General Studies course requirements or permission of instructor

This course views aging from both the biological and the physiological perspectives. Theories on the biology of aging and cultural variations of aging will be explored. The concepts of continuity and change will be used to study the cellular and molecular events throughout the lifespan that lead to aging and disease. Causes, physiological and pathological changes, and factors that contribute to life prolongation and the strengthening of physiologic competence to improve the quality of life as individuals age will be addressed. (General Studies-Level II, Natural Science)

**HES 3820-3 Health Care Counseling (3 + 0)**

This course is designed to prepare students to operationalize concepts and theories of health care counseling. The focus of this course is for students and professionals whose primary goal or role is not counseling, although counseling may be an important part of their responsibility. This course is designed for teachers, nurses, health educators and allied health professionals.

**HES 4100-1-4 Gerontology Topics: Variable Topics (1-4 + 0)**

Prerequisites: junior or senior standing and/or permission of instructor

This course focuses on gerontology topics and skills needed in the field of gerontology. The course is designed to provide an educational forum for integrating the gerontology theoretical base and the study of special gerontology issues and problems. This course may be repeated for credit under different topics.

**HES 4520-3-6 Internship in Gerontology (0 + 6-15)**

Prerequisites: SOC 1040 and PSY 3270 and HES 3810 or BIO 3530, and all but one gerontology orientation options course

Restrictions: students desiring a minor or certificate in gerontology need to register for at least three semester hours; students desiring a major in gerontology need to register for at least six semester hours

This course integrates and applies biological, psychological and sociological theories and all previously learned gerontology knowledge and skills to aging individuals in a gerontology setting. Student must meet with the gerontology advisor the semester before enrolling to arrange their internship site. (Senior Experience)

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**HES 4750-3 Clinical Pathophysiology II (3 + 0)**

Prerequisite: HES 3750

This course provides an advanced understanding of pathophysiologic conditions utilizing systems theory. Pertinent bio-chemical and metabolic derangements are correlated with cellular structure to understand selected disease processes. The student should have background knowledge in normal anatomy and physiology.

## **History**

### **HIS 1000-3 American Civilization (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

American Civilization is an entry-level American history course designed to trace the roots of contemporary America. (General Studies—Level II, Historical)

### **HIS 1010-3 Western Civilization to 1715 (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

A survey of the development of the culture and institutions of Western civilization: the earliest civilizations of the Middle East, the transitions of the classical Mediterranean world, and the syntheses of Western Europe in the medieval and early modern periods. (General Studies—Level II, Historical)

### **HIS 1020-3 Western Civilization since 1715 (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

A history and culture of Western civilization from 1715 to the present: the old regime and revolutions, 19th-century nationalism and liberalism, and the crises of wars and values in the 20th century. (General Studies—Level II, Historical)

### **HIS 1100-3 American West (3 + 0)**

Treats the growth and development of the Trans-Mississippi West from 1540 to 1900. Special attention will be paid to the economic and social factors that made the West a distinct region.

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### **HIS 1110-3 Colorado History I (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

History of the growth and development of Colorado, with primary emphasis on the 19th century. Examines Native American influence; Spanish, French and U.S. exploration; mining and trapping; and early settlements and pioneer life. (General Studies—Level II, Historical)

### **HIS 1210-3 American History to 1865 (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

Surveys the European background of American history, the colonial period, the Revolution, the development of the U.S. from Washington through Jackson, the sectional differences of the 1840s and 1850s, and the Civil War. (General Studies—Level II, Historical)

### **HIS 1220-3 American History since 1865 (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

This course covers the immediate background to present-day America, beginning with the Civil War and culminating with World War II. Such topics as industrialism, emergence of the U.S. as a world power, Progressivism, the First World War, the Roaring Twenties and the Great Depression will be treated. (General Studies—Level II, Historical)

### **HIS 1250-3 China, Japan, Korea since 1800 (3 + 0)**

Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests

This course covers China, Japan and Korea since 1800 emphasizing change and continuity in their politics, economies and cultures. The course treats the historical tradition in East Asia, its erosion by internal and external challenges, the struggle of East Asian people to adjust to the new world order and their effort to rebuild after World War II. The contribution of East Asian immigrants to American civilization will be considered. (General Studies—Level II, Historical)

### **HIS 1400-3 History of Popular Culture (3 + 0)**

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This is an introductory course into the history of American popular culture. Students will learn about the relationship of popular culture (popular music, movies, television and the popular cultural expressions) and society in the 20th century.

**HIS 1530-3 Sports in America (3 + 0)**

Sports in America traces the history of modern sports from the 19th century to the present. This course explores how American institutions and traditions have shaped sports and how American expectations of sports have evolved over 200 years.

**HIS 1650-3****(WMS 1650) Women in U.S. History (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

Emphasizes women's changing roles in American history from 1607 to the present. The course covers the nature of women's work and their participation in the family, church, and reform movements in the colonial and Republican periods, and the 19th and 20th centuries. We witness the emergence of the modern woman in the 20th century, as well as the re-emergence of the women's movement. The course stresses both the changes and the continuities over the last 300 years. Credit will be granted for only one prefix: HIS or WMS. (General Studies—Level II, Historical)

**HIS 1910-3****(CHS 1010) History of Meso-America: Pre-Columbian and Colonial Periods (3 + 0)**

Prerequisites: CHS 1000 and minimum performance standard scores on reading and writing preassessment placement tests

This course provides an opportunity to study the indigenous cultures of Meso-America during the pre-Columbian period and focuses on social, artistic, scientific and engineering artifacts before and after the conquest of Mexico and the Southwestern U.S. by Spain. Credit will be granted for only one prefix: HIS or CHS. (General Studies—Level II, Historical; Multicultural)

**HIS 1920-3****(CHS 1020) History of the Chicano in the Southwest: Mexico and U.S. Periods (3 + 0)**

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Prerequisites: CHS 1010 or permission of instructor, minimum performance standard scores on reading and writing preassessment tests

This course begins with the Mexican War of Independence (1810) and concludes with an in-depth study of the historical development of the contemporary Chicano world. This historical survey provides an overview of the Mexican American and Chicano population in the United States. The class will study complex ethnic, class, gender, generational and regional relations within this group and within the larger multicultural environment of 19th and 20th century North America. Credit will be granted for only one prefix: HIS or CHS. (General Studies—Level II, Historical; Multicultural)

### **HIS 1930-3**

#### **(NAS 1930) History of Indigenous/Hispanic Americans (3 + 0)**

Prerequisites: minimum performance standard scores of reading, writing, and mathematics preassessment placement tests

This course traces the development of indigenous and Indo-Hispanic civilization in North America from prehistoric origins to the present. Credit will be granted for only one prefix: HIS or NAS. (General Studies—Level II, Historical; Multicultural).

### **HIS 1940-3**

#### **(AAS 1130) Survey of African History (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

This course surveys the major developments on the African continent from ancient times to the modern period. Focuses on political and cultural developments in African civilizations from ancient Egypt to the contemporary period. Credit will be granted for only one prefix: HIS or AAS. (General Studies—Level II, Historical; Multicultural)

### **HIS 2010-3 Contemporary World History (3 + 0)**

Prerequisites: satisfaction of ENG 1010 and Level I Communication course requirements

This course explores the major developments in the 20th century emphasizing political, social and economic experiences. The issues facing the Third World are examined closely. (General Studies—Level II, Historical)



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**HIS 2650-3**

**(WMS 2650) Women of the West (3 + 0)**

This course examines women who inhabited the American frontiers from pre-Columbian times through the 20th century. The lives and attitudes of Native American, Hispanic, African American, and native-born and European immigrant women are emphasized. Differences between images and the reality of women's lives are highlighted. Credit will be granted for only one prefix: HIS or WMS.

**HIS 2770-3 World of Islam (3 + 0)**

This course examines major developments associated with the origin, expansion, and evolution of Islam and Islamic civilization from the seventh century to the modern period.

**HIS 2820-3**

**(CHS 2120) Mexico: Independence to Revolution, 1810-1910 (3 + 0)**

Prerequisite: HIS 1910/CHS 1010

This course describes the social, political, cultural and economic development of the Mexican people during the 19th century. Also provides an analysis of how race, class, gender, regionalism and foreign intervention influenced Mexican history throughout the era. Credit will be granted for only one prefix: HIS or CHS.

**HIS 2830-3**

**(CHS 2130) Mexico: Revolution to the Present, 1910-1990s (3 + 0)**

Prerequisites: CHS 1010/HIS 1910 and CHS 2120/HIS 2820 or permission of instructor

This course traces the social, political, cultural and economic effects of the 1910 Revolution on 20th-century Mexico. Describes how the United States government and private citizens have influenced Mexico's history. Credit will be granted for only one prefix: HIS or CHS.

**HIS 2950-3**

**(AAS 2130) West African Civilizations (3 + 0)**

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Prerequisites: satisfaction of ENG 1010 and Level I Communication course requirements

This course surveys the history and cultures of West Africa from A.D. 1000 to the modern period. The course will focus on political, cultural and economic developments among West African peoples and states. Credit will be granted for only one prefix: HIS or AAS. (General Studies—Level II, Historical; Multicultural)

### **HIS 3010-3 History of Denver (3 + 0)**

Course covers Denver from its Native American prehistory to the mid-20th century. Ethnic groups, political leaders, and the power elite are treated as are the major events in the city's history.

### **HIS 3023-3**

#### **(AAS 3000) History of Egypt (3 + 0)**

Prerequisite: sophomore standing or permission of instructor

This course explores and examines major developments in the history of Egypt from the Pharaonic period to the modern era. Political, religious, economic and cultural elements are highlighted. Credit will be granted for only one prefix: HIS or AAS.

### **HIS 3030-3 Ancient Orient and Greece (3 + 0)**

Prerequisite: satisfaction of Level I General Studies course requirements

The Ancient Orient and Greece is an upper-division survey course, which is designed to familiarize the student with the histories and cultures of the Near East and Greece of antiquity, the contributions those societies made to civilization and their overall significance in the historical development of humans. (General Studies—Level II, Historical)

### **HIS 3060-3 Rome and the Caesars (3 + 0)**

Prerequisites: HIS 1010 or permission of instructor and satisfaction of all Level I General Studies course requirements

Rome and the Caesars is an upper-division survey course that concentrates on the history of Rome from its founding in the eighth century B.C. to its demise in the sixth century A.D. Roman history presents a unique study in the rise and decline of a civilization, and this course analyzes every aspect of that development. (General Studies—Level II, Historical)

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### **HIS 3090-3 Native Americans in American History (3 + 0)**

Prerequisites: satisfaction of Level I General Studies course requirements

The purpose of this course is to examine the history of the cultural contact and confrontation between North American indigenous people and Europeans and Africans from Celtic times to the present. The course seeks to integrate ethnohistoric evidence from "traditional" Eurocentric accounts to provide as balanced an account as possible. (General Studies—Level II, Historical; Multicultural)

### **HIS 3100-3 American West Seminar (3 + 0)**

In this seminar students consider various topics relating to the American frontier. Primary emphasis will be on the 19th- and 20th-century Trans-Mississippi West.

### **HIS 3110-3 Colorado History II (3 + 0)**

Course concentrates on 20th-century Colorado's political, social and economic history. The progressive movement, the Ku Klux Klan's rise to power, the depression years and post-World War II Colorado are covered in depth.

### **HIS 3120-3 Medieval History (3 + 0)**

Prerequisite: satisfaction of Level I General Studies course requirements

Course covers the history and culture of Europe from circa 325 to 1300 B.C., emphasizing such themes as the transition from ancient to medieval civilization, Latin Christianity, the Carolingian empire, the papacy and the development of feudal society. (General Studies—Level II, Historical)

### **HIS 3140-3 Renaissance and Reformation (3 + 0)**

Prerequisites: satisfaction of Level I General Studies course requirements

Studies the political, religious, cultural and economic aspects of the Renaissance, a period of decline in the 14th century and revival in the 15th century. The religious upheaval of the 16th century, with its roots in the Renaissance, and its immediate and long-range effects on Western civilization are examined in detail. (General Studies—Level II, Historical)

### **HIS 3210-3 French Revolution and Napoleon 1715–1815 (3 + 0)**

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After studying causes, students examine the French Revolution in detail. Also considered are the effects of the Revolution and Napoleon upon France and the major countries of Europe.

### **HIS 3230-3 Nineteenth Century Europe (3 + 0)**

A chronological survey of the century of progress culminating in the tragic climax of the outbreak of World War I. Such topics as the industrial revolution, the consolidation of the nation-state, rise of the masses, liberalism, socialism, nationalism and imperialism are covered.

### **HIS 3250-3 World War I (3 + 0)**

Prerequisite: junior or senior standing

This course provides an in-depth examination of the origins, course, consequences and outcomes of World War I.

### **HIS 3260-3 Twentieth Century Europe, 1914–1939 (3 + 0)**

Internal developments in the major European nations are analyzed from World War I to 1939. Primary emphasis is placed on the impact of World War I, Versailles, the Russian Revolution, the rise of fascism and international relations.

### **HIS 3270-3 Issues in European History: Variable Topics (3 + 0)**

An examination of various problems in European history. The topics will vary to accommodate student needs and interests. May be repeated for credit as the course title changes.

### **HIS 3280-3 Modern Germany since 1789 (3 + 0)**

The history and culture of Germany are studied against the background of the transformation from the underdeveloped and politically fragmented Holy Roman Empire in 1789 to the industrial giant and world power of the 20th century.

### **HIS 3290-3 Nazi Germany (3 + 0)**

Prerequisite: HIS 1020 or permission of instructor

This detailed survey examines the origins of Hitler's regime within the context of 20th century Germany and Nazi domestic and foreign policies to 1939. World War II, given thorough coverage, is viewed as the logical

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culmination of Hitler's ideology and his ability to use the German nation as a means to achieve his murderous ends.

**HIS 3310-3 England to 1714 (3 + 0)**

Prerequisites: HIS 1010 or permission of instructor and satisfaction of Level I General Studies course requirements

This course covers the institutional and cultural development of the English nation from the earliest times to the death of Queen Anne. Particular attention will be focused on the legal and constitutional developments during the latter part of this period that have made the English experience so unique. (General Studies—Level II, Historical)

**HIS 3320-3 England since 1714 (3 + 0)**

Prerequisites: HIS 1020 or permission of instructor and satisfaction of Level I General Studies course requirements

This course analyzes the social, political and economic developments that produced modern Great Britain, the British Empire, and the final retreat from power after World War I. (General Studies—Level II, Historical)

**HIS 3340-3 Ireland and the Irish (3 + 0)**

This is a survey course in Irish history and culture from the earliest period of Celtic civilization up to the contemporary period. It explores the various developments in Irish history over the past 3,000 years and attempts to identify those trends that were uniquely Irish and those that were a part of the overall evolution of European civilization.

**HIS 3350-3 Countries/Regions of the World: Variable Topics (3 + 0)**

This course examines various historical issues and problems of relationships among members of the world community. Specific countries or regions to be emphasized will vary according to student needs and interests. This course may be repeated for credit under different topics.

**HIS 3360-3****(WMS 3360) Women in European History (3 + 0)**

Prerequisites: HIS 1010, 1020, or permission of instructor

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This course provides an historical analysis of the role and contribution made by women in the development of Western Civilization from Neolithic times to the present. Credit will be granted for only one prefix: HIS or WMS.

### **HIS 3370-3 The American Presidency (3 + 0)**

Prerequisite: sophomore standing or above

This course surveys the history and structure of the American presidency as an institution and probes the lives and administrations of individual presidents. Significant political themes and topics pertaining to the White House's historical political climate are likewise explored.

### **HIS 3380-3 Nixon and the Kennedys (3 + 0)**

This course employs a life-and-times approach to the study of Richard Nixon, the members of the Kennedy family (with emphasis on John and Robert) and the historical events that shaped the lives of Nixon and the Kennedys or were influenced by their lives. The larger story of modern American history is woven around the lives of these individuals who have played a prominent part in that history. Family backgrounds, childhoods and public careers are all considered in the biographical aspects of this course.

### **HIS 3390-3 The Kennedy Assassination (3 + 0)**

This course explores the background of the John Kennedy assassination, the event itself, and the aftermath. Special attention is paid to conflicting theories regarding the assassination.

### **HIS 3400-1-3 Biography as History: Variable Topics (1-3 + 0)**

An in-depth examination of the lives of individuals who personify a major historical issue or theme. May be repeated for credit as the course title changes.

### **HIS 3410-3 American Colonial History (3 + 0)**

This course focuses on a rich variety of themes in colonial American history ranging from exploration, planting colonies, political growth, social mobility, environmental and agricultural history to 1763.

### **HIS 3430-3 American Revolution 1763-1787 (3 + 0)**

Analyzes the structure of American society on the eve of the Revolution, the evolution of British imperial policy and the causes of the Revolution. Military

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and diplomatic aspects of the era are stressed, as well as the forces that made for a more perfect union.

**HIS 3460-3 Foundations of the American Constitution (3 + 0)**

Examines constitutional and democratic thought from the Articles of Confederation to the Civil War. The Constitutional Convention, the ideas of Jeffersonians and Federalists, and the Supreme Court under Marshall and Taney will be emphasized.

**HIS 3480-3 Early National Period 1790-1840 (3 + 0)**

This course examines politics and society during the early republic. Major topics will include the development of political parties, the shift from Jeffersonian to Jacksonian democracy, the burgeoning reform movements, the status of the farmer in the trans-Appalachian West, and slavery.

**HIS 3510-3 Civil War: Background (3 + 0)**

This course is primarily concerned with the forces that produced the American Civil War. As a foundation for understanding those forces, it emphasizes the topics of slavery and the Old South.

**HIS 3520-3 Civil War: War and Peace (3 + 0)**

Covers the military and nonmilitary history of the Civil War years and examines the period of Reconstruction that followed the end of the war. It also seeks to familiarize students with Civil War and Reconstruction historiography.

**HIS 3530-3 American Baseball History (3 + 0)**

The purpose of this course is to examine American baseball as a cultural reflection and catalyst in American life since the 1840s. Drawing on primary and secondary sources, as well as guest lectures, the course will illustrate the place of the sport within American culture.

**HIS 3540-3 Shaping of Modern U.S. 1877-1920 (3 + 0)**

Traces the rise of industrialism; the organization of laborers and farmers; the growth of American imperialism; and the spirit of reform in America and resulting social, political, and constitutional adjustments.

**HIS 3550-3 American Business History (3 + 0)**

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This course is designed to familiarize students with the history of American business from the colonial period to the present. A central focus of the course will be the relationship of business to society. Among the special topics covered are the evolution of business strategies and structures, government-business relations, management-labor relations, technological innovations and relevant aspects of American economic thought.

### **HIS 3570-3**

#### **(AAS 3570) African American History I (3 + 0)**

Prerequisite: HIS 1210, HIS 1220, or permission of instructor

Moving from the background of African culture and the slave trade, this course traces the distinctive role of the people of African heritage in the U.S. to 1876. The course focuses on the themes and subjects that reveal the complexities of the black experience. Credit will be granted for only one prefix: HIS or AAS.

### **HIS 3580-3**

#### **(AAS 3580) African American History II (3 + 0)**

Prerequisite: HIS 1210, HIS 1220 or permission of instructor

Continues to study the role of the people of African heritage in the U.S. from 1876 to the present. Emphasis is placed on understanding the black experience: family and church, sex and racism, politics, economics, education, criminal justice, black nationalism and the permanent contradiction between America's ideals and its practices. Credit will be granted for only one prefix: HIS or AAS.

### **HIS 3590-3 American Immigration History (3 + 0)**

Prerequisite: satisfaction of Level I General Studies course requirements

This course concentrates on the movement of people into the United States. It considers the factors which cause them to migrate, their adjustment to their new homes, and the interaction between them and other Americans. (General Studies—Level II, Historical; Multicultural)

### **HIS 3610-3 Preservation/Public History (3 + 0)**

Traces the development of historic preservation in the U.S. and examines the role of the public historian in managing cultural resources.



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### **HIS 3620-3 History of the Legal and Medical Professions (3 + 0)**

This course will explore the historical, social, cultural and organizational characteristics of the legal and medical professions.

### **HIS 3630-3 Historic Western Places (1 + 5)**

The course, which includes site tours, covers the establishment and development of significant 19th century towns and military establishments in Colorado and adjacent states.

### **HIS 3640-3 U.S. The Twenties–The Thirties (3 + 0)**

Covers the intellectual climate of the Twenties, domestic and foreign policies from Harding through Hoover, the Great Depression, the New Deal and U.S. diplomacy on the eve of World War II. This course can be offered as two modules, one on the Twenties, and the other on the Thirties.

### **HIS 3660-3 Recent U.S. 1945–1970s (3 + 0)**

Prerequisites: satisfaction of all Level I General Studies course requirements

This course treats the United States from 1945 to the 1970s, concentrating on the Cold War, the civil rights movement, the decline of political parties and the nature of the centralized state. (General Studies—Level II, Social Sciences)

### **HIS 3670-3 U.S. Foreign Relations: Variable Topics (3 + 0)**

An examination of various issues, problems, or areas in American foreign policy from colonial origins to the recent past. The topics will vary to accommodate student needs and interests. This course may be repeated for credit under different topics.

### **HIS 3680-3 The Court in Crisis (3 + 0)**

This course will examine the major constitutional developments in the United States from World War I to the present. Special attention will be devoted to the Supreme Court's role in advancing civil rights and civil liberties.

### **HIS 3690-3 American Military History (3 + 0)**

This is a study of American military history from the wars of the colonial period through Vietnam. It considers battles, strategy and organization.

### **HIS 3700-3 Modern China (3 + 0)**

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Prerequisite: satisfaction of Level I General Studies course requirements

This course covers the history of China since 1800, with emphasis on the historical continuity and changes in its political, social, cultural and economic development. The course will also discuss chronologically the traditional order in China, its breakdown both by internal and external challenges, the Chinese people's "struggle" to adjust to the new world imposed by foreign powers, and their effort to rebuild their country through revolution. (General Studies—Level II, Historical)

### **HIS 3740-3 Modern Japan (3 + 0)**

Prerequisite: satisfaction of Level I General Studies course requirements

This course covers the history of Japan since the mid-1850s, with emphasis on the political, social and economic development. The course will also discuss the traditional order in Japan, its modification over time, the Japanese "struggle" to adjust to the new world order imposed by foreign powers, its defeat in World War II and its effort to rebuild. (General Studies—Level II, Historical)

### **HIS 3760-3 Modern Middle East (3 + 0)**

Course explores the dynamic history of this volatile region, with special emphasis on the post-World War II period.

### **HIS 3790-3 The United States and Vietnam (3 + 0)**

This course traces the 1960s conflict in Vietnam to its roots in 19th century colonialism, conflicting interests in World War II and the demise of French power in the 1950s. It details U.S. involvement and U.S. strategy from the 1950s until the defeat of South Vietnam in 1975. Attention is also paid to the U.S. home front and to the effects of the conflict.

### **HIS 3800-3 Latin America: Empires (3 + 0)**

This course traces and analyzes the political, social and economic development of the Spanish and Portuguese empires in America from the initial period of exploration and conquest through the institutionalization of the imperial systems.

### **HIS 3810-3 Latin America : Republics (3 + 0)**

Prerequisites: satisfaction of all Level I General Studies course requirements

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A selective analysis of the problems and solutions of the Latin American republics in their attempts to construct viable nation states. Emphasis will be placed on the liberalism of the 19th century and the revolutionary experiences of the 20th century. (General Studies—Level II, Historical)

### **HIS 3820-3 United States and Latin America (3 + 0)**

Prerequisites: HIS 1210 or HIS 1220 or permission of instructor

This course covers the historical development of relations between the U.S. and its hemispheric neighbors, from the original independence movements to the present.

### **HIS 3830-3**

#### **(CHS 3010) The Mexican Revolution (3 + 0)**

Prerequisite: CHS 1000 or permission of instructor

This course traces the social, political and economic forces that contributed to the Mexican Revolution (1910-1920). Furthermore, it provides a critical analysis of how leaders, women, the Mexican masses and the United States influenced revolutionary events. Credit will be granted for only one prefix: HIS or CHS.

### **HIS 3840-3 Topics in Popular Culture: Variable Topics (3 + 0)**

This course will examine major trends in popular culture. Topics include American lifestyles, beliefs and customs. This course may be repeated for credit under different topics.

### **HIS 3850-3 American Social History (3 + 0)**

This course focuses on significant events, issues, and themes in American social, cultural and intellectual history that have influenced the development of American society.

### **HIS 3860-3**

#### **(WMS 3860) Advanced U.S. Women's History (3 + 0)**

Prerequisite: HIS 1210, HIS 1220, HIS/WMS 1650, or permission of instructor

This course provides an in-depth examination of issues pertinent to women of the Americas. Themes include pre-Columbian culture, immigration, work,

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family life and women's rights. Credit will be granted for only one prefix: HIS or WMS.

### **HIS 3870-3 History of U.S. Sexual Attitudes (3 + 0)**

This course covers the wide-ranging history of American sexuality practices, beliefs and attitudes from the colonial period to the present and encourages students to place their attitudes within this historical framework.

### **HIS 3880-3 American Environmental History (3 + 0)**

This course will examine the interactions between humans and plants and animals in North America from pre-Columbian times to the present, as well as U.S. attitudes toward landscapes, cities and natural phenomena.

### **HIS 3890-1-2 Readings in History: Variable Topics (1-2 + 0)**

In this course, a student will read extensively in a selected area. Critiques of the works read will be submitted to the professor directing the reading. May be repeated for credit as the title changes.

### **HIS 3980-3 Cooperative Education: History (3 + 0)**

Prerequisite: placement in history internship with Cooperative Education Program

Provides work experience in various areas of public history. Includes student research and special projects for federal and state agencies, preservation organizations, archives and museums while serving as interns.

### **HIS 4000-1 Research Techniques: Variable Topics (1 + 0)**

Introduces students to specialized research techniques, including research in U.S. public documents, state and municipal archives and historical research methods. May be repeated for credit as title changes.

### **HIS 4010-3 Methods of Teaching Social Science: Secondary School (3 + 0)**

Prerequisite: junior or senior standing (should ideally be taken the semester before student teaching is done)

This course explores the relationship between the social sciences, examines curricular approaches and current teaching methodologies, and discusses philosophies of the social sciences in the context of the secondary school and their practical applications for teaching.

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**HIS 4110-3**

**(HON 3850) American Culture I (3 + 0)**

Prerequisites: HIS 1210, HIS 1220, or their equivalent, permission of MSCD Honors Program director, satisfaction of all Level I General Studies course requirements

This course critically examines the variety of interdisciplinary and multicultural perspectives in the study of American Culture. Credit will be granted for only one prefix: HIS or HON. (General Studies—Level II, Historical)

**HIS 4120-3**

**(HON 3860) American Culture II (3 + 0)**

Prerequisites: HIS 1210, 1220, or their equivalent, HON 3850, permission of MSCD Honors Program director, and satisfaction of all Level I General Studies course requirements

This course applies the theoretical perspectives to contemporary works representative of American life and thought. Credit will be granted for only one prefix: HIS or HON. (General Studies—Level II, Historical)

**HIS 4320-3 Russia since 1905 (3 + 0)**

Explores major developments in the domestic and foreign policies of 20th-century Russia. Emphasis is placed on revolutions, the social, political, and intellectual changes that have come to Soviet Russia.

**HIS 4650-3 World War II 1939–1948 (3 + 0)**

A detailed examination of World War II and the early years of the Cold War. Emphasis is placed on the war in Europe, the impact of Nazi rule, diplomacy among the wartime allies, the collapse of wartime cooperation, the advent of the Cold War, as well as containment.

**HIS 4820-3 Senior Seminar (3 + 0)**

Prerequisites: HIS 1010, HIS 1020, HIS 1210, HIS 1220; at least nine upper-division history hours; satisfaction of all Level I and Level II General Studies course requirements; senior standing

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This course covers historiography, research and writing techniques and philosophies of history. This is a capstone course and is required of history majors. (Senior Experience)

### **HIS 4840-3 Seminar in American Culture (3 + 0)**

This seminar will deal with various selected topics that relate to American history and culture.

### **HIS 4860-3**

### **(WMS 4860) History of Feminism and Women's Rights (3 + 0)**

Prerequisites: WMS 1001 or either HIS 1210 or HIS/WMS 1650, or permission of instructor

The purpose of this course is to examine the history of American feminism from the Age of the Revolution to the present. Through the use of primary and secondary sources, the philosophies and strategies of women's rights activists and organizations will be examined. Among the special topics to be considered are the conditions and intellectual currents in society that facilitated the growth of American feminism, the achievements of the women's rights movement, the forces that opposed women's rights, and the issues for debate within the feminist movements. Credit will be granted for only one prefix: HIS or WMS.

Of the above courses, the following may be repeated if the topics are changed: HIS 3270, HIS 3350, HIS 3400, HIS 3670, HIS 3840, HIS 3890, HIS 3980, and HIS 4000.

## **Hospitality, Meeting, Travel Administration**

### **HMT 1030-2 Principles of Travel Administration (2 + 0)**

An introductory course in travel operations. Introduces the student to the history and concepts of the travel industry. Covers operational concepts, vocabulary, career opportunities, and interrelationships between the travel profession and other hospitality professions.

### **HMT 1040-2 Principles of Meeting Administration (2 + 0)**

An introductory course in meeting operations, introducing the history and concepts of the meeting industry. Provides an understanding of the operational concepts, vocabulary, career opportunities, and interrelationships between the meeting profession and other hospitality professions.

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### **HMT 1050-2 Principles of Hotel Administration (2 + 0)**

An introductory course in hotel operations. Provides the beginner with concepts of hotel organization, history of hotel operations, profit and loss statement, management controls and marketing concepts.

### **HMT 1060-2 Principles of Restaurant Administration (2 + 0)**

The course provides students with an introduction of restaurant and food service operations. Students will examine the history of food service and also how food service is interrelated to the various aspects of the hospitality industry. Current problem solving tools used for control of operations and industry-wide trends and issues will be discussed. Students will examine the various career opportunities available in food service.

### **HMT 1600-2 Food Service Sanitation and Safety (2 + 0)**

This course covers the fundamental principles of food microbiology, important food-borne diseases, standards that are enforced by regulatory agencies and applied measures for the prevention of food-borne diseases and other microbiological problems. The Hazard Analysis Critical Control Point (HACCP) food safety system is described and then practiced in a field experience project.

### **HMT 1610-4 Kitchen Procedures and Production I (3 + 2)**

Prerequisite: HMT 1600 or permission of instructor

This comprehensive introduction to the field of professional food preparation and cooking includes the proper use of quantity food equipment and tools, menu planning, nutrition and health, measurements and recipe conversions, yield tests, food costing and controls, menu pricing, cooking principles and methods and the use of kitchen staples.

### **HMT 1620-4 Kitchen Procedures and Production II (3 + 2)**

Prerequisite: HMT 1610

A continuation of HMT 1610. Course covers application of principles from HMT 1610 in the preparation and service of eggs and dairy products, meats, poultry, game, fish and shellfish, vegetables, potatoes and starches, salads and dressings. Principles of the bakeshop, breads, pastries, international flavor principles, plate presentations, hors d'oeuvre, appetizers, and breakfast/brunch are also covered.

### **HMT 1810-4 Basic Ticketing and Reservations Procedures (4 + 0)**

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A course designed to give the student a basic working knowledge of domestic ticketing, reservation systems, and ticket processing through an agency until commissions are received. Students learn manual processes. Computer reservation and ticketing formats are learned from standard availability formats through standard ticketing formats.

### **HMT 1820-2 Travel References and Case Studies (2 + 0)**

Prerequisite: HMT 1810 must be taken at the same time or must have been taken prior to taking this course

This course focuses upon international travel. Students learn international ticketing, itinerary development and ticketing processing. Students learn both manual and computer techniques.

### **HMT 1830-4 Cruise Development, Marketing, and Sales (4 + 0)**

A course focusing on the cruise product, cruise development, marketing cruises and cruise point-of-sale techniques. Students learn cruise conferences, markets, cruise sales tools, cruise reservations and ticketing processes, and group cruise sales techniques. Students learn cruise sales through list selection, individual and group telemarketing, and individual and group sales activities. A guided individual research project will also be required.

### **HMT 1850-3 Multicultural/Multinational Cultural Adjustment/Readjustment (3 + 0)**

Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement test

This course will introduce students to both multicultural and multinational employment opportunities. Concentration will be on job opportunities in other countries and employment opportunities for jobs based in the U.S. with travel to other countries. The unique opportunities for those of color will be emphasized. Specific learning modules will be included for those who are black, of Hispanic origin, and Native American. (General Studies—Level II, Social Sciences; Multicultural)

### **HMT 2000-3 Internship (0 + 9)**

Prerequisite: formal written approval of the HMTA program internship supervisor

A beginning, on-the-job, learning experience in the HMTA student's area of emphasis. A cooperating agency or industry develops a practical as well as



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academic program of learning and work that, when approved by the HMTA internship supervisor or the department chair, becomes the student's course outline. Students are expected to meet employee standards of the cooperating agency as well as the academic standards of the HMTA program.

### **HMT 2500-2 Applied Hotel/Restaurant Operations (2 + 0)**

Prerequisite: the student must be anticipating or be currently employed in the industry, or be a student in the HMTA program, or have the instructor's permission.

The student learns how classroom theory is actually applied in hotels and restaurants. Guest-lecturers from the hotel and restaurant industries take students through operations. Classes meet in hotels and restaurants.

### **HMT 2560-3 Hotel Financial Accounting (2 + 2)**

Prerequisites: ACC 2010

A continuation of basic accounting techniques learned in ACC 2010; concentrating on specific hotel industry accounting procedures for front office, sales and payroll. Balance sheets and income statements will also be covered.

### **HMT 2760-3 Meeting Administration I (2 + 2)**

Prerequisite: permission of the instructor and basic computer literacy

The first course in meeting planning for majors or for those who believe they may be called on to plan a meeting for their employer or organization. Considers the basics of budgeting, site selection, exhibits, transportation, food and beverage, functions, publicity and audiovisuals for meetings.

### **HMT 2840-4 Tour Operations (4 + 0)**

An introduction to tour operations, this course provides both knowledge and skill in tour development. Saturday and weekend tours are planned by students through group work. Each student develops his/her own tour as well as planning tour organization, tour marketing, tour management and tour evaluation through a series of up to 17 tour planning group projects.

### **HMT 2860-2 Tourism (2 + 0)**

This course introduces students to tourism theories including the tourism multiplier and the tourism account in the balance of payment. State and

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national tourist offices and their approaches toward developing tourism are also discussed.

### **HMT 3510-3 Hotel Front Office Administration and Operations (3 + 0)**

Prerequisite: HMT 1050 or permission of instructor

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations and to human resource management. Front office procedures and management are placed within the context of the overall operation of a hotel.

### **HMT 3520-3 Hotel Housekeeping Administration and Operations (3 + 0)**

Prerequisite: HMT 3510

This course presents a systematic approach to managing housekeeping operations in the hospitality industry. Students will study the management of direct housekeeping day-to-day operations from the big picture perspective down to technical details. Interrelation of hotel departments and maximum guest service and profitability will be examined.

### **HMT 3570-3 Hospitality Marketing (3 + 0)**

Prerequisite: junior standing or permission of instructor

This course provides applications of principles of marketing and advertising to the specific needs of the hospitality industry. Students will submit a major paper based on field work in their area of concentration analyzing a particular marketing problem.

### **HMT 3580-3 Hospitality Tourism Law (3 + 0)**

Prerequisites: HMT 1030, HMT 1040, HMT 1050 and HMT 1060 or permission of instructor

This course provides an overview of the legal fundamentals that apply to operations and management in the hospitality and tourism industries with an emphasis on preventive management practices. Legal procedures, civil rights, contract law, negligence, relationships with guests and specialized liabilities related to food and alcohol service, travel agents, airlines and

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rental cars are covered as well as contemporary legal issues in hospitality management related to employment practices, internal and market regulation and franchising.

**HMT 3600-3 Food and Beverage Cost Controls (3 + 0)**

Prerequisite: HMT 1050 or permission of instructor

This course gives students the knowledge to function as a manager of food and beverage operations in the hospitality industry. Procurement, preparation and service to final accountability of sales and costs are covered.

**HMT 3610-3 Enology: The Study of Wine (3 + 0)**

Prerequisite: a minimum age of 21 years

This course is designed for the student who wishes to learn the basics of wine knowledge for personal gratification, as well as to serve the student who expects to have a professional interest in the selection or service of wine. Viticulture, vinification, service, and critical appraisal of wines of the major wine regions of the world will be covered.

**HMT 3650-3 Hospitality Property Management (3 + 0)**

Prerequisite: HMT 3510 or HMT 3660 or permission of instructor

An examination of the fundamentals of blueprint reading, building, construction safety and utility requirements and mechanical systems as they relate to the hotel/restaurant business.

**HMT 3660-3 The Restaurant from Concept to Operation (3 + 0)**

Prerequisite: HMT 1060 or permission of instructor

This course provides the student with the major elements of a successful concept package and business plan for a proposed or existing restaurant or food service operation. Criteria for site selection, market analysis, location factors and menu consistent with the concept are covered. Forecasting, budgeting and controlling sales and costs, financing considerations and legal and tax matters are also included in a semester project for a concept of the student's own choosing.

**HMT 3670-3 Food Service Purchasing (3 + 0)**

Prerequisite: HMT 1060 or permission of instructor

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This course provides an overview of purchasing in the food service industry and essentials of an effective selection and procurement program. Purchase specifications, vendor selection, inventory systems, ordering, receiving and storage procedures and criteria for selection of major food and non-food item categories are covered as well as the purchase of services and durable goods.

### **HMT 3750-3 Hospitality Promotion Materials: Analysis and Design (3 + 0)**

Focus is on the creative conceptualization and technical production of complex packages of printed materials for meetings, tours, hotels, and restaurants as aids in promotion and marketing. Students learn process theory and applications.

### **HMT 3760-3 Meeting Administration II (2 + 2)**

Prerequisites: HMT 2760 and computer literacy

A professionally oriented course for those preparing for a career as an exposition manager or association meeting planner. Stresses elements of exposition development and management and adult learning theory as applied in association and meeting agendas. A total exposition plan is required.

### **HMT 3830-2 In-flight Services (2 + 0)**

In-flight services explores the range of in-flight services careers. Students learn the job duties of a flight attendant and of in-flight supervisory/management personnel. Safety, security, customer handling and normal procedures are discussed in detail. The course concludes with approaches toward getting a job in in-flight services.

### **HMT 3840-2 Airport Services (2 + 0)**

Airport services explores the jobs held by airline employees in public contact positions from arrival and baggage check-in, through aircraft boarding and including ramp service positions. Job classifications, duties, and requirements are reviewed.

### **HMT 3850-4 Financial Management in the Travel Industry (4 + 0)**

Prerequisites: HMT 1030 and MTH 1210 or permission of instructor

Principles of travel industry budgeting are taught in accordance with the Airlines Reporting Corporation and Cruise Lines International Association

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requirements. Financial ratios and financial management case problems are studied and travel payment systems are reviewed.

### **HMT 3860-2 Incentive Travel (2 + 0)**

Prerequisites: HMT 1810 and HMT 1820 or permission of instructor

As an introduction to incentive travel, the student will obtain an overview of the incentive travel industry. Business incentive programs will be studied and each student will prepare a mock incentive travel program for a Colorado company as a group project. Students may expect to spend additional hours undertaking out-of-class projects.

### **HMT 3890-2 Cases in Corporate Travel Management (2 + 0)**

Cases relating to major corporate travel management problems are explored in-depth with corporate travel industry situations developed as cases.

### **HMT 4000-3 Internship II (0 + 9)**

Prerequisite: HMT 2000 or approved equivalent learning experience

An advanced, on-the-job, administrative learning experience in the emphasis areas of the HMTA major. An approved plan from a cooperating agency requiring both work and academic learning serves as the course outline. Students meet all requirements as for HMT 2000 but on a more rigorous, advanced and administrative level.

### **HMT 4010-1 Internship III (0 + 3)**

Prerequisites: HMT 4000 and/or approved equivalent learning experience

A supplementary apprenticeship providing an in-depth learning experience in a discrete portion of the student's HMTA area of emphasis, either not covered or only surveyed in previous internships or job experience.

### **HMT 4040-2 Senior Hospitality Research Experience I (2 + 0)**

Prerequisite: senior standing, 12 hours in major emphasis, MTH 1210, senior-level writing ability, and satisfaction of all Level I and Level II General Studies course requirements

This course is designed to provide the approaches and techniques necessary for senior students to analyze needs, create and develop a major research project, and effectively interpret results and their application to their major emphasis area. (Senior Experience)

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### **HMT 4400-2 Senior Hospitality Research Experience II (2 + 0)**

Prerequisites: HMT 4040, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course is a continuation of HMT 4040 and involves instructor-guided completion of the research project proposal developed in HMT 4040. Project completion benchmarks are established. Class oral presentations and discussions of work accomplished are included. (Senior Experience)

### **HMT 4500-3 Hospitality Sales (2 + 2)**

Prerequisite: HMT 3570 or MKT 3000

Both inside and outside retail sales in the hospitality industry are addressed in a typical hospitality sales development process. Moving from individual to group sales, the course then reviews specialized hospitality industry sales jobs including travel agency outside sales, convention sales, association meeting sales and various technical hotel sales positions.

### **HMT 4590-2 Seminar in Hotel Administration (2 + 0)**

Prerequisites: junior or senior standing plus 20 hours in hotel courses or permission of instructor

Course identifies and analyzes current and projected issues and trends in the lodging industry. Emphasis on strategic planning and problem solutions.

### **HMT 4640-3 Hospitality Customer Service (3 + 0)**

Prerequisite: junior or senior standing

This course will speak to the needs of the increasing global nature of the hospitality industry to include aspects of interpersonal, intercultural and nonverbal components of service to the customer. Students will examine the cycle of service, critical points of service, various customer service systems, methods used to evaluate customer service systems and effective training and development for delivery of successful customer service.

### **HMT 4650-3 Hospitality Employee Resource Development (3 + 0)**

Prerequisite: HMT 3670, or HMT 3520, or permission of instructor

Course addresses specific challenges to personnel administration for the hospitality industry. Subjects include recruitment, training, motivation,

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morale, personnel administration tools, personal organization and supervisory skills for organizational productivity.

**HMT 4660-3 Training and Development in Hospitality (3 + 0)**

Prerequisites: junior or senior standing, HMT 4650, a minimum of 20 hours of HMT courses and either HMT 3520 or HMT 3670

A continuation of HMT 4650, which is designed to build upon the knowledge and concepts learned in relation to employee resource development. Course includes group dynamics and problem solving combined with the writing and training of excellence standards.

**HMT 4730-3 Principles of Negotiation (2 + 2)**

Prerequisite: permission of instructor

Basic principles of individual and team negotiation as applied to industry are covered. Emphasis is placed on developing aspiration levels and fall-back positions, strategies and tactics of accomplishing the levels and thorough preparation for the negotiation. Students participate in two negotiating situations.

**HMT 4790-2 Seminar in Meeting: Variable Topics (2 + 0)**

Prerequisite: HMT 3790 or permission of instructor

The course considers special problems in special events management such as leadership and team building principles. Emphasis is placed on problem-solution approaches and prediction. Major paper required. This course may be repeated for credit under different topics.

**HMT 4810-4 Tour Management (3 + 2)**

Prerequisites: junior or senior standing, HMT 2840, or permission of instructor

The concepts of professional and ethical tour development are taught from a destination development and from a group organizational interest point of view. Tour administration is taught from accounting, marketing, organization, and resource development points of view. Appropriate follow-up is stressed. Students plan their own tours and select one weekend tour, which all students take.

**HMT 4830-2 Corporate Travel Management (2 + 0)**

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Prerequisites: HMT 1810, HMT 1820, HMT 1830 or permission of instructor

Corporate Travel Management provides an overview of the job held by the corporate executive in charge of travel. It describes corporate travel department organization, job duties and job requirements, and it provides an education in the development of a corporate travel policy, request for proposals and vendor relations.

### **HMT 4840-4 Travel Industry Management (4 + 0)**

Prerequisites: HMT 1810, HMT 1820, HMT 1830 or permission of instructor

A simulation travel agency start-up exercise, including Airline Reporting Corporation (ARC) appointment filing, is followed by learning modules relating to starting or buying and managing retail travel agencies. Travel law and risk management are covered in detail. Tour companies, all-cruise agency, and corporate-travel department management approaches are studied as well. The course ends with a complete review of travel agency and corporate travel automation management.

### **HMT 4890-2 Seminar in Foreign Independent Tours: Variable Topics (2 + 0)**

Prerequisites: HMT 1810

A course designed to study the development and implementation of foreign independent tour travel strategies. This course may be repeated for credit under different topics.

## **Honors**

### **HON 2750-3 The Legacy of Arts and Letters I (3 + 0)**

Prerequisites: ENG 1010, the Level I Communication course requirement, permission of the Honors Program director

Studies those works that have had a literary, philosophical and artistic impact on the image of the self, with strong emphasis on works prior to the 19th century. (General Studies—Level II, Arts and Letters)

### **HON 2760-3 The Legacy of Arts and Letters II (3 + 0)**

Prerequisites: HON 2750, ENG 1010, the Level I Communication course requirement, and permission of the Honors Program director



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A continuation of HON 2750, this course emphasizes modern works that have had a literary, philosophical and artistic impact on the image of the self. (General Studies—Level II, Arts and Letters)

### **HON 2800-3 History of Science (3 + 0)**

Prerequisites: MTH 1110; either ENG 1010 or satisfaction of the Level I Communication course requirements; admission to the Honors Program or permission of the Honors Program director

A comprehensive historical account of the rise of science and scientific thought from the Babylonians to the present. Emphasizes great scientists and how they helped change the world. Topics include astronomy, chemistry, physics, math and biology. (General Studies—Level II, Natural Science)

### **HON 2810-3 Development of Experimental Science (3 + 0)**

Prerequisites: MTH 1110 and either ENG 1010 or satisfaction of the Level I Communication course requirements; admission to Honors Program or permission of the Honors Program director

An in-depth study of great scientific achievement with an emphasis on historical experiments and their significance to the evolution of science. Experiments are performed by the students and collected data from these experiments are used to rediscover scientific laws. (General Studies—Level II, Natural Science)

### **HON 2950-3 The Art of Critical Thinking (3 + 0)**

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests, permission of the Honors Program director

This introductory course in critical thinking emphasizes a method of rational investigation called the method of inquiry. Since inquiry includes arguments both inductive and deductive, attention is focused on constructing arguments and evaluating them. Effective communication will be practices. (General Studies—Level I, Communications)

### **HON 3800-3**

### **(PSC 309K) Revolutions and Social Change I (3 + 0)**

Prerequisites: one of the following: HIS 1020, SOC 1010, ECO 2010, PSC 1020, or PSY 2410; satisfaction of all Level I General Studies course requirements; permission of the Honors Program director

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Examines the phenomenon of revolution. While the multidisciplinary orientation of the course focuses on revolutionary upheavals in the Western and Third World societies, the analytical paradigms explored include sociological, economic, political and historical dimensions. Credit will be granted for only one prefix: HON or PSC. (General Studies—Level II, Social Sciences)

### **HON 3810-3**

#### **(PSC 309D) Revolutions and Social Change II (3 + 0)**

Prerequisites: HON 3800 and one of the following courses: HIS 1020, SOC 1010, ECO 2010, PSC 1020, or PSY 2410; satisfaction of all Level I General Studies course requirements; permission of the Honors Program director

A continuation of HON 3800. Explores the socioeconomic and political consequences of major revolutions studied in HON 3800 and attempts to explain their impact on contemporary world affairs. Credit will be granted for only one prefix: HON or PSC. (General Studies—Level II, Social Sciences)

### **HON 3850-3**

#### **(HIS 4110) American Culture I (3 + 0)**

Prerequisites: HIS 1210, HIS 1220 or their equivalent; permission of the Honors Program director; satisfaction of all Level I General Studies course requirements

Designed to acquaint the student with a variety of interdisciplinary perspectives on American culture. Credit will be granted for only one prefix: HON or HIS. (General Studies—Level II, Historical)

### **HON 3860-3**

#### **(HIS 4120) American Culture II (3 + 0)**

Prerequisites: HIS 1210, HIS 1220 or their equivalent; HON 3850; permission of the Honors Program director; and satisfaction of all Level I General Studies course requirements

Applies the theoretical perspectives from American Culture I to contemporary works best representing American life. Credit will be granted for only one prefix: HON or HIS. (General Studies—Level II, Historical)

### **HON 4920-3 Senior Honors Seminar (3 + 0)**

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Prerequisites: senior standing, permission of the Honors Program director

An intense, interdisciplinary, thematic seminar. Course content varies according to the description of the departments that offer the seminar. HON 4920 is an option to HON 4950.

### **HON 4950-3 Senior Honors Thesis (3 + 0)**

Prerequisites: senior standing, permission of the Honors Council

Constitutes a Senior Experience, presented as an independent study, in which the student writes an Honors thesis supervised by a faculty member representing the discipline of the topic. HON 4950 is an option to HON 4920.

## **Human Performance, Sport and Leisure Studies**

### **HPL 1000-2 Human Performance and Leisure Activities (1 + 2)**

A wide variety of two-credit activity courses designed for the interests of the general student body. These courses do not serve the needs of Human Performance, Sport and Leisure Studies majors. May be repeated for credit as course title changes.

### **HPL 1010-2 Swim Level I (1 + 2)**

This course is designed for the nonswimmer and novice swimmer. Instruction and practice in basic water skills to make the student water-safe and "at home" in the aquatic environment.

### **HPL 1020-2 Swim Level II (1 + 2)**

Prerequisite: student must be able to jump into deep water, level off and swim 25 consecutive yards of the front crawl

This course will develop each student's skill level in the crawl, breaststroke, elementary backstroke, sidestroke, backcrawl and butterfly. Breathing techniques will be mastered in each stroke. The student's ability to float and tread water will also be a topic of instruction. An understanding and respect for the water and its surroundings will be emphasized in the "safety precautions" portion of the course.

### **HPL 1030-2 Swim Conditioning (1 + 2)**

Prerequisite: knowledge and skill in the basic swimming strokes

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This course is designed to improve the student's cardiovascular fitness through lap swimming.

**HPL 1040-2 Water Exercise (1 + 2)**

A water exercise conditioning program designed to improve and maintain fitness by improving aerobic capacity; increasing flexibility and range of movement; toning major muscles and controlling weight. Swimming ability is not required for participation.

**HPL 1060-2 Lifeguard Training (1 + 2)**

Prerequisites: student must have strong intermediate swimming skills and must have, or acquire, current American Red Cross Standard First Aid and Adult CPR Certificate (or equivalents).

This course provides the minimum skill training for a person to qualify as a nonsurf lifeguard.

**HPL 1080-2 Scuba Pool and Lecture (1 + 2)**

Prerequisites: student must be able to swim a minimum of 200 yards and tread/float for 10 minutes

This course covers basic instruction and skills in both snorkeling and scuba diving. Successful completion of this course will qualify the student for open-water certification dives.

**HPL 1090-2 Scuba Open Water Certification (1 + 2 )**

Prerequisite: student must have completed HPL 1080 within last six months

This course covers both basic and advanced instruction and skills for snorkeling and scuba diving. Successful completion of this course will qualify the student for Open Water Diver Certification.

**HPL 1130-2 Ballet Level I (1 + 2)**

This course is designed for adults with minimal or no experience. Basic steps, positions, and movements required in classical ballet will be taught, stressing correct placement based on anatomy and physical laws of motion.

**HPL 1140-2 Ballet Level II (1 + 2)**

Prerequisite: HPL 1130

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This course is designed for adults with some dance experience. Center work is stressed with more intricate combination pattern. Performance quality within the style is emphasized.

**HPL 1150-2 Ballroom Dance (1 + 2)**

This course provides instruction and practice in ballroom dance with a focus on traditional dances. Dance mixers and ice breakers will also be included in this class.

**HPL 1160-2 Jazz Level I (1 + 2)**

This course is designed to teach fundamental techniques of jazz dance for physical fitness and health, to build endurance, figure control, and strength; to aid the student with movement and introduce them to an exciting dance experience.

**HPL 1170-2 Jazz Level II (1 + 2)**

Prerequisite: HPL 1160 or permission of instructor

This course is designed for the student who has a basic jazz background. Isolation warm-ups and center work will be challenged and movement combinations lengthened. Performance quality will be stressed.

**HPL 1180-2 Modern Dance I (1 + 2)**

This course is designed for the student with minimal or no dance experience. A basic movement foundation stressing placement, strength, stretch and coordination will be included to increase physical awareness.

**HPL 1190-2 Modern Dance II (1 + 2)**

Prerequisites: HPL 1140, HPL 1160, HPL 1180, or equivalent, or permission of instructor

This course is designed for the student with a basic dance background. Placement, centering, strength and coordination will be stressed. Performance quality will be developed.

**HPL 1200-2 Modern Dance and Jazz Dance Level II (1 + 2)**

Prerequisites: HPL 1160, HPL 1180 or permission of instructor

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This course is designed to bring the student to an intermediate level in jazz and modern dance techniques. This class should not be taken without prior dance experience.

**HPL 1210-2 Improvisation and Choreography (1 + 2)**

This course will explore movement through creative problem solving and is organized into sequences to express a variety of themes.

**HPL 1220-2 Repertory Choreography (1 + 2)**

Prerequisites: minimum of one semester of HPL 1130 and HPL 1180 or equivalent experience or permission of instructor

This course is designed to give the student the opportunity to experience dance at a professional level, participating in regular rehearsals and various other aspects of producing a dance performance.

**HPL 1230-2 Square and Folk Dance (1 + 2)**

Square and folk dance activities provide an opportunity to learn meaningful movement activities, as well as develop lifetime psychomotor skills that can be used to obtain recreational and fitness objectives.

**HPL 1240-2 Tap Dance I (1 + 2)**

This dance course is designed to provide an introduction to tap dance activities, as well as the physical, social and emotional benefits derived from regular participation in such an activity.

**HPL 1250-2 Tap Dance II (1 + 2)**

Prerequisite: HPL 1240 or permission of instructor

This course is designed to provide advanced techniques and skills in tap dancing. It is designed primarily for the student who has had some previous experience in basic tap dance and wishes to acquire additional skills and proficiency in the activity.

**HPL 1260-2 Country Western Dance (1 + 2)**

Country Western Dance offers the opportunity to gain an understanding of various contemporary dances, as well as develop the confidence and motor skills necessary to enhance psychomotor dance performance.

**HPL 1320-2 Badminton (1 + 2)**

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This is a course intended for the beginner to intermediate player. The course covers individual skills, rules and strategies.

**HPL 1330-2 Golf I (1 + 2)**

This is a course designed for the beginning golfer. The course covers individual skills and rules. Range practice is conducted on the outdoor fields.

**HPL 1340-2 Golf II (1 + 2)**

Prerequisite: HPL 1330 or adequate playing ability

This course is designed for the student with prior experience in golf. The course will include review of fundamentals and advanced skills. Range practice is conducted on the outdoor fields.

**HPL 1350-2 Tennis Level I (1 + 2)**

This course is designed for beginning players who are below 2.5 USTA rating. Skills, strategy and rules at the introductory level are presented.

**HPL 1360-2 Tennis Level II (1 + 2)**

Prerequisite: HPL 1350 or permission of instructor

This is a course for the player who is above 2.5 USTA rating and/or has had a level I course. Intermediate skills and strategies are presented.

**HPL 1370-2 Tennis Level III (1 + 2)**

Prerequisite: HPL 1360 or permission of instructor

This is a course for the advanced player above 3.5 USTA rating. In-depth strategy and skill development are presented.

**HPL 1380-2 Racquetball Level I (1 + 2)**

This course is designed to introduce the student to racquetball as a recreational sport and develop the skills, knowledge and sportsmanship appropriate to participate in this activity.

**HPL 1390-2 Racquetball Level II (1 + 2)**

Prerequisite: HPL 1380 or permission of instructor

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This course is designed to improve the skills and enhance the strategies of the beginning level player. Time is devoted to the perfecting of shots and shot selection along with court strategy.

**HPL 1400-2 Fencing (1 + 2)**

This course is designed to teach the basic fundamentals of beginning fencing.

**HPL 1410-2 Ski, Cross-Country or Snowboard (1 + 2)**

This course is taught at a nearby ski area. Lessons are presented by the area's instructional staff in alpine skiing, cross-country skiing, or snowboarding. Instruction for beginners to advanced students is given.

**HPL 1420-2 Gymnastics (1 + 2)**

This is a basic course in gymnastics offered to those who desire to learn fundamental skills in either men's or women's Olympic events.

**HPL 1450-2 Backpacking and Camping (1 + 2)**

This is a course that combines lectures and a weekend backpacking trip where the student will learn where to go, how to dress, the type of equipment needed, how to feed him/herself and others, as well as learning wilderness ethics.

**HPL 1540-2 Volleyball I (1 + 2)**

This course is designed for the beginning player in volleyball. The course covers skills, team play, and rules. Intermediate-level players may be included.

**HPL 1550-2 Volleyball II (1 + 2)**

Prerequisite: HPL 1540 or adequate playing experience

This course is designed for students with prior volleyball experience, either from HPL 1540 or outside competitive participation.

**HPL 1570-2 Soccer (1 + 2)**

This course is designed to introduce the beginner to the fundamentals of the game of soccer: kicking, control, passing, dribbling, throw-ins, heading, charging, tackling and goalkeeping, as well as basic strategy and knowledge of the rules and regulations of the game.



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### **HPL 1580-2 Team Handball (1 + 2)**

Individual skills of team handball will be taught and practiced. Offensive and defensive team strategies will be covered in this course.

### **HPL 1660-2 Tae Kwon Do Level I (1 + 2)**

This course is designed to introduce the beginning student to the Korean martial art of tae kwon do and how it may relate to personal health, physical conditioning and self defense.

### **HPL 1670-2 Tae Kwon Do Level II (1 + 2)**

This course will give the intermediate and advanced martial arts student the opportunity to develop and perform their art for their own enjoyment and for the public.

### **HPL 1700-2 Personal Defense (1 + 2)**

This course will teach self-defense skills designed for contemporary urban needs. Appropriate for women and men.

### **HPL 1750-2 Weight Training Level I (1 + 2)**

This is a course designed to introduce the student, both male and female, to the proper conditioning programs for personal physical development.

### **HPL 1760-2 Weight Training Level II (1 + 2)**

Prerequisite: HPL 1750 or permission of instructor

This is an advanced course for students with some previous skills and knowledge of weight training. It is designed to explore more techniques of lifting, as well as a deeper understanding of muscular hypertrophy.

### **HPL 1780-2 Step Aerobics (1 + 2)**

This course is designed for the student with no prior experience in step aerobics. Basic stepping techniques and footwork, muscular endurance, muscular flexibility and muscular strength will be emphasized. Nutrition, injury prevention and basics of aerobic conditioning will be covered in lectures.

### **HPL 1790-2 Aerobics (1 + 2)**

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This course is designed as an introduction to a lifetime exercise program that can help the student develop cardiovascular endurance, muscular strength and endurance and flexibility. In addition to weekly activity sessions, students will receive basic information regarding healthy lifestyles. Students will be evaluated with both written and physical testing.

### **HPL 1810-2 Hip and Thigh Conditioning (1 + 2)**

This course is designed to introduce the students to an exercise program that will develop muscular endurance and muscular strength, as well as flexibility. The course content will also include lectures on nutrition, basic anatomy, physiology, injury prevention and treatment.

### **HPL 1820-2 Stretch and Strength (1 + 2)**

This course contains instruction on building strength and stretch, forming long, slender muscles. Proper stretching techniques and positions, along with methods of developing strength are covered. Sports injury prevention is emphasized in this course.

### **HPL 1830-2 Walk, Jog, Run (1 + 2)**

This course is designed to introduce the student to the benefits of walking/jogging as a method of aerobic conditioning and how to use these exercises safely while promoting cardiovascular health.

### **HPL 1840-2 Hatha Yoga I (1 + 2)**

This course is designed to introduce the beginning student to the basic concepts and methodologies of Yoga according to the Sutras of Pantanjali and the guidelines of Hatha Yoga Pradipika.

### **HPL 1850-2 Hatha Yoga II (1 + 2)**

Prerequisite: HPL 1840 or permission of instructor

This is a course for students who are already familiar with the content of Yoga I. Yoga II is an advanced course that uses pranayamas, meditation, and mudras to achieve the health and wellness benefits of Ayurvedic Medicine.

### **HPL 1870-2 Stress Management (1 + 2)**

This course is designed to provide the student with an understanding of the elements of stress-induced conditions, as well as provide a means by which students will become capable of effectively relieving stressful conditions.

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### **HPL 1880-2 Tai Chi Level I (1 + 2)**

This course is designed to introduce the beginning student to the 25 basic movement forms and concepts of Tai Chi, an ancient form of Chinese physical exercise and mental concentration. Tai Chi is a gentle form of exercise

that provides practical application to movements in daily life with an emphasis on meditation, strength, flexibility and aerobic training.

### **HPL 1890-2 Tai Chi Level II (1 + 2)**

Prerequisite: HPL 1880 or permission of instructor

This course is designed for students already familiar with the content of Tai Chi Level I. Tai Chi Level II completes the 108 movement forms and concepts begun in Tai Chi Level I and covers advanced movements through expanded amplitude, direction and complexity.

### **HPS 1600-2 Introduction to Human Performance and Sport (2 + 0)**

This course is intended for HPSL majors and minors. It is designed to orient the prospective professional/teacher to the varied fields of human performance and sport. Course activities include lecture, discussion and field experience.

### **HPS 1640-2 Physical Fitness Techniques and Programs (1+ 2)**

This course is designed to provide the student basic skills, practice and theory in physical fitness. Major components of muscle strength, muscle endurance, cardiovascular pulmonary endurance, flexibility and body composition are discussed in detail. Exercise prescription skills, administration skills and leadership skills are enhanced through active participation in conditioning activities.

### **HPS 2020-3 Community Health (3 + 0)**

A course designed to provide an in-depth study into health matters involving virtually all citizens for teachers of health education. Emphasis is in promoting community health, preventing disorders and disabilities, environmental health and health services.

### **HPS 2060-3 Emergency Rescue/First Responder & CPR (3 + 0)**

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This course is designed for the professional and layperson to prepare them in emergency response and cardiopulmonary resuscitation for infants, children and adults.

**HPS 2070-3 Sport Venue Operations (3 + 0)**

This course is designed for the HPSL professional who wants to work in sport venue operations areas such as ticket operations, facility maintenance, security, traffic flow, financing, staffing and day of game procedures.

**HPS 2100-2 Officiating (1 + 2)**

Prerequisite: HSL course in appropriate sport

This course is designed for students who wish to acquire or perfect officiating skills. Field experience assignments will be a required part of the classes. May be repeated for credit as the course title changes.

**HPS 2130-3 Activities and Health for the Elementary Child (3 + 0)**

The course provides prospective early childhood and elementary teachers with a basic background in elementary school physical education and health education programs, including the role of health science in the schools, the contributions of physical education to the school health program, safety education, fundamental motor skills and elements and activities included in a rhythms program. The course is designed for nonphysical education majors and minors and cannot be taken in lieu of HPS 2500, HPS 2520 and HPS 3000.

**HPS 2160-3 Water Safety Instructor Certification (2 + 2)**

Prerequisite: American Red Cross Advanced Lifesaving Certification or Lifeguard Training Certification

This course studies the methods of teaching water safety, skill analysis and correction. Course leads to Red Cross Water Safety Instructor Certification. Field experience assignments will be a required part of the class.

**HPS 2440-3 Dance Production (3 + 0)**

Prerequisites: HSL 1501, HSL 1310, HSL 1330, or permission of instructor

This course is designed to take the dance student through the steps necessary for creating a dance performance. Stage lighting, costumes and makeup, props, management and promotion are part of this course.

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### **HPS 2720-2 Fundamentals of Coaching (2 + 0)**

Prerequisites: satisfactory completion of Level I General Studies course requirements

This is an entry-level course designed to meet requirements for a three-year letter of authorization for coaching in the state of Colorado. It will provide an introduction to the various technical aspects of coaching. (General Studies—Level II, Social Sciences)

### **HPS 2780-3 Care and Prevention of Athletic Injuries (2 + 2)**

Prerequisites: HPS 2060 or current advanced first aid and CPR certification

This course is designed to provide a study of recognition, cause, prevention, treatment and various physical therapeutic procedures for sports injuries.

### **HPS 3000-3 Health Programs in Human Performance and Sport (3 + 0)**

Prerequisite: HES 1050

The emphasis of this course will be an examination of the health problems among adolescents that are most likely to be encountered by secondary school teachers or athletic trainers. Determinants of health behavior and models of prevention of negative health practices will be covered.

### **HPS 3080-3 Sport Industry (3 + 0)**

Prerequisite: upper division standing

This course is designed for the HPSL professional who desires a career in the professional sport setting, commercial sports industry including sales, promotions, marketing and sport arena facility operations.

### **HPS 3300-3 Anatomical Kinesiology (3 + 0)**

Prerequisite: BIO 2310 or acceptable human anatomy course, and satisfactory completion of Level I General Studies course requirements

A study of the musculature of the human body. Analysis of joint movement and muscular involvement in various physical activities will be emphasized. Applications of movement analysis to teaching effectiveness and rehabilitative programs will be discussed. (General Studies—Level II, Natural Science)

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**HPS 3320-3 Biomechanics (2 + 2)**

Prerequisite: MTH 1080

This course deals with the application of the basic principles of physics to the analysis of human movement activities. Cinematographic analysis and prediction of performance are essential aspects of this class.

**HPS 3340-3 Physiology of Exercise (2 + 2)**

Prerequisite: BIO 2320, or acceptable human physiology course, HPS 1640, and satisfactory completion of Level I General Studies course requirements

This course introduces the student to the physiological response of humans to exercise as well as the application of these responses to sports medicine, rehabilitation and general fitness. The laboratory provides experiences that demonstrate the underlying theoretical constructs that govern physiological responses to exercise. (General Studies—Level II, Natural Science)

**HPS 3400-3 Methods of Teaching Secondary Physical Education (3 + 0)**

Prerequisite: junior standing or permission of instructor

This course is intended for HPSL majors and minors. It features instructional materials, styles, procedures and experiences in preparation for teaching physical education in secondary schools.

**HPS 3410-2 Laboratory Experience in Secondary Physical Education (0 + 4)**

Prerequisite: junior standing

Corequisite: must be taken concurrently with HPS 3400

This course is a companion course for HPS 3400 (Methods of Teaching Secondary Physical Education). It is designed for prospective physical education teachers to gain practical experience in a secondary physical education program.

**HPS 3460-3 Measurement and Evaluation in Human Performance and Sport (3 + 0)**

Prerequisite: junior standing

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This course is required for all majors in the HPSL teacher track programs. It is designed to help students learn how to measure and evaluate performance in physical education classes in a school setting. Particular attention is given to using computer software for analyzing measurement data.

**HPS 3500-3 Methods of Teaching Elementary Physical Education (3 + 0)**

Prerequisite: junior standing

This course is intended for HPSL majors and minors. It covers instructional materials, styles, procedures and experiences in preparation for teaching physical education in elementary schools.

**HPS 3510-2 Laboratory Experience in Elementary Physical Education (0 + 4)**

Perquisites: HSL 1040, HSL 1050 or permission of instructor; junior standing

Corequisite: must be taken concurrently with HPS 3500

This course is a companion course for HPS 3500 (Methods of Teaching Elementary Physical Education). It is designed for prospective physical education teachers to gain practical experience in an elementary physical education program.

**HPS 3620-2 Trends and Issues in Human Performance and Sports (2 + 0)**

A chronological study of American physical education, human performance and sports from 1840 to the present, as reflected through trends and issues. European history as it relates to American physical education and the development of AAHPERD are included, plus a comparative view of sport, human performance and physical education with English-speaking and Eastern bloc countries.

**HPS 3700-2 Psychology of Coaching (2 + 0)**

The psychology of coaching various sports. An in-depth study of motivation of the athlete and how the athlete responds under given conditions.

**HPS 3720-3 Science and Art of Coaching and Athletic Administration (3 + 0)**

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This course covers principle aspects of coaching pedagogy and the organizational and planning techniques necessary for successful coaching.

**HPS 3780-2 Fitness Programs for Special Populations (2 + 0)**

Prerequisite: HPS 1640

Discusses ways to adapt fitness programs to meet the needs of people with special exercise requirements such as diabetes, asthma, emphysema, coronary disease and pregnancy.

**HPS 3820-3 Mechanisms of Athletic Injury (3 + 0)**

Prerequisites: HPS 2780, HPS 3300, HPS 3340

Corequisite: HPS 3340

This course discusses the mechanical and physiological basis of athletic injury—its cause, pathology and treatment. Emphasizes those parameters most important in understanding common pathological conditions in athletic injury, as well as the knowledge pertinent to the planning of treatment programs.

**HPS 3840-3 Evaluation Procedures in Athletic Training (2 + 2)**

Prerequisite: HPS 3820

This course familiarizes the athletic training student with the fundamental injury evaluation process, with special attention toward specific injury recognition. Techniques involved in proper palpation, range of motion testing, special functional test, neurological and circulatory assessment will be covered.

**HPS 3860-3 Therapeutic Modalities in Sports Medicine (2 + 2)**

Prerequisite: HPS 3820

This course will familiarize the athletic training student with the fundamental aspects and components necessary in the application of various therapeutic modalities employed in sports medicine.

**HPS 3910-3 Safety Education (3 + 0)**

This course provides the student with knowledge about accident prevention in many areas: home, school, physical and recreational activities, traffic and community.



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### **HPS 3990-1-3 Field Experience in Human Performance and Sport (0 + 2-4-6)**

Prerequisite: approval of instructor

Provides opportunities for students to gain practical experience assisting in the conduct of sports-type and recreation activities with community agencies, schools and the college. Includes K-12 licensure.

### **HPS 4200-3 Community Fitness Testing and Program Planning (2 + 2)**

Prerequisites: HPS 3340 (HPS 4680 suggested)

This course is designed to provide the student with the opportunity to conduct laboratory fitness assessments, evaluate test results and develop exercise prescriptions. In addition, the student will be expected to become knowledgeable about the promotion and marketing of fitness programs.

### **HPS 4500-3 Motor Learning and Development (3 + 0)**

Prerequisite: junior standing

The focus of this course will be an examination of motor learning principles and their role in the developmental stages of individuals. Emphasis is placed on the various aspects of perceptual motor control and environmental factors affecting skill acquisition.

### **HPS 4600-3 Organization, Administration and Curriculum of Human Performance and Sport**

**(3 + 0)**

Prerequisites: senior standing, HPS 1600, and satisfaction of Level I and II General Studies course requirements

This course is designed to teach curriculum design and concerns and the organizational and administrative policies and procedures for developing, conducting and administering programs in human performance. This is a senior experience course and is required of HPSL teaching preparation majors (K-6, K-12, Secondary) and Sport & Allied Field Emphasis. (Senior Experience)

### **HPS 4620-3 Adaptive Human Performance and Sport Activities (2 + 2)**

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This course is designed to adapt human performance and sport activities to the physically and mentally impaired in school and community settings. The course offers field experiences in selected settings for HPSL majors and minors.

### **HPS 4660-3 Legal Liability for Physical Educators, Coaches and Administrators (3 + 0)**

Prerequisites: some coaching and/or formal courses (six hours) in human performance and sport, leisure studies, or health

An elective course designed to inform physical education teachers, coaches, and administrators of the implications and responsibilities of a legal nature involved in school or recreation activity and competitive programs. To prepare teachers, coaches, athletes and/or administrators to deal with and understand basic concepts and trends of law.

### **HPS 4680-3 Advanced Exercise Assessment Techniques (2 + 2)**

Prerequisite: HPS 3340

This course is designed to acquaint the student with the maintenance of exercise laboratory equipment and its use in evaluating physiological capabilities during exercise. Provides experience with physiological testing using laboratory equipment, as well as on-site visitations to other laboratory settings.

### **HPS 4760-3 Therapeutic Rehabilitation in Sports Medicine (2 + 2)**

Prerequisite: HPS 3820

This course will familiarize the athletic training student with the fundamental aspects and components of designing and implementing basic therapeutic rehabilitation exercise programs and techniques.

### **HPS 4840-2 Comparative Fitness Programs (2 + 0)**

Prerequisites: HPS 1640, HPS 3340

This course explores (1) current trends, issues, and environments in adult fitness management, (2) comparison of selected popular fitness and evaluation programs and, (3) certification programs and employment available for adult fitness personnel. This course will provide opportunities for onsite visitations, as well as practical experience with different fitness programs.

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### **HPS 4870-10 Internship for Athletic Training (1 + 27)**

Prerequisites: senior standing, completion of all courses in major curriculum, 2.75 GPA, and satisfaction of Level I and II General Studies course requirements

This internship is designed for Athletic Training Emphasis majors to provide experience in both a clinical and competitive setting. Graded as Satisfactory/Unsatisfactory. (Senior Experience)

### **HPS 4880-10 Internship for Adult Fitness (1 + 27)**

Prerequisites: senior standing, completion of all courses in the major curriculum, 2.75 GPA, and completion of Level I and II General Studies course requirements

This course is designed for adult fitness majors to provide a practical experience in the adult fitness field. Graded as Satisfactory/Unsatisfactory. (Senior Experience)

### **HPS 4890-10 Internship for Human Performance (1 + 27)**

Prerequisites: senior standing, major in HPSL, completion of all courses in the major curriculum, 2.75 GPA, completion of Level I and II General Studies course requirements

This course is designed for majors in human performance and sport who are required to have a practical experience in their major emphasis area. Graded as Satisfactory/Unsatisfactory. (Senior Experience)

### **HSL 1010-2 Skills and Methods of Teaching Tumbling and Fundamentals of Movement (1 + 2)**

This course is intended for HPSL majors and minors. Students have the opportunities to experience principles of biomechanics through performing and teaching basic tumbling moves. Topics include linear and angular motion, axes and planes of movement, equilibrium and mechanical force.

### **HSL 1020-2 Skills and Methods of Teaching Weight Training and Exercise Aerobics (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to acquaint the student with basic skills, methods and techniques necessary to be a competent exercise leader in the areas of resistance training and exercise aerobics. Emphasis will be placed on understanding selection of appropriate teaching progressions for both activities.

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### **HSL 1030-2 Skills and Methods of Teaching Physical Activities for Special Populations (1 + 2)**

This course is intended for HPSL majors and minors. The emphasis of this course is on sport and motor programs for special populations and programs related to those individuals with physical, mental, or multiple disabilities as well as the aging population. This course will include opportunities for experience in designing, implementing and evaluating existing sports and physical activity programs for the disabled.

### **HSL 1040-2 Skills and Methods of Teaching Activities for the Young Child (1 + 2)**

This course is intended for HPSL majors and minors. Activities for the Young Child is a course designed to acquaint students with theories, rationale, activities and materials used to teach physical activities to children at the elementary school level.

### **HSL 1050-2 Skills and Methods of Teaching Rhythms for the Young Child (1 + 2)**

This course is intended for HPSL majors and minors. Rhythms for the Young Child is a course that is designed to provide students the opportunity to gain a basic knowledge of rhythmical activities for use with children in the elementary school grades.

### **HSL 1100-2 Skills and Methods of Teaching Team Handball and Lacrosse (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the sports of team handball and Lacrosse.

### **HSL 1110-2 Skills and Methods of Teaching Soccer and Volleyball (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the team sports of soccer and volleyball.

### **HSL 1120-2 Skills and Methods of Teaching Basketball and Softball (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the team sports of basketball and softball.

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### **HSL 1130-2 Skills and Methods of Teaching Flag Football and Field Hockey (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the team sports of flag football and field hockey.

### **HSL 1200-2 Skills of Swimming, Water Safety and Water Exercise (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills of personal safety in the aquatic environment, efficient movement through and in the water in both swimming styles and in water fitness activities, as well as a basic level of awareness of safety of others.

### **HSL 1210-2 Skills and Methods of Teaching Archery and Track and Field (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the individual sports of archery and track and field.

### **HSL 1220-2 Skills and Methods of Teaching Badminton and Golf (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively play, teach or conduct the sports of badminton and golf.

### **HSL 1230-2 Skills and Methods of Teaching Tennis and Pickleball (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to teach and conduct the sports of tennis and pickleball.

### **HSL 1240-2 Skills and Methods of Teaching Wrestling and Personal Defense (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to teach and conduct the sport of wrestling and skills related to personal defense.

### **HSL 1250-2 Adaptive Aquatic Programs (1 + 2)**

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Prerequisite: current ARC WSI certification

This course acquaints the student with various adapted aquatic programs and methods of teaching the mentally and/or physically disabled. The course leads to Red Cross Adaptive Aquatic certification.

### **HSL 1300-2 Skills and Methods of Teaching Country Western and Folk Dance (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to prepare students to teach both dance forms in a variety of settings. This course will acquaint students with the various movement patterns used in each dance form, as well as prepare them to instruct students at various grade levels and in recreational settings.

### **HSL 1310-2 Skills and Methods of Teaching Modern and Jazz Dance (1 + 2)**

Prerequisites: minimum 1 semester each of modern and jazz or instructor's permission and 2 years of dance experience

This course is intended for HPSL majors and minors. It is designed to prepare the student to teach jazz or modern dance at the beginning or intermediate level and to select appropriate musical accompaniment for the class.

### **HSL 1320-2 Skills and Methods of Teaching Gymnastics (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to cover the teaching methods and performance of basic gymnastics skills appropriate for grades K-12. Three areas of gymnastics are covered: educational gymnastics or fundamental progressions appropriate for grade K-12; rhythmical gymnastics or European style mass exercises using ropes, balls and hoops; and artistic or competitive gymnastics.

### **HSL 1330-2 Skills and Methods of Teaching Improvisation and Choreography (1 + 2)**

Prerequisites: minimum 1 semester ballet, jazz or modern dance or instructor's permission and 2 years of dance experience

This course presents the basic elements of dance. Students explore and create dance movements in order to arrive at finished choreographic studies and they will develop techniques and methods related to improvisation and choreography that will enhance their teaching skills.

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### **HSL 1340-2 Skills and Methods of Teaching Rhythms for Special Populations (1 + 2)**

This course emphasizes skills for the development, implementation and evaluation of rhythmic activities for the handicapped in recreation and rehabilitation programs. The course will also cover a variety of adapted dance and movement techniques for the auditorially and visually impaired, emotionally disturbed, physically handicapped, mentally handicapped and the aged.

### **HSL 1400-2 Skills and Methods of Teaching Camping, Backpacking and Orienteering (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to develop skills, techniques and basic leadership principles needed for camping, backpacking and orienteering.

### **HSL 1410-2 Skills and Methods of Teaching Teambuilding, Initiative and Ropes Course Activities (1 + 2)**

This course is intended for HPSL majors and minors. It is designed to provide an overview of the philosophy and basic skills of team building, initiative activities, and the use of ropes courses in physical education and recreational settings. An opportunity for hands-on participation will be included.

### **HSL 1420-2 Activity and Fitness Programs for the Elderly (1 + 2)**

This course emphasizes skills for the development, implementation and evaluation of activities and fitness programs for older persons in various settings. This course will include opportunities for observation and involvement with various recreation agencies or health care facilities in the Denver area.

### **HSL 1430-2 Camping for Special Populations (1 + 2)**

This class will provide information concerning methods and techniques applicable to camps for special populations and to outdoor recreational outings.

### **HSL 1440-2 Skills and Methods of Teaching Stress Management (1 + 2)**

This course is designed to provide the prospective teacher with an understanding of the elements of stress induced conditions, as well as

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provide a means by which students in this class will become capable of teaching their students how to effectively relieve stressful conditions.

### **HSL 1500-2 Human Performance, Sport and Leisure Studies (1 + 2)**

These courses are required for human performance and sports and leisure studies majors and minors to meet departmental skill requirements in various physical behaviors. They also cover methods of teaching and field experience assignments. All HSL 1500 courses include a cognitive component with written and reading assignments, testing, and assigned laboratory activities.

## **Human Services**

### **HSP 1010-4 Introduction to Human Services and Community Resources (4 + 0)**

This class provides an overview of the helping professions and working within helping agencies. Students examine the attitudes, values and skills essential to becoming an effective Human Services Professional. Factors essential to those working in the helping professions including working with various cultural groups, understanding and interacting with populations having infectious diseases (especially HIV infection), ethics, and political involvement of agencies are important components of the course. Students completing HSP 1010 will have completed eight clock hours of HIV/AIDS education required for certification as substance abuse counselors.

### **HSP 1040-4 Applied Behavior Analysis (4 + 0)**

This course will provide the student with an understanding of the scientific method and the application of the principles and technology of behavioral analysis.

### **HSP 1060-3 Pharmacology of Drugs and Alcohol (3 + 0)**

Prerequisites: BIO 1000 or permission of instructor

Corequisite: HSP drug and alcohol or domestic violence major, or permission of instructor

The class explores the impact of psychoactive substances on the human body with particular emphasis on the nervous system and immune system effects. Students will learn the pharmacological and legal classifications of addicting chemicals. The social, psychological and environmental factors that influence substance use/abuse are discussed as important aspects of addiction. Substance abuse and its association with infectious diseases



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including HIV, venereal diseases, tuberculosis and hepatitis (a six-hour unit) is studied in order to help students fully appreciate the total impact of psychoactive substances on the individual.

**HSP 1110-4 Introduction to Disabilities (4 + 0)**

This course enables students to acquire an appreciation for and sensitivity towards the capabilities, limitations and challenges of individuals with disabilities throughout their life span.

**HSP 1470-3 Addictive Experiences: Sex, Drugs, Rock and Roll (3 + 0)**

How much is too much in the addictive lifestyles in contemporary America? This course provides an examination of the balance between theories of addiction and the addictive experiences. It also focuses on the process of developing healthy habits and nonaddictive lifestyles. This is an elective course for students NOT pursuing a drug/alcohol emphasis and for non-majors. It is not counted as a required elective for drug/alcohol emphasis students.

**HSP 2010-4 Principles of Nonprofit Organization Administration (4 + 0)**

The course will provide the student with a general knowledge of the management principles, organizational structures and management techniques required for the administration of nonprofit organizations.

**HSP 2020-4 Small Group Dynamics: Theory and Experience (4 + 0)**

Prerequisite: HSP 1010

This course introduces the basic theories of small groups with experiential learning experiences to develop skills and strategies for effective group participation and leadership. The universality of feelings and concerns are shared so that one can recognize the dynamics of interpersonal interaction, predict dynamics accurately, demonstrate effective leadership skills and learn to exercise control of the group process and interaction in small group situations.

**HSP 2030-4 Theory and Practice of Counseling (4 + 0)**

Prerequisite: HSP 1010

This course familiarizes students with major theoretical approaches to psychotherapy and to basic interview techniques common to most types of psychotherapy. Students examine and practice effective interviewing skills

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and learn how to gather essential information from clients. The main theories in psychotherapy are also examined.

**HSP 2040-4 Family Systems (4 + 0)**

Prerequisite: HSP 1010, HSP 1040 and HSP 2030

This class provides a brief review of family systems and the roles of family members in traditional and non-traditional families. The theoretical basis for family therapy modalities which serve as guidelines for therapy are described.

**HSP 2050-8 Human Services Practicum I (1 + 14)**

Prerequisites: HSP 1010, HSP 1040, HSP 2020, HSP 2030, HSP 2040, and permission of instructor

This is a 15-hour seminar and a 300-hour practicum that will provide beginning field experience in a human services agency or institution. The student will participate and receive training in the fundamentals of counseling, evaluation, treatment, group dynamics, and interpersonal relationships. The student will learn to perform appropriately to increase skills and effectiveness as a human services student.

**HSP 2060-8 Human Services Practicum II (1 + 14)**

Prerequisites: HSP 1010, HSP 1040, HSP 2020, HSP 2030, HSP 2040, and permission of instructor

This is a 15-hour seminar and a 300-hour practicum that provides professional experience in a human services institution. Practicum II differs from Practicum I in that the student will be in a different agency setting, demonstrate professional competencies and complete an agency analysis. The student will gain experiences in in-takes, counseling, evaluation, treatment, group dynamics, interpersonal relationships, documentation, multicultural counseling and agency analysis for effective functioning as a human services professional. The student is expected to choose his or her concentration for this field placement.

**HSP 2110-3 Inclusive Community Services for People with Disabilities (3 + 0)**

This course prepares students to facilitate the successful integration of people with significant disabilities into community employment, education, living and recreation activities. It presents strategies for effective service design and implementation.

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### **HSP 3040-3 Brief Therapy for Couples (3 + 0)**

Prerequisites: HSP 2040 or permission of instructor

Students will study the counseling of persons involved in emotionally intimate relationships from the perspective of childhood experiences with parents or other primary caretakers. Topics covered will include the influence on the clients of emotional abandonment, childhood wounds, male and female issues, and the tendency to project unmet childhood needs onto adult relationships. Counseling interventions to improve the communication skills of couples will be addressed.

### **HSP 3210-4 Organizational Stability of Nonprofits (4 + 0)**

Prerequisite: HSP 2010 or permission of instructor

This course will provide an examination of the external and internal forces that affect the functioning of nonprofit organizations. Special emphasis will be placed on the interaction between sociopolitical climate and funding sources, the legislative process and lobbying opportunities, and the impact of the systems, personalities, organizational structures and programs operating within a nonprofit organization. Students will learn to apply the principles of strategic planning to public and nonprofit organizations.

### **HSP 3220-2 Conflict Resolution and Decision-Making (2 + 0)**

Prerequisite: junior standing or permission of instructor

This course will focus on the nature, analysis and management of conflict and the use of negotiating skills in leadership situations.

### **HSP 3230-4 High Risk and Offender Youth (4 + 0)**

Prerequisite: HSP 2050, HSP 2060, or permission of instructor

This course is designed to provide an overview and analysis of differential theory and approaches to working with high risk and offender youth who are alcohol and drug involved. Special emphasis will be given to the role of community, family and youth-specific risk and protective factors. Prevention of not only alcohol and drug problems, but other serious contemporary youth issues such as violence, teen pregnancy, sexually transmitted diseases, suicide and school drop-out will be addressed. An overview of multiple and sometimes fragmented service delivery systems will be provided. Special topics will also include multicultural issues, intervention techniques, and innovative alcohol and drug treatment approaches found to be particularly effective with this population.

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### **HSP 3260-2 Survey of the High Risk Youth Integrated Services and Treatment Network (2 + 0)**

Prerequisites: HSP 3230 or permission of instructor

This is an advanced course designed to introduce the potential youth advocate counselor to the range of issues, services and systems involved in the care and treatment of high risk youth including: alcohol and drug treatment; mental health; education; social services; law enforcement; vocational/employment; and others. The course

focus is on understanding and building interdisciplinary partnerships on behalf of youth in a variety of professional contexts. An emphasis is on learning to work effectively across and between systems as well as within them.

### **HSP 3330-2 Ethical and Professional Issues in Human Services (2 + 0)**

Prerequisite: HSP 2050

This course surveys ethical, legal and professional issues facing human services professionals. The course is designed to teach a process of ethical decision-making and to increase awareness of the complexities in the counseling field: codes of ethics, legal considerations, standards of preparation, certification, licensing and role identity of counselors. A critical-thinking component is included in the course.

### **HSP 3410-3 Addiction Family Counseling/Advanced Topics (3 + 0)**

Prerequisite: HSP 2040 or permission of instructor

This course introduces students to the range of theory and application related to methods of intervening therapeutically with the alcohol and drug involved family. Critical elements of understanding the needs of this population are multicultural and structural diversity in family systems, adolescent substance abuse and its impact on the family, maternal substance abuse, and incorporating a strengths-based approach to family treatment planning.

### **HSP 3430-3 Addictive Behaviors (3 + 0)**

Prerequisites: HSP 1040 and HSP 2030

This course provides a detailed study of specific addictive behavior patterns and the most common treatment methods. The range of addictions studied

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includes a variety of non-substance using behaviors such as gambling and eating disorders as well as addictions involving substances. This course will help students clarify a theory of addiction, gain knowledge about the etiology of specific addictions and be introduced to current treatment approaches utilized in the field.

**HSP 3450-4 Crisis Intervention and Legal Issues (4 + 0)**

Prerequisites: HSP 2030 and HSP 2040

This course focuses on crisis intervention and legal aspects applicable to the field of human services. Coursework is designed to give the student an opportunity for competencies development and increased understanding of emergency, legal, and therapeutic interventions.

**HSP 3470-4 Counseling the Substance Abuser (4 + 0)**

Prerequisite: HSP 2030 and HSP 2040

This is a course offering specifically oriented to counseling the substance abuser. Coursework is designed to give the trainee experience in applying fundamentals of individual counseling techniques and client records management. Students completing the course will meet the ADAD requirements for Basic Counseling Skills and Client Record Management.

**HSP 3480-2 Applied Counseling Skills (2 + 0)**

Prerequisite: HSP 2030

Restriction: This class is for Human Services majors who are not pursuing an emphasis in Addiction Studies. The class does not substitute for HSP 3470. Enrollment is limited to 24 students.

This course provides descriptions of entry-level counseling skills and an opportunity to practice the skills with other students. The focus is on understanding and using the skills in counseling situations.

**HSP 3490-4 Multicultural Issues in Human Services (4 + 0)**

Prerequisites: HSP 2030 and satisfaction of Level I General Studies course requirements

This course is designed for those who are intending to work in the delivery of human services especially in the assessment, communication, diagnosis and conducting of counseling and therapy. The course examines the research

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that involves the interaction of counselor and client in individual, group and family therapy. (General Studies—Level II, Social Sciences; Multicultural)

**HSP 3500-3 Domestic Violence: Patterns of Relationship Abuse (3 + 0)**

Prerequisites: HSP 2030 and HSP 2040

The exploration of behavior patterns within families where domestic violence occurs is examined through the study of victims, perpetrators and children within the family. Socialization patterns, developmental stages and psychopathological states that impact on violence between partners are explored, along with treatment issues and approaches for each person.

**HSP 3580-1 The Resistive Client (1 + 0)**

Prerequisites: junior standing or permission of instructor

This course provides the student with a clear understanding of resistance in the counseling process both from the perspective of the client and of the counselor. Various models are used in overcoming resistance and are presented and demonstrated. This course meets the resistive client mandatory training requirement for the CAC II Level for Colorado Addictions Counselors.

**HSP 3590-1 The Resistive Adolescent Client (1 + 0)**

Prerequisites: HSP 3230 or permission of instructor

This is an advanced course intended to instruct the human services professional who counsels youth to understand and apply principles related to working with resistance. This course will focus on counseling with resistive youth in an involuntary treatment setting. Students will learn about motivational approaches to dealing with anger and understanding cultural barriers to effective counseling. Various models will be utilized and demonstrated including motivational interviewing and strengths-based counseling. This course meets the resistive client mandatory training requirement for CAC II and III for Colorado Addictions Counselors.

**HSP 3600-2 Domestic Violence: Perpetrators of Abuse (2 + 0)**

Prerequisites: HSP 2030 and 2040

This course explores and describes the behaviors and attitudes of those who abuse others, the cycle of violence, intergenerational violence and the

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impact of violence on the lives of perpetrators and victims. Students will learn about diagnostic tools to determine lethality and intervention therapy.

**HSP 3610-4 Financial Accountability and Organizational Control in Nonprofit Organizations**

**(4 + 0)**

Prerequisite: HSP 2010 or permission of instructor

The course will include the skills needed to properly manage financial resources and organizational controls in a variety of nonprofit organizations. Topics will include financial record-keeping systems and statements, budgeting, tax compliance, cost control, MIG systems and program accountability and evaluation.

**HSP 3620-2 Prevention Generalist Workshop (2 + 0)**

Prerequisites: HSP 1010, HSP 1040, HSP 2020, HSP 2030 and HSP 2040 or permission of instructor

This class provides the student with information about attitudes of communities and legislative and regulatory agencies towards substance use/abuse. Varying theoretical bases for prevention programs are presented.

**HSP 3650-1 Treatment of Adult Survivors (1 + 0)**

Prerequisites: HSP 2030 and HSP 2040

Abuse is defined from different viewpoints, including emotional, sexual and physical. The process of healing through therapy and support systems for survivors of adult and childhood abuse are studied and therapeutic methodology is explored.

**HSP 3750-4 Holistic Health and High-Level Wellness (4 + 0)**

Prerequisite: HES 2750 or permission of instructor

This course will give the student the opportunity to explore and evaluate holistic health and high level wellness on a personal as well as a professional level. Students will be introduced to the emerging paradigm of health and to a holistic approach towards accessing wellness. The course will include current theory and experiential methods.

**HSP 4020-4 Fundraising and Proposal Writing for Nonprofit Organizations (4 + 0)**

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Prerequisites: HSP 2010 or permission of instructor

This course provides an examination of the various methods of obtaining funds for nonprofit organizations so they can function effectively. Special emphasis will be placed on writing successful proposals, including budgets and budget narrative.

### **HSP 4100-2 Gerontology for Human Service Professionals (2 + 0)**

Prerequisites: HSP 1010, HSP 2030 and HSP 2040

This course focuses on the ways in which human services professionals can provide counseling for aging persons. This is a skills-based course that uses the basic clinical skills learned in interviewing classes but expands these skills toward working with the aged. The course will also give students an opportunity to work with aging individuals in a human service capacity. The major developmental aspects of aging will be reviewed.

### **HSP 4110-2 Enabling People with Disabilities (2 + 0)**

Prerequisites: HSP 1110 or permission of instructor

The course is designed to provide the student with an understanding and awareness of people with disabilities. The student will be introduced to the concept of social role valorization and the implications of this concept for planning services for people with disabilities.

### **HSP 4200-2 Child Abuse and Neglect (2 + 0)**

Prerequisites: HSP 2030 and HSP 2040

This course deals with an historical understanding of child abuse, neglect and sexual exploitation, including definitions, dynamics, effects on the victim, how society intervenes and prevention methods.

### **HSP 4220-2 Family Sculpting (2 + 0)**

Prerequisites: HSP 2030, HSP 2040, and HSP 3470 or permission of instructor

This course is an introduction to the uses of family sculpting and related experiential techniques in working with individuals, families and groups.

### **HSP 4250-2 Counseling the Gay or Lesbian Client (2 + 0)**

Prerequisite: HSP 2030



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The rate of abuse of psychoactive substances among gays and lesbians is significantly higher than in the rest of the population. Violence, while under the influence, brings these individuals into counseling. The issue of homosexuality in the greater society must be considered when counseling these individuals. This course addresses the lifestyle patterns of homosexuals and the relationship to substance abuse and violence treatment.

### **HSP 4280-1 Gender Issues in Treatment and Recovery (1 + 0)**

Prerequisite: HSP 2030

The socialization of males and females affects the use/abuse of psychoactive substances. A high percentage of persons in treatment for domestic violence also have underlying substance abuse issues. This class addresses gender-related treatment and recovery considerations.

### **HSP 4290-1 PTSD Counseling (1 + 0)**

Prerequisite: HSP 2030

Post-Traumatic Stress Disorder (PTSD) occurs among people who have experienced violence, whether the cause is war, child abuse, or domestic violence. Eighty-five percent of people with PTSD abuse psychoactive substances. This course explores the causes of PTSD, the symptoms and treatment. The relationship of the disorder to substance abuse and violence in the form of domestic disturbances is studied along with intervention and treatment.

### **HSP 4310-4 Human Resource Development in Nonprofit Organizations (4 + 0)**

Prerequisites: HSP 2010 or permission of instructor

This course will provide students with a comprehensive study of the use of human resources in a variety of roles within nonprofit organizations including recruitment, training and development of volunteers, board members, and staff.

### **HSP 4320-4 Psychopathology and the Mental Health Clinician (4 + 0)**

Prerequisites: two of the following: HSP 2050, HSP 2060 or permission of instructor

This course introduces and describes psychopathology nomenclature so that students will be able to recognize psychopathology. Biological, psychosocial

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and sociocultural etiological perspectives of psychopathology will be discussed. The course will introduce the basic treatment approaches and critically analyze the advantages and disadvantages of mental disturbance labeling and their societal implications.

**HSP 4360-4 Advanced Intervention Techniques (4 + 0)**

Prerequisites: HSP 2030 and HSP 2040; HSP 2050 and HSP 2060

This is an advanced therapeutics course designed for the human services professional with emphasis on the correct assessment of dysfunctional behaviors and their indicated treatment/interventions.

**HSP 4490-1-4 Contemporary Issues in Human Services: Variable Topics (1-4 + 0)**

Prerequisites: junior standing or permission of instructor

This is a variable titled course focusing on current issues and trends in the field of human services. The course is designed to provide the human services professional with an opportunity to explore new or alternative modalities in assessment, intervention and treatment of dysfunctional behaviors. This course may be repeated for credit under different topics.

**HSP 4500-1 Legal Liabilities in the Helping Professions (1 + 0)**

Prerequisites: HSP 1010, HSP 2030 and junior/senior standing

Laws that relate to the helping professions and their implications for human service professionals are discussed. Students will learn how to address and work with laws relating to confidentiality, client records and legal documents kept on each client, ethical and professional standards, subpoenas, legal actions, search warrants and preparation for court testimony.

**HSP 4520-3 Grief Counseling (3 + 0)**

Prerequisites: HSP 2030 or permission of instructor

Loss is a natural consequence of living. This is a skills-based class that deals with the grief process as it relates to life changes, divorce, aging, illness and death. Students will learn specific strategies for counseling those who have experienced loss.

**HSP 4540-2****(CJC 405B, EDU 4540) Youth, Drugs and Gangs (2 + 0)**

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Prerequisites: HSP 2030 and HSP 2040

Child abuse, neglect and substance abuse are underlying issues for gang members. This course explores the reasons youth are attracted to and join gangs and the correlation between psychoactive substances and violence. Credit will be granted for only one prefix: HSP, CJC or EDU.

### **HSP 4650-4 Group Facilitation and Group Counseling (4 + 0)**

Prerequisite: HSP 2020 or permission of instructor

A comprehensive experience of facilitating a small closed group for ten weeks to develop facilitation/leadership skills and to learn techniques of effective intervention in group counseling. The importance of creative use and exploration of self is central to successful facilitation as ten current group counseling methods are practiced.

### **HSP 4680-4 Supervisory Techniques in Nonprofit Organizations (Health Care Agencies) (4 + 0)**

Prerequisites: HSP 2010 or permission of instructor

This course will provide students with the theoretical models, principles and skill development required to supervise employees in a health care (nonprofit) setting.

### **HSP 4790-12 Professional Internship (2 + 30)**

Prerequisites: Human Services major with senior standing and/or approval of department chair and satisfaction of all Level I and Level II General Studies course requirements; HSP 2050 and HSP 2060 or permission of instructor

The professional internship is the culmination of training for the bachelor's degree in human services. The internship is distinguished from work activities in that it is the student's responsibility to demonstrate that some project has been completed above and beyond the usual requirements of a job. (Senior Experience)

## **Intercultural Studies**

### **ICS 1000-3 Introduction to Asian-American Studies (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment placements tests

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This course focuses on the history of Asians in America, their social and psychological adjustment, and their involvement in American economic and political systems. The unique aspects of Asian-American cultures will be examined through examples of literature and films. (General Studies-Level II, Social Science, Multicultural)

### **ICS 2100-3**

#### **(AAS 2100, CHS 2100, NAS 2100, WMS 2100) Women of Color (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment tests; one of the following: AAS 1010, CHS 1000, ICS 1000, NAS 1000, or WMS 1001; or permission of instructor

Though U.S. women share much in common, their differences are salient to a thorough understanding of all these women's experiences. Comparative analysis of these differences and their significance according to race, class and ethnicity are central to this course. The similarities among diverse groups of women will also be examined in order to better understand the complexity of women's lives. To focus the discussion, the course will cover work; families; sexuality and reproduction; religion; and politics. Credit will be granted for only one prefix: ICS or AAS or CHS or NAS or WMS. (General Studies-Level II, Social Sciences; Multicultural)

### **Industrial and Technical Studies**

#### **ITS 1010-4 Introduction to Woodworking (2 + 4)**

An introductory course designed to give the student basic information about woods, their selection and use, and to provide the basic skill development in the use of selected woodworking tools, machines and practices. Finishing and preservation of wood will also be studied and utilized.

#### **ITS 1030-2 Finishing Materials and Processes (1 + 2)**

A study of materials, processes and procedures used in the finishing of industrial products. Includes preparation, abrasives, natural and synthetic coatings, chemical treatments used in the woods, metals and plastics industries.

#### **ITS 1130-3 Introduction to Plastics (1 + 4)**

This course is an introduction to the basic manufacturing processes and techniques used in the plastics industries. A variety of forming, casting, and reinforced plastic processes will be examined.

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### **ITS 1200-2 Introduction to General Metals: Cold Metals (1 + 2)**

A combination lecture/laboratory course covering machine metals, sheet metal and bench metal areas. Emphasis is on a student-designed projects, forming, cutting, and finishing.

### **ITS 1220-2 Introduction to General Metals: Hot Metals (1 + 2)**

A combination lecture/laboratory course covering foundry, forging, heat treating and welding processes. Includes pattern-making, coremaking, cutting, forming and finishing.

### **ITS 1430-2 Industrial Drawing (1 + 2)**

This course is an introduction to industrial drawing through sketching and the use of basic drawing instruments including machines. Topics include lettering, drawing symbols, pictorial drawing, geometric construction, orthographic projections and dimensioning.

### **ITS 1470-3 Perspective Drawing (1 + 4)**

Prerequisite: ITS 1430

This course introduces the student to the basic concepts and skills used in industry to communicate ideas and to produce perspective drawings. Students will develop drawing skills which will represent objects as the eye sees them. The students will be subjected to a study in visual reality graphic form; visual impact; and the logic and proof of what we see.

### **ITS 1500-2 Introduction to Graphic Arts I (1 + 2)**

An introduction to the graphic arts industry. Experiences include layout and design, composition for letterpress and silk screen.

### **ITS 1510-2 Introduction to Graphic Arts II (1 + 2)**

An introduction to the graphic arts industry. Experiences include layout and design, composition, process camera and darkroom procedures for offset lithography.

### **ITS 1660-3 Introduction to Power (1 + 4)**

This course deals with the theory, application, transmission, and control of hydraulic, pneumatic and mechanical power systems. Attention also is given to the study of the theory and operation of the internal combustion engine.

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**ITS 1710-2 Consumer Electricity and Electronics: Communication Systems (1 + 2)**

Prerequisite: PHY 1000

A lecture/laboratory course covering electrical and electronic theory and its practical application pertaining to telephone, electronic and light transmission and receiver systems.

**ITS 1720-2 Consumer Electricity and Electronics: Control Systems (1 + 2)**

Prerequisite: PHY 1000

A lecture/laboratory course covering electrical and electronic theory and its practical application pertaining to numerical and electronic control devices used in industrial production.

**ITS 1750-2 Consumer Electricity and Electronics: Residential Systems (1 + 2)**

Prerequisite: PHY 1000

This is a lecture/laboratory course covering an introduction to electrical/electronic theory and its practical application in electronic circuits and in residential distribution control, alarm and information systems.

**ITS 2310-2 Art Metal, Silversmith, and Lapidary (1 + 2)**

Covers the processes of fabrication in gem cutting and mounting, hand wrought, sand casting and investment casting of metals. Also includes metal forming, tooling, spinning, etching, enameling and powdered metallurgy. Student may specialize in one or more areas.

**ITS 2450-3 Beginning Industrial Design (1 + 4)**

Prerequisites: ART 1110, ART 1210, ITS 1430, ITS 1470

In both a laboratory and studio environment, fundamental design principles will be applied to a variety of three-dimensional form, products and structures. Materials, tools, techniques, human factors, forms, and visual aesthetics as related to products and their function, will be a consideration of the assigned individual student creative project solutions.

**ITS 2690-2 Alternate Energy & Transportation (2 + 0)**

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This is a lecture course, designed to take a comprehensive look at the alternate energy sources and systems; it includes a study of modes of powering vehicles by other than fossil fuel and alternatives to private vehicle transportation.

### **ITS 2810-3 Technology, Society, and You (3 + 0)**

Prerequisites: satisfaction of the Level I Mathematics requirement and either ENG 101 or the Level I Communication requirement

This course is designed to focus on the impacts and implications technology has or will have on society. The course presents students with the opportunity to study and develop an understanding of how technology affects people, families, education, economics, politics and ethics. History and future implications will also be studied. Emphasis will be placed on people's understanding of industrial materials, processes and control of technology. (General Studies-Level II, Social Sciences)

### **ITS 2830-2 Manufacturing Organization and Processes (2 + 0)**

This course is combination lecture/lab course outlining the internal organizational structure, function and operation of a variety of manufacturing industries. Laboratory experiences will focus on commonly shared processes in raw materials and production of jigs and fixtures.

### **ITS 3100-4 Advanced Plastics (2 + 4)**

Prerequisite: ITS 1130

An in-depth study, lecture and lab, of the materials, processes and procedures used in the plastics industries.

### **ITS 3210-4 Advanced Metalworking (2 + 4)**

Prerequisites: ITS 1200 and ITS 1220

Advanced study and laboratory experience in metal fabrication, including sheet and ornamental metal, foundry, welding and machine. Introduction to the fundamentals of numerical-controlled production.

### **ITS 3410-3 Computer Aided Drafting for Industry (1 + 2)**

Prerequisite: ITS 1430 or permission of instructor

This course is an introduction to the principles of Computer Aided Drafting (CAD) and an understanding of the

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DOS (Disk Operating System). The student will learn the menu pages that contain all of AutoCAD's commands and practices. The production of lines, arcs, points, and polygons will be studied.

### **ITS 3450-3 Intermediate Industrial Design (1 + 4)**

Prerequisite: ITS 2450

Students will produce functional aesthetic designs of consumer products for industry, with emphasis placed upon relevance of materials to the manufacturing method of the design concept in application. Materials of emphasis are wood, metals, and plastics.

### **ITS 3480-3 Industrial Design Model Making (1 + 4)**

Prerequisite: ITS 3450

In a studio and laboratory environment, students will gain experience with a variety of hand tools, materials and techniques, to develop scale models. Students will learn to construct study models using appropriate materials and learn to use the model to evaluate and communicate product design concepts.

### **ITS 3500-4 Advanced Graphic Arts (2 + 4)**

Prerequisites: ITS 1500 and ITS 1510

An in-depth study, lecture and lab, of the methods and processes that produce a number of copies of pictorial, decorative, or typographic arrangements on paper or other surfaces, by offset lithography and screen processes.

### **ITS 3530-3 Digital Photography (1 + 4)**

Prerequisite: junior standing or permission of instructor

This course is designed to provide students with a variety of experiences with digital imaging using computer software and digital cameras.

### **ITS 3660-3 Computer Aided Industrial Design (1 + 4)**

Prerequisites: ITS 2450 and ITS 3410

In both a laboratory and studio environment, students will gain experience with the IBM computer to develop the product as a three-dimensional object in space and to generate rendering of design concepts.



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**ITS 3700-3 Industrial Safety (3 + 0)**

Prerequisite: completion of trade or technical associate degree program or permission of instructor

Industrial safety related to industry and school shops. Includes history, accident facts, liability, psychology, worker performance, industrial methods of operation and sources of information.

**ITS 3710-3 Developments in Industrial and Technical Processes (3 + 0)**

Prerequisite: completion of trade or technical associate degree program or permission of instructor

An in-depth exploration of the elements common to all trade and technical industries: past standards, current developments and future trends.

**ITS 3720-3 Characteristics of Industrial and Technical Personnel Selection, Supervision and Evaluation (3 + 0)**

Prerequisite: completion of trade or technical associate degree program or permission of instructor

Deals with the unique characteristics that exist in trade or technical operations including the selection, supervision and evaluation of personnel in industry. A practical study of the career mobility opportunities and future trends in personnel management in industry.

**ITS 3800-4 Industrial Safety and Production (2 + 4)**

Prerequisites: ITS 1010, ITS 1130, ITS 1200, and ITS 1220

A combination lecture/laboratory course covering safety practices and procedures and fundamentals of industrial production. Experience is gained in production planning, design, and construction of jigs and fixtures used in mass production.

**ITS 3810-2 Industrial Arts for the Elementary School (1 + 2)**

Includes the development of some basic tool skills that classroom teachers may find useful in using the industrial arts to enrich other disciplines. The use of career education as an awareness of occupations is included.

**ITS 3950-3 History of Industrial Product Design (3 + 0)**

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Prerequisites: ITS 2450 and ITS 3450

This course is created to provide students with a historical perspective of the various styling and design movements within and adjunct to industrial product design.

### **ITS 4030-4 Advanced Wood Processes (2 + 4)**

Prerequisite: ITS 1010 or permission of instructor

This course is a combination lecture and laboratory course surveying and applying the use of industrial cabinet and millwork procedures and materials. The laboratory experiences will focus on specific processes on specific equipment used in the industry. Emphasis will be placed on new materials, hardware and equipment utilized in the cabinet industry.

### **ITS 4090-3 Advanced Modelmaking Fabrication Techniques (1 + 4)**

Prerequisite: ITS 3480

This course will provide students with the opportunity to fabricate finished scale product models. A variety of machine tools, processes and materials will be used to complete the fabrication process.

### **ITS 4200-4 Welding Technology (2 + 4)**

Prerequisite: ITS 1220 or permission of instructor

A combination lecture/laboratory course that includes practical exercises and weldment testing involving the following processes: shielded metal arc, MIG, TIG, oxyacetylene welding, brazing and flame cutting.

### **ITS 4410-3 Computer Aided Drafting for Industry II (1 + 4)**

Prerequisites: ITS 1430 and ITS 3410

This course is a continuation of the principles of Computer Aided Drafting (CAD). Advanced operations of AutoCAD will be used to produce drawings that are consistent with industry standards.

### **ITS 4450-3 Advanced Industrial Design I (1 + 4)**

Prerequisite: ITS 3450

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This course is a continuation of ITS 3450, extending industrial designing to corporate image, product packaging and display. Special emphasis is given to human factors in product design.

### **ITS 4460-3 Advanced Industrial Design II (1 + 4)**

Prerequisite: ITS 4450

This course is the conclusion of the industrial design courses sequence in which the student develops a professional design portfolio appropriate for job interviewing.

### **ITS 4540-3 Advanced Design Concept Visualization (1 + 4)**

Prerequisite: ITS 3450

In a studio environment, students will gain experience in advanced idea generation and visualization for industrial design. Strong emphasis will be on skill development, as well as creative ways of employing new techniques to a variety of applications.

### **ITS 4710-8 Trade and Technical Practicum (1 + 14)**

Prerequisite: completion of 12 credits beyond an associate degree in a trade or technical program

An advanced-level, supervised field experience in an area related to the technical and industrial administration major. The field experience is conducted by an affiliated organization in collaboration with the industrial and technical studies faculty and the student.

### **ITS 4730-3 Assessment of Trade and Technical Enterprises (3 + 0)**

Prerequisite: completion of trade or technical associate degree program or permission of instructor

A study of the methods of assessing specific trade and technical industries and competitive products; techniques of market sampling, product development and promotion; patent law and patent search.

### **ITS 4740-2 Organizational Structures for Technical Enterprises (2 + 0)**

Prerequisite: completion of trade or technical associate degree program or permission of instructor

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An examination of organizational structures such as sole proprietorship, partnerships, corporations and franchises. Attention is given to liability and tax implications.

**ITS 4810-3 Curriculum and Methods of Teaching Industrial Arts (2 + 3)**

Prerequisite: ITS 3800

A study of the history, philosophy and objectives of industrial arts. Development of a course of instruction including unit and lesson plans. Experience in development and execution of appropriate instructional methods. Three clock hours per week must be arranged concurrent with, and by permission of, the instructor of one of the industrial and technical studies core courses.

**ITS 4830-3 Organization and Administration of Industrial Arts (3 + 0)**

Prerequisite: ITS 3800

Three areas of emphasis are included: (1) Planning and organizing multiple activity facilities and programs, (2) the selection and maintenance of equipment, and (3) the teacher's role in the organization and administration of an effective industrial arts program, including individual courses. Working with advisory committees as a means of program development will be emphasized.

**ITS 4840-2 Emerging Technologies (2 + 0)**

Prerequisites: senior standing and ITS 2810

This course is designed to study the creation and utilization of adaptive means, including tools, machines, materials, techniques and systems. Tools and technical systems have enabled humankind to survive and have had an effect on the physical world. This course will discover and explore the very latest technologies that affect our lives.

**ITS 4860-2 Research in Industrial Technology (2 + 0)**

Prerequisites: senior standing; ITS majors/minors and TIA majors only

This course provides in-depth research, laboratory experimentation, and/or development of a student-selected and faculty-approved topic in one technical system. The areas of research are: communications, manufacturing and transportation/power. The course allows the student the opportunity to

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further develop problem-solving abilities. At the same time, the process enhances the student's knowledge and skills in a technical concentration.

**ITS 4870-1-5 Special Studies in Industrial and Technical Studies (0 + 2-10)**

Prerequisite: permission of instructor

A study and investigation of a selected topic in the field of industrial and technical studies. Student may repeat this course in alternate areas of emphasis.

**ITS 4960-4 Professional Industrial Internship (1 + 9)**

Prerequisites: satisfaction of all Level I and Level II General Studies course requirements, senior standing, and/or completion of 12 credits beyond associate's degree in a trade or technical program. Industrial Design Majors.

The industrial internship is the culmination of training for the bachelor's degree in technical and industrial administration, industrial design, or the non-teaching emphasis of industrial technology. The internship is distinguished from work activities in that it is the student's responsibility to demonstrate that some project has been completed above and beyond the usual requirements of a job. (Senior Experience)

**Japanese****JPS 1010-5 Elementary Japanese I (5 + 0)**

This basic course in Japanese emphasizes pronunciation, speaking and understanding, supplemented by grammar, reading and writing.

**JPS 1020-5 Elementary Japanese II (5 + 0)**

Prerequisite: JPS 1010 or equivalent

As a continuation of JPS 1010, this course further emphasizes pronunciation, speaking and understanding based on more complex grammar, reading and writing activities.

**JPS 2010-3 Intermediate Japanese I (3 + 0)**

Prerequisite: JPS 1020 or equivalent

This is the first semester of a two-semester intermediate Japanese language sequence specifically designed to strengthen grammatical skills and

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proficiency in speaking, understanding, reading and writing. The course will also introduce students to a sampling of social, cultural and literary topics central to the understanding of Japan and the Japanese people.

**JPS 2020-3 Intermediate Japanese II (3 + 0)**

Prerequisite: JPS 2010 or equivalent

This second course in the JPS 2010-2020 sequence is designed to continue strengthening grammatical skills and proficiency in speaking, understanding, reading and writing. It will also present further examples of sociocultural issues central to Japan and the Japanese people.

**Journalism****JRN 1010-3 Introduction to Journalism and Mass Media (3 + 0)**

Prerequisites: minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests.

This course is a study of the historical development of newspapers and their role in U.S. society, and an exploration of the nature and impact of books, television, radio, magazines, films, public relations, advertising and technology and their relationship to journalism. (General Studies-Level II, Social Sciences)

**JRN 1100-3 Beginning Reporting and News Writing (2 + 2)**

Prerequisites: ENG 1010 or permission of instructor

This course provides concentration in a lecture and laboratory setting on the development of the basic skills of reporting and news writing, with stress on accuracy, completeness, clarity, speed and fairness.

**JRN 1200-3 Beginning News Editing (2 + 2)**

Prerequisites: ENG 1010 or permission of instructor

This course is an introduction to and intensive practice in the techniques of copy editing and headline and cutline writing. Laboratory practice is provided.

**JRN 2100-3 Intermediate Reporting and News Writing (2 + 2)**

Prerequisites: JRN 1100 or permission of instructor

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This course allows students to refine the news gathering, interviewing and writing techniques that were learned in Beginning Reporting and Newswriting by introducing them to crime, courts and government reporting. Laboratory time to perfect writing skills is provided. Students are required to cover events out of class.

### **JRN 2200-3 Intermediate News Editing (2 + 2)**

Prerequisites: JRN 1200 or permission of instructor

This course provides advanced training in complex problems of copy editing, headline and caption writing and news judgment, with an introduction to page design and photo editing. Included is laboratory time to practice these skills.

### **JRN 2700-3 Fundamentals of Public Relations (3 + 0)**

Prerequisites: JRN 2100 or permission of instructor

This course is an introductory analysis and practical exploration of the roles and functions of public relations as it relates to an organization's internal and external publics. Development of practical skills include persuasive strategies, media relations and effective news releases.

### **JRN 3100-3 Publication Practicum (0 + 6)**

Prerequisite: JRN 2100 or permission of instructor

The student, under supervision, will report and write publishable news and feature stories for Denver-area daily and weekly newspapers and publications, including *The Metropolitan*.

### **JRN 3150-3 Contemporary Issues (3 + 0)**

Prerequisites: JRN 2100 or permission of instructor

Students will perform in-depth investigation and writing about political, social, or economic issues, wherein each student works independently (but shares the experience with the entire class) on a particular theme or community issue.

### **JRN 3400-3 Feature Article Writing for Newspapers (3 + 0)**

Prerequisites: JRN 2100 or permission of instructor

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Students will study the content and writing style of newspaper features, with numerous assignments in developing feature ideas and producing finished stories.

### **JRN 3500-1 Topics in Journalism (1 + 0)**

Prerequisites: JRN 2100 and JRN 2200 or permission of instructor

This course will provide students with a brief look at a variety of topics in journalism, including specialized areas of reporting and writing techniques. Topics will vary each semester. This course can be repeated for credit.

### **JRN 3550-3 Print Media Advertising Sales (2 + 2)**

Prerequisites: ENG 1010, JRN 1010, MKT 3000, MKT 3110 or permission of instructor

Students will learn print media advertising sales theory related to analysis construction, placement and effects. Practical experience will include work as a sales agent for a publication.

### **JRN 3600-3**

### **(ART 3290) Photojournalism I (0 + 6)**

Prerequisites: JRN 1100, ART 2200 or permission of instructor

This course provides an introduction to photojournalism and techniques used in photography for the print media. Students must have a working knowledge of 35mm cameras and darkroom procedures. Credit will be granted for only one prefix: JRN or ART.

### **JRN 3700-3 Public Relations Writing (3 + 0)**

Prerequisites: JRN 2700 or permission of instructor

This course applies public relations theory, principles, techniques, and practices to teaching students to write specific publications and documents, such as news releases, press kits, public service announcements, newsletters and other communications materials.

### **JRN 4100-3 Advanced Reporting (3 + 0)**

Prerequisites: JRN 1200, JRN 2100 or permission of instructor



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This course is an in-depth look at reporting local governmental issues and at investigative reporting with a special emphasis on the use of documents as a research tool.

**JRN 4150-6 The Capitol Reporter: Writing/Reporting (0 + 12)**

Prerequisites: JRN 2100 or permission of instructor

Students under the direction of professional editors report on the state legislature, covering committee meetings and floor action in the Senate and House, interviewing senators, representatives, lobbyists and others to create several stories a week.

**JRN 4160-3 The Capitol Reporter: Editing/Design (0+ 6)**

Prerequisites: JRN 2100, JRN 3600 or permission of instructor

Students under the direction of professional editors help edit and lay out the weekly Capitol Reporter internship newspaper on QuarkXpress computer page design program. Photojournalism, computer graphics and political cartooning skills may also be used in this course.

**JRN 4200-3 Principles of Newspaper and Magazine Design (2 + 2)**

Prerequisites: JRN 1100, JRN 2200 or permission of instructor

This is an advanced course in layout and design of newspapers, magazines, newsletters, brochures and other professional publications, including advanced problems in news judgment, photo editing and layout, use of graphics and editing and headline writing. Students will spend laboratory time designing pages.

**JRN 4400-3 Feature Article Writing for Magazines (3 + 0)**

Prerequisites: JRN 3400 or permission of instructor

This course includes intensive study in and application of the techniques and marketing requirements for producing and selling feature articles to magazines.

**JRN 4500-3 Ethical and Legal Issues in Journalism (3 + 0)**

Prerequisites: JRN 2100 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing.

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This course is an intensive study into ethical dilemmas and constitutional and legal conflicts in the news media. (Senior Experience)

### **JRN 4600-3**

#### **(ART 4290) Photojournalism II (0 + 6)**

Prerequisites: JRN 3600 or permission of instructor

This course provides advanced training in photojournalism and techniques used in photography for the print media. Students must have a working knowledge of 35mm cameras and darkroom procedures. Credit will be granted for only one prefix: JRN or ART.

### **JRN 4700-3 Public Relations Strategic Planning (3 + 0)**

Prerequisites: JRN 3700

This course applies public relations theory and techniques to identify, research and solve public relations issues facing institutions and/or community non-profit agencies in one or more comprehensive semester-long projects.

## **Leisure Studies Courses**

### **LES 1870-3 Introduction to Recreation and Leisure Services (3 + 0)**

This course provides an overview to the leisure services profession, including career opportunities. Philosophy, historical issues, leisure education, and the relationships among governmental, institutional, volunteer and private agencies are discussed.

### **LES 2110-3 Leadership Skills and Techniques in Leisure Services (3 + 0)**

Prerequisites: LES 1870 or approval of instructor

This course provides the study and appreciation of leadership techniques used in planning and implementing activities and programs for leisure service delivery systems, including field experiences and observations.

### **LES 2150-3 Maintenance of Leisure Service Facilities and Recreation Equipment (3 + 0)**

This course examines maintenance requirements and management procedures needed for leisure service facilities and equipment. Settings

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discussed include recreation centers, parks, open spaces, aquatics and commercial facilities.

**LES 2210-3 Camping and Outdoor Recreation (2 + 2)**

This course will review history, trends, programs, management, skills and leadership techniques common to camp and outdoor recreation programs.

**LES 2330-3 Advocacy, Leisure, and the Aging Adult (2 + 2)**

This course studies the impact of advocacy and social action programs representing and providing leisure programs for the aging adult. Discussion will include issues at the local, state and national levels and their implications to leisure programs. The course will provide an opportunity for students to become involved with local advocacy programs in the community.

**LES 2350-3 Leisure Services for Special Populations (3 + 0)**

This course is designed to address leisure programs for individuals who have special needs in the mental, physical, developmental, or social domains. Included in this course are characteristics of individuals with special needs.

**LES 3070-3 Health and Movement Problems in the Aging Adult (3 + 0)**

Prerequisites: BIO 2310, HPS 1640 or permission of instructor

This course is designed to acquaint the student with the anatomical and physiological changes that occur with aging and how they affect the health and mobility of the aging adult. Physical activity will be discussed as an intervention procedure that can be used to minimize problems associated with these changes. This course will include an opportunity for onsite observation and involvement.

**LES 3330-3 Introduction to Therapeutic Recreation Services (2 + 2)**

Prerequisite: LES 2350

This course is a study of the therapeutic recreation services provided for special populations administered by federal, state, and local health-care treatment facilities. Emphasizes agency organization, administration and therapeutic leadership. Course includes involvement with various health-care facilities in the Denver area.

**LES 3430-3 Program Development in Therapeutic Recreation (3 + 0)**

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Prerequisite: LES 3330

This course focuses on applying programming concepts including conceptualization, planning, implementation and evaluation of comprehensive and specific therapeutic recreation services. Equipment, program modifications and adaptations are discussed.

### **LES 3530-3 Techniques in Therapeutic Recreation (2 + 2)**

Prerequisite: LES 3330

This course of study will examine assessment tools, techniques and procedures utilized in therapeutic recreation programs. Students will design individual treatment/program plans and apply various documentation and charting procedures. This course includes involvement in an agency providing therapeutic recreation services.

### **LES 3830-3 Facilities and Area Design in Leisure Services (3 + 0)**

Prerequisite: LES 2150

This course examines the requirements necessary for the planning and design of leisure service facilities and areas including open space, recreation centers, parks, aquatics, sports areas and commercial facilities.

### **LES 3870-2 Leisure Services Internship Seminar (2 + 0)**

Prerequisite: second semester junior or permission of instructor

This course prepares the LES major for an internship placement in the leisure services field and includes topics such as goal setting, agency identification, supervisor qualifications, professional certification, ethics, time management, financial issues, and agency and personal philosophy.

### **LES 3930-1-3 Contemporary Issues in Leisure Studies: Variable Topics (1-3 + 0)**

This is a variable titled course focusing on a variety of contemporary issues impacting the leisure service industry. This course deals with issues of professional importance to students with an emphasis in various facets of the leisure service field. This course cannot be repeated for credit under a similar title.

### **LES 3970-3 Practicum in Leisure Services (1 + 4)**

Prerequisites: LES 1870, LES 2110, LES 2350

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This practicum is a 90-hour, structured, practical experience that will provide a transition from the college class environment to the professional leisure setting for the purpose of allowing students to explore career opportunities. This experience will be under the supervision of an agency professional and MSCD faculty member.

### **LES 3990-1-3 Field Experience in Leisure Studies (.5-1 + 1-4)**

Prerequisite: approval of instructor

Provides opportunities for students to gain practical experience assisting in the conduct of sports-type and recreation activities with community agencies, schools and the college.

### **LES 4030-3 Issues and Trends in Therapeutic Recreation (3 + 0)**

Prerequisite: LES 3330

This course focuses on contemporary issues impacting the profession in therapeutic recreation and includes topics such as standards of practice, ethical guidelines, credentials, philosophies, training and competency, reimbursement and research initiatives.

### **LES 4110-3 Program Development in Leisure Services (3 + 0)**

Prerequisites: LES 1870, LES 2110, LES 2350, and LES 3970

This course prepares students to develop effective recreation programs in diverse settings, including urban, public, private and volunteer agencies.

### **LES 4130-3 Administration of Leisure Services (3 + 0)**

Prerequisite: LES 1870, LES 2110, LES 2350, and LES 3970

This course provides knowledge of the principles and practices required in leisure services agencies. Topics include personnel management, fiscal management, legal aspects, computer application, evaluations and research.

### **LES 4150-3 Advanced Techniques in Therapeutic Recreation (2 + 2)**

Prerequisites: LES 3530, LES 3970

This course of study will focus on intervention techniques and leadership roles and functions of therapeutic recreators. Individual and group facilitation techniques will be discussed. This course includes involvement with a clinical/community setting.

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### **LES 4550-3 Management of Aquatic Resources (3 + 0)**

Prerequisites: HPS 1660, HPS 2160

This course emphasizes the development, organization and management of aquatic programs utilized in a variety of leisure service settings.

### **LES 4630-3 Leisure Service Programs for the Older Adult (3 + 0)**

Prerequisite: junior standing

This course studies the role of recreation and leisure services as they relate to understanding the needs of services for the older adult. Emphasis will be on recreation planning in senior centers, skilled nursing facilities, day care centers and long-term care facilities.

### **LES 4730-3 Sociology of Athletics in American Society (3 + 0)**

Prerequisites: SOC 1010 and junior standing

This course will examine and utilize basic sociological concepts to explain the relationship of sport to society. In addition, the course will investigate the impact of sports and athletics in our culture. (General Studies-Level II, Social Sciences)

### **LES 4810-3 Grants and Financial Aid Programs in Leisure Services (3 + 0)**

Prerequisites: LES 2110, LES 2150 or permission of instructor

This course provides the student with an understanding of government and private funding sources, resources to locate funding agencies, and an opportunity to write a grant proposal based on community needs.

### **LES 4850-3 Advanced Administration in Leisure Services (3 + 0)**

Prerequisites: LES 4130

This course provides intensive opportunities for students to develop administrative skills required in leisure service agencies and includes topics such as development of agency policies and procedures, grant writing, applied research techniques, human resource management and risk management planning.

### **LES 4890-12 Internship for Leisure Studies (1 + 33)**

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Prerequisites: leisure studies major, senior standing, completion of major core and emphasis area courses, a 2.75 GPA, and satisfaction of Level I and Level II General Studies course requirements

This course is designed for leisure studies majors to provide a practical experience in the leisure service industry. Evaluation of course will be assessed as "S" satisfactory or "U" unsatisfactory. (Senior Experience)

## **Modern Languages**

### **MDL 1300-2 Languages for the Professionals (2 + 0)**

To afford the students a practical knowledge of a foreign language (Spanish, German, French, etc.) in order to facilitate communication and to provide understanding in a specific professional field. May be repeated for credit as the course title changes.

### **MDL 1610-3**

#### **(EDU 1610, SPE 1610) American Sign Language I (3 + 0)**

Prerequisite: minimum performance on the reading and writing pre-assessment placement test

This course will provide students with a basic understanding of American Sign Language and beginning conversational skills. Students will be introduced to Deaf culture. (General Studies-Level I, Communications)

### **MDL 1620-3**

#### **(SPE 1620) American Sign Language II (3 + 0)**

Prerequisite: SPE/MDL/EDU 1610 or permission of instructor

This course is a continuation of SPE 1610 emphasizing expressive language as well as increasing competence with receptive language skills. The course continues to build vocabulary and familiarity with the complex grammar (morphology and syntax) of this visual language. The Deaf experience and culture is integrated throughout.

### **MDL 1700-2 Foreign Languages for Travelers (2 + 0)**

This course presents the basics necessary when traveling in a foreign country. It gives the traveler a minimal command of the basic phrases, salutations, weather, numbers, time, statements of need and desire. May be repeated for credit as the course title changes.

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### **MDL 4960-3 Teaching Foreign Languages in the Secondary Schools (3 + 0)**

Prerequisites: EDS 3210 plus nine hours of intermediate and advanced courses in one foreign language, or permission of instructor

A course in methods and materials of instruction in modern foreign languages at the secondary level.

## **Mechanical Engineering Technology**

### **MET 1000-3 Materials and Manufacturing Technology (3 + 0)**

This is an introductory course in manufacturing and includes a study of production processes and materials and manufacturing processes in the fabrication of industrial products. It relates these to current national, social, industrial, and international issues and problems.

### **MET 1010-3 Manufacturing Processes (2 + 2)**

Basic fundamentals in the operation of machine tools are studied, including measuring tools, benchwork and layout, and tool grinding. The student performs various machine operations using the engine lathe, milling machine, vertical drills, and surface grinders.

### **MET1200-3**

#### **(CET 1200) Technical Drawing I (1 + 4)**

This is an introductory course in technical drawing. It covers the use of instruments, lettering, and geometric construction, and includes basic principles of descriptive geometry to solve problems involving the relative position of points, lines, and planes in space.

### **MET1210-3**

#### **(CET 1210) Technical Drawing II (1 + 4)**

Prerequisite: MET 1200 or CET 1200

This course is mechanical drawing using AutoCAD and manual drafting, and includes orthographics, axiometric and oblique projection, sectioning, dimensioning, and tolerancing. The student is also introduced to fluid power diagrams, piping weldments, and electrical and electronic diagrams. The final project is an assembly drawing of a mechanical component or subsystem.



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### **MET 1310-3 Principles of Quality Assurance (3 + 0)**

Prerequisite: intermediate algebra or equivalent

The course introduces the scope and function of quality assurance, including basic definitions, statistics, quality policy and objectives, manuals and procedures, concept of variation, inspection and sampling techniques, metrology process control, methods and the elements of reliability. Current TQM and ISO 9000 standards are reviewed.

### **MET 2150-3**

#### **(CET 2150) Mechanics I-Statics (3 + 0)**

Prerequisite: MTH 1410 (may be taken concurrently)

This course examines principles of statics, studies of vectors, their resolution and composition, forces and moments, force systems and their resultants. It also covers force systems in equilibrium, static friction, centroids, moments of inertia and radii of gyration of areas, shear and moment diagrams.

### **MET 2200-3 Materials of Engineering (2 + 2)**

Prerequisites: CHE 1100 or CHE 1200 (can be concurrent); MTH 1110 or MTH 1400

This lecture/laboratory course deals with basic properties of metals and non-metals, including the properties and behavior that govern their selection and design. Materials covered include ferrous and non-ferrous metals, composites, plastics, ceramics, glass, wood, rubber and adhesives.

### **MET 2220-3 Computer Aided Drafting for Engineering Technology (1 + 4)**

Prerequisite: permission of instructor

Students will work with a computerized engineering graphics system to produce mechanical drawings. This includes learning place and edit lines, arcs, points and polygons. The students will produce text, dimensions, inserts, sectioning, and hard copies.

### **MET 2310-3 Quality Assurance: Statistical Methods (3 + 0)**

Prerequisites: MET 1310 and MTH 1210

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Statistical analysis is studied using fundamental concepts and guidelines including the theory of probability, specifications and tolerances, sampling, life testing and the cost of quality decisions.

**MET 2400-3 Welding Processes (2 + 2)**

Prerequisites: MET 1010, MET 2200

This course introduces industrial welding processes. These include fusion welding with the oxyacetylene and arc processes, brazing of ferrous and nonferrous metals, oxyacetylene cutting, inert gas welding and the study of advanced welding techniques, e.g., lasers.

**MET 3000-4 Manufacturing Analysis (4 + 0)**

Prerequisites: MET 1010, MET 1310, MTH 1110 or MTH 1400

This course introduces the organizational and functional requirements for effective production. Tolerance charts and work piece control are used to plan the manufacturing sequence, select the preferred manufacturing equipment and the operational sequence.

**MET 3010-3 Fluid Flow I (2 + 2)**

Prerequisites: PHY 2020 and MTH 1120 or MTH 1400

This course is an introduction to incompressible internal flow with application to hydraulics. Fluid power is treated. Analysis are performed on steady and unsteady incompressible flow. Laboratory work includes the calibration and use of equipment to measure viscosity, specific gravity, pressure drop, flow profiles and flowrates using different hydraulic systems.

**MET 3020-3 Fluid Flow II (2 + 2)**

Prerequisites: MET 3010, MET 3110

Compressible internal flow is studied with application to industrial, pneumatic systems. Isentropic, isothermal, and flow of real gases are studied for nozzles, venturis, Pitot-tubes and pipe systems. Flow loss calculations are made using the Darcy-Weisbach and Fanno Line techniques. Compressors, valves, ejectors, diffusers, and pneumatic components are studied to design and cost air service systems. The laboratory work supports lectures using various gas flow systems, including an instrumented fan test rig.

**MET 3050-3 Heat Power (2 + 2)**

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Prerequisites: MTH 1410, PHY 2010

This energy conversion course combines lecture and laboratory for the manufacturing and industrial student. Emphasis is given to real processes, compression, expansion, heat transfer and to safety and efficiency of engines (stationary and mobile).

**MET 3070-3 Machine Design (2 + 2)**

Prerequisites: CET 3130 and MET 2200

The art of designing machines to accomplish specific purposes is studied. The student is introduced to the fundamental principles required to design the separate machine elements. The economics of design are stressed along with strength and safety considerations. The lab work uses selected software, e.g., ALGOR and AutoCAD, to produce the preferred design.

**MET 3100-3 N/C Computer Programming (2 + 2)**

Prerequisites: MET 1010 and MTH 1120

The theory is reviewed to control machines numerically. Algorithms are developed to program NC machines. N/C language and programming emphasizes APT, Compact II and suitable post-processors. The lab work includes operation of machines to demonstrate the programming skills.

**MET 3110-3****(CET 3150) Thermodynamics (3 + 0)**

Prerequisites: MTH 1410 and PHY 2010 or PHY 2311

The fundamental laws of thermodynamics are studied. Basic concepts of energy, the thermodynamic system, dimensions and units, and the ideal-gas equation of state are treated. Closed and open systems are studied. Heat engines are introduced. Reversible and irreversible processes are investigated.

**MET 3120-2 Heat Transfer (2 + 0)**

Prerequisites: PHY 2020 and MTH 1510 (or equivalent)

The three basic mechanisms of heat transmission are studied. Conduction, convection (free and forced), plus radiant transmission are treated for both steady-state and transient conditions. The transient study is aided by computer solutions.

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**MET 3130-3**

**(CET 3130) Mechanics of Materials (3 + 0)**

Prerequisites: CET 2150 or MET 2150, MTH 2410 (MTH 2410 may be taken concurrently)

Corequisite: MET 3135 or CET 3140

This course introduces the theory of strength of materials; stresses and strains in members subjected to tension, compression, and shear; flexural and shearing stresses beams; deflection of beams; column analysis; principal stresses; and introduction to indeterminate structures.

**MET 3135-1**

**(CET 3140) Mechanics of Materials-Laboratory (0 + 2)**

Prerequisites: CET 2150 or MET 2150 and COM 2610

Corequisite: CET 3130 or MET 3130

This course is a laboratory course to accompany the lecture course MET 3130-3, Mechanics of Materials. This laboratory course is structured to give the student experience in the use of laboratory equipment for conducting torsion, shear and bending tests on various materials.

**MET 3140-1 Heat Transfer Laboratory (0 + 2)**

Prerequisite: MET 3120 (concurrent enrollment preferred)

The laboratory course provides experimental results for various conduction and convection tests. The student selects and installs thermocouples, calibrates equipment, records transient and steady-state data, analyzes results, compares data to theoretical predictions and reports findings.

**MET 3160-3**

**(CET 3160) Mechanics II-Dynamics (3 + 0)**

Prerequisites: CET 2150 or MET 2150, MTH 2410 (MTH 2410 may be taken concurrently)

This course covers the principles of dynamics: kinematics, the study of the geometry of motion of a body without reference to the forces that cause the

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resulting motion; and kinetics, the study of the relation existing between the forces acting on the body, the mass of the body, and the motion of the body.

### **MET 3185-3**

#### **(CET 3180) Fluid Mechanics I (3 + 0)**

Prerequisite: CET 3160 or MET 3160

This course covers physical properties of fluids, hydrostatics, kinematics, energy considerations, momentum, and incompressible flow in pipes. Compressible fluid flow will also be studied.

### **MET 3210-4 Introduction to Computer Aided Engineering (4 + 0)**

Prerequisites: MTH 1120 or MTH 1400, either MET 1000 or CET 1100

This is an introductory course in computer aided engineering (CAE). The use of the computer as a tool for the solution of engineering technology problems is demonstrated. Included are high-level languages, spreadsheet techniques and computer modeling.

### **MET 3250-3 Tool Design and Production Tooling (2 + 2)**

Prerequisites: MET 2200 and MTH 1120

The course deals with production tooling requirements and tooling cost estimates. Design of tooling for turret lathes, automatic screw machines, multiple spindle lathes and production milling machines is treated.

### **MET 3300-3 Statistical Process Control (3 + 0)**

Prerequisites: MET 1310 and MET 3000

This course focuses on statistical process control with emphasis on process capability, troubleshooting, analysis of variance and hypothesis testing.

### **MET 3310-3 Thermodynamics II (2 + 2)**

Prerequisites: MET 3110 and MTH 2410

This, the second course in thermodynamics, deals with the consequence of the Second Law. The Tds equations are studied as are entropy and efficiencies of some heat power engines. Standard gas and vapor cycles are investigated. The laboratory work includes various calorimetry, gravimetric and volumetric analyzes, nozzles and internal combustion engine tests.

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### **MET 3320-3 Instrumentation Laboratory (2 + 2)**

Prerequisite: MET 3010

The student is introduced to standard mechanical tests and measurement techniques, e.g., installing thermocouples, strain gages, positioning static and total probes. ASME and ASTM test codes are studied, as are OSHA standards. Various physical property and system performance tests are set up, conducted and analyzed.

### **MET 3330-3 Robotics for Manufacturing (2 + 2)**

Prerequisites: MET 3100 and EET 2000

The course examines robotic components utilized in robots and automated systems. Manufacturing automation is analyzed as the robot is integrated with other flexible automation equipment. The focus is how to apply and design robotic integrated manufacturing systems. The laboratory work supplements the lectures using industrial robots for different applications.

### **MET 3410-3 Geometric Dimensioning and Tolerancing (2 + 2)**

Prerequisites: MET 1310

Dimensioning practices as defined by ASME National Standards (Y14.5M-1994) are studied. Tolerance of form, tolerances of position, datums, concentricity, symmetry and functional gaging concepts are also treated to produce low-cost and high-quality products.

### **MET 3510-3 Technical Supervision (3 + 0)**

Prerequisite: junior, senior standing

The tasks, responsibilities, and skills of first-line supervision in industry are studied, using case histories. Communication tools are identified for effective teamwork between engineers, technicians, and management. The course reviews the knowledge and skills needed to manage people and use of resources to produce a product on time and within budget.

### **MET 3550-3 Rockets and Stars: A Space Trek (2 + 2)**

Prerequisites: junior or senior standing and satisfaction of all Level I General Studies course requirements

In this course, the exciting vehicle of space is used to carry the student through basic theories and concepts of the natural sciences. Experts on

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outer-space and space exploration are guest lecturers. Students visit Gates Planetarium, NOAA, Martin-Marietta, etc. (General Studies-Level II, Natural Science)

### **MET 4000-3 Project Engineering (3 + 0)**

Prerequisite: senior standing

The student is introduced to the project or team effort. The need for planning, control, and communication is stressed. Critical path methods are used to develop schedules. Figure-of-merit methods are used to select preferred approaches/designs. Technical writing is stressed with an introduction to competitive proposal writing.

### **MET 4010-3 Advanced Manufacturing Technology (3 + 0)**

Prerequisites: MET 3000, MET 3330, EET 2000, satisfaction of all Level I and Level II General Studies course requirements and senior standing

The course includes micromonitor process control analysis, fiber optics technology, CMOS technology, ultraprecision-controlled devices with artificial intelligence systems, industrial robots, fiber optics and imagineering future applications. (Senior Experience)

### **MET 4040-3 Plant Layout (2 + 2)**

Prerequisites: MET 3000

Basic principles of plant layout to meet production needs are studied along with the application of materials handling devices to the process. Selection and arrangement of production machinery, product and process layout schemes, techniques of making layouts, and the balance and flexibility of operations are traded to select the preferred layout. Management's role is stressed.

### **MET 4070-3 Computer Aided Design (2 + 2)**

Prerequisites: MET 3070, either MET 3210 or MTH 1510, satisfaction of all Level I and Level II General Studies course requirements and senior standing

The student studies combined stresses, gearing, brakes, curved beams, etc., and undertakes the design of a complete machine. This is the second in the two-course machine design series. The analysis includes computer solutions. (Senior Experience)

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### **MET 4080-3 Computer Aided Manufacturing (2 + 2)**

Prerequisites: MET 3000, MET 3100, MTH 1510

Computer applications in configuration control, purchasing, vendor ratings, production control, inventory control and final product acceptance documentation are treated. The SmartCAM software is used.

### **MET 4240-3 Cost Estimating for Manufacturing (3 + 0)**

Prerequisites: MET 3000 and MTH 1510

Manufacturing costs, types of estimates, computer applications to cost estimating, cost estimating controls and cost-estimating procedures are studied. The ASME approach to realistic cost estimating is emphasized throughout the course.

### **MET 4280-3 Advanced Energy Technology (2 + 2)**

Prerequisites: MET 3120, PHY 2010, PHY 2020

Global energy flows, sources and uses of energy are studied. Biological energy and ecosystems are introduced from the viewpoint of the engineering technologist. Energy-related environment problems including air and thermal pollution plus radioactivity are treated.

### **MET 4480-3 Air Conditioning/Refrigeration (3 + 0)**

Prerequisite: MET 3120

Refrigeration cycles are studied. Operation and rating of system components are evaluated with heat flow in condensers, evaporators and cooling towers treated. The control of temperature and humidity, along with air-handling equipment and ducting, are studied.

## **Management**

### **MGT 1000-3 Introduction to Business (3 + 0)**

This course presents an introduction to business concepts that are further developed in the business core and in other courses pursued by business and economics majors. Also discussed are contemporary issues facing business. This course allows business students to develop a context for their studies and gives non-business students insights into the world of business.

### **MGT 2210-3 Legal Environment of Business I (3 + 0)**



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This course is designed to present the legal system as it applies to business. The course includes a discussion of fundamental concepts related to the nature and sources of law and to the resolution of disputes. Statutes, regulations and related government agencies that regulate employment, securities, trade and workplace decisions are analyzed, as well as the law of agency, contracts, organizations and torts. Ethical and international aspects of law are treated where appropriate.

### **MGT 2500-3 Small Business Management (3 + 0)**

Prerequisite: for non-business majors and business minors only

This course covers the principles of small business management and is designed for non-business majors only. Areas addressed include the positives and negatives of starting a small business, and particularly profiling the target customer, the competition, promotion, location, accounting, legal concerns, franchising and planning.

### **MGT 3000-3 Organizational Management (3 + 0)**

Prerequisites: junior standing or permission of instructor

This course examines applications of managerial functions and processes as applied to business and other organizations. Human and organizational behavior are discussed within the organizational environment; production techniques and systems in manufacturing and service, which are relevant to organizational management are covered. Ethical concepts and international implications are interwoven throughout.

### **MGT 3020-3 Fundamentals of Entrepreneurship (3 + 0)**

Prerequisite: MGT 3000

Fundamentals of Entrepreneurship identifies the management skills necessary for starting, buying, or working for a business with high growth potential. Areas addressed include the positives and negatives of starting a business, researching and developing a business concept; investigating market factors; and planning financial strategies. Students will evaluate business ideas and develop a written feasibility plan.

### **MGT 3210-3 Commercial and Corporate Law (3 + 0)**

Prerequisite: MGT 2210

This course includes a study of the fundamental legal concepts of property and a study of the Uniform Commercial Code as it applies to secured

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transactions, commercial paper and sales. Also examined are business organizations with major emphasis on partnerships and corporations, as well as bankruptcy and estates.

**MGT 3220-3 Legal Environment of Business II (3 + 0)**

Prerequisite: MGT 2210

This course provides the student with an understanding of the contemporary legal environment in which business must function. It focuses on the power of government to regulate business and the exercise of that power. Covered are ethics and laws relating to corporations and partnerships; securities, antitrust, employment discrimination, affirmative action, bankruptcy and administrative agencies.

**MGT 3530-3 Human Resources Management (3 + 0)**

Prerequisite: MGT 3000

This course provides the student with a broad overview of the contemporary issues, theories and principles used to effectively manage human resources in organizations. The psychological, social, legal and economic bases underlying the practices of human resource management are studied. Topics such as recruitment, selection, performance appraisal and compensation are analyzed.

**MGT 3550-3 Manufacturing and Service Management (3 + 0)**

Prerequisites: MGT 3000

This course is an introduction to the activities required to manufacture a product or create a service. Topics include work-force issues, bottlenecks, scheduling, quality assurance, materials control, and dealing with capacity and technological change. Manufacturing and service management in the international arena is contrasted with such management in contemporary American organizations.

**MGT 3820-3 International Business (3 + 0)**

Prerequisite: junior standing or permission of instructor

This is an overview course to enhance understanding of the international environment faced by businesses. The course is designed to assist students in becoming aware of the variety of international aspects and current events influencing management in today's global environment.

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### **MGT 4000-3 Management Decision Analysis (3 + 0)**

Prerequisite: MGT 3000

This course focuses on understanding and improving managerial decision making in formally structured organizations. Emphasis is placed on qualitative aspects of decision making in the context of individual, group, and organizational dynamics.

### **MGT 4020-3 Entrepreneurial Creativity (3 + 0)**

Prerequisite: MGT 3000

The course will focus on techniques for improving entrepreneurial creativity. Topics include techniques to enhance intuitive creative thinking within the business environment. The emphasis is on the development and implementation of innovative approaches to management and eliciting creative traits from the student to assist in the improvement of business venture planning and development.

### **MGT 4050-3 Purchasing and Contract Management (3 + 0)**

Prerequisites: MGT 3000

This course covers contemporary issues, concepts and techniques related to the location, analysis and monitoring of sources of goods, materials and services.

### **MGT 4420-3 Entrepreneurial Business Planning (3 + 0)**

Prerequisites: MGT 3020

This course requires the student to prepare a definitive, comprehensive business plan involving all aspects of a proposed new venture. To attract seed money and growth capital, the student plan must address probable start-up issues involving market analysis, competition, workforce and capacity planning. Emphasis is on financial viability and business plan packaging to secure financial seed money.

### **MGT 4530-3 Organizational Behavior (3 + 0)**

Prerequisites: MGT 3000

This course examines the behavior of individuals and small groups in organizational settings. The emphasis is on how organizations influence behavior in their quest for operating efficiency and effectiveness.

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### **MGT 4550-3 Project Management (3 + 0)**

Prerequisite: MGT 3000

This course investigates the concepts and applicability of matrix organizations and project management. The unique nature of the project management structure is also examined, including its emphasis on integrative decision making throughout a product's life cycle.

### **MGT 4610-3 Labor/Employee Relations (3 + 0)**

Prerequisites: MGT 3000

This course provides the student with an understanding of the development of labor law and its application to the management of employer/employee relations. Cases and illustrations are used to demonstrate collective bargaining and methods of securing industrial peace.

### **MGT 4620-3 Appraisal and Compensation (3 + 0)**

Prerequisite: MGT 3000

This course investigates methods of (1) identifying, measuring and evaluating performance; (2) using performance data as a basis for human resource management decisions; and, (3) designing compensation systems to attract, retain and motivate employees.

### **MGT 4640-3 Employee Training Development (3 + 0)**

Prerequisites: MGT 3000

This course focuses on the design, implementation and uses of training and development as a necessary part of increasing the value of employee and manager skills. Rapid organizational change precipitated by global competition, multicultural and multinational workers, and technology implementation require organizations to develop the human potential and careers of their employees at all levels.

### **MGT 4650-3 Managing Productivity (3 + 0)**

Prerequisites: MGT 3000

This course investigates methods and approaches that are used to improve productivity in organizations. The course focuses on the descriptions and evaluation of these various productivity improvement techniques, including

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the study of critical situational factors that are important in a manager's attempt to become efficient in resource usage.

**MGT 4830-3 Workforce Diversity (3 + 0)**

Prerequisites: satisfaction of Level I and Level II General Studies course requirements and senior standing

This course provides an integrated perspective on the management practices and systems that influence the development and contributions of individuals within a culturally diverse work force. The focus is on those practices that enhance an organization's effectiveness in the increasingly competitive domestic and global marketplace. (Multicultural; Senior Experience)

**MGT 4950-3 Strategic Management (3 + 0)**

Prerequisites: completion of all other business core courses and senior standing

This course presents the concepts and techniques of strategic management that allow the management of organizations of varying sizes to prosper in a competitive environment. Students are given the opportunity to apply both strategic management's analytical tools and knowledge gained from their business core courses to the domestic and global problems of organizations. (Senior Experience)

**Military Science (Army ROTC)****MILR 1011-2 Adventures in Leadership I\***

Introduction to the fundamentals of leadership, including an examination of developing leadership styles in many functional areas applicable to the Army. Covers selected military subjects. Written and oral presentations required.

**MILR 1021-2 Adventures in Leadership II\***

Continues the investigation of developing leadership styles. Examines the implementation of leadership for small organizations. Covers selected military subjects. Written and oral presentations required.

**MILR 2031-2 Methods of Leadership and Management I\***

Comprehensive review of contemporary leadership and management concepts, based on the Army's historical experiences, to include self and group motivation, personal and group attitudes, written and oral

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communicative skills, individual and group problem solving, understanding human needs and behavior and self-development. Covers selected military subjects. Written and oral presentations required.

**MILR 2041-2 Methods of Leadership and Management II\***

Continuation of MILR 2031, stressing practical application of leadership concepts. Students are required to be mid-level leaders within the cadet organization and receive written evaluations on their performance. Covers selected military subjects. Written and oral presentations required.

**MILR 3052-3 Military Operations and Training I**

Examines the organization and operations of tactical United States Army units with a focus at the platoon level. Various leadership styles and techniques are studied as they relate to small unit tactics. Basic military skills are introduced and students become familiar with actual military equipment. Potential hands-on training with various military systems. Covers selected military subjects. Written and oral presentations required.

**MILR 3062-3 Military Operations and Training II**

Focuses on the military decision-making process and the operations order. Exposes the student to tactical small unit leadership in a variety of environments. Covers advanced tactics and small unit weapons systems. Covers selective military subjects. Written and oral presentations required.

**MILR 4072-3 Officer Leadership and Development I\***

Examines theory, doctrine and procedures behind Army operations and focuses on the impact of the information revolution on the art of land warfare. Students also study principles of war and leadership through a detailed analysis of two historical battles. Other subjects examined include military training principles and procedures, ethics and law of war, counter-terrorism, joint operations, military counseling and writing skills. This course includes a leadership laboratory where cadets demonstrate the skills they have acquired from their previous military science training while serving in key leadership positions within the AROTC detachment.

**MILR 4082-3 Officer Leadership and Development II\***

The capstone course for the AROTC program. Prepares cadets for the challenge of junior officer leadership in the United States Army. Focuses on small unit leadership and dynamics and the principles and procedures behind Army day-to-day operations. This course concentrates on the military justice system, operational security, installation support mechanisms for soldiers

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and their families, logistics principles and procedures, and personnel performance evaluation concepts. Includes a leadership laboratory where cadets continue to gain leadership experience by managing day-to-day cadet activities.

\*These courses are taught at the Colorado School of Mines. Round trip transportation is provided. Please contact the Army ROTC office at the Department of Military Science at the University of Colorado, 303-492-6495.

## **Marketing**

### **MKT 2040-3 Managerial Communications (3 + 0)**

Prerequisites: ENG 1020 and SPE 1010

The various forms of managerial communications within a business environment are studied. Emphasis is placed on writing, listening, and speaking and on nonverbal and interpersonal communications with both internal and external audiences of a business. Students will apply the principles learned to both oral and written presentations. This course may not be used to meet requirements within the marketing major. (General Studies-Level II, Social Sciences)

### **MKT 3000-3 Principles of Marketing (3 + 0)**

Prerequisite: ECO 2020 and junior standing

This course is a comprehensive examination of the theory and practice of modern marketing. Of primary interest are the principles, concepts, and methods used to facilitate the exchange of goods and services among manufacturers, resellers and consumers. Students will be exposed to the basic decision areas of research, consumer behavior, product, price, distribution and promotion. Some attention is also given to marketing in international environments.

### **MKT 3010-3 Marketing Research (3 + 0)**

Prerequisites: MKT 3000 and CMS 2300 (or equivalent statistics course) and junior standing

This course will provide the marketing student with a systematic and objective approach to the search for and analysis of information relevant to the identification and solution of marketing problems.

### **MKT 3100-3 Retail Marketing (3 + 0)**

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Prerequisites: MKT 3000 and junior standing

This course will familiarize the student with fundamental retailing concepts and practices. Emphasis will be given to a strategic planning approach for developing and managing the retail marketing mix.

### **MKT 3110-3 Advertising Management (3 + 0)**

Prerequisites: MKT 3000 and junior standing

The principles of advertising are covered in this course from a business planning framework. The course surveys the advertising field from the marketing-advertising planning framework and discusses the targeting of advertising, types of media, media planning and buying, creative planning and the basic creative formats for each medium. Evaluation of advertising and producing efficient ads are discussed.

### **MKT 3120-3 Promotional Strategy (3 + 0)**

Prerequisites: MKT 3000, MKT 3110, and junior standing

Following the principles of Advertising Management, MKT 3110, this course provides an in-depth understanding and analysis of promotional strategies and tactics necessary in the management of marketing communications. Students design and execute actual advertising, sales promotion and publicity plans for a real business.

### **MKT 3140-3 Direct Marketing Management (3 + 0)**

Prerequisites: MKT 3000 and junior standing

This course will examine the concepts, strategies, and applications involved in direct marketing. Topics include the scope of direct marketing, launching direct marketing programs, planning and market segmentation, developing and managing products and services, promotion and multimedia plans, customer service and response and performance measures.

### **MKT 3160-3 Sales Management (3 + 0)**

Prerequisites: MKT 3000 and junior standing

This course will provide students with a comprehensive study of problems involved in managing a sales force. Areas covered include organizations, motivation and performance evaluation. Case analysis is emphasized.

### **MKT 3250-3 Personal Selling (3 + 0)**



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Prerequisite: MKT 3000

This course examines the environment of personal selling. Areas covered include communicating with diverse customers, ethical and legal considerations in personal selling and the elements of the personal selling process. The course has case orientation.

### **MKT 3300-3 Marketing of Services (3 + 0)**

Prerequisites: MKT 3000 and junior standing

This course will introduce students to the problems and issues that are unique to marketing a service. Current literature related to services marketing will be reviewed. Students will learn how to develop strategies to service firms.

### **MKT 3310-3 Consumer Behavior (3 + 0)**

Prerequisites: MKT 3000 and junior standing

This course analyzes the underlying theories and complex variables influencing consumers and their purchase decision making processes. Marketing strategy implications of consumer behavior concepts are offered.

### **MKT 3410-3 Marketing Logistics (3 + 0)**

Prerequisites: MKT 3000 and junior standing

This course focuses on the task of logistics as a marketing function. It provides the student with a review and understanding of the history, types of transportation, storage arrangements and optimization of the logistics operation. The evolution of marketing channels and their relationship to logistics and the marketing process is also covered in this course.

### **MKT 3500-3 Sports Marketing (3 + 0)**

Prerequisites: MKT 3000

A study of how the principles of marketing are applied in the field of sports. The course examines the marketing of sports, teams, athletes, etc., as well as the use of sports to market products through the use of sponsorships and promotional licensing.

### **MKT 3610-3 Business-to-Business Marketing (3 + 0)**

Prerequisites: MKT 3000 and junior standing

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In this course students will investigate the activities involved in marketing goods and services to businesses, institutions, resellers, and government, with primary emphasis on business-to-business marketing.

### **MKT 3710-3 International Marketing (3 + 0)**

Prerequisites: MKT 3000 and junior standing

The primary objective of this course is to introduce students to the issues and complexities involved in the international marketing process. This course will sensitize students to the economic, political and cultural differences among nations as they affect marketing; introduce students to the framework of organizations, laws and business practices as they affect marketing; and develop a student's ability to identify and evaluate marketing opportunities in the international marketplace.

### **MKT 3810-3 Electronic Marketing (3 + 0)**

Prerequisites: MKT 3000 and CMS 2010 or equivalent

This course is designed to introduce students to the cutting edge technologies that are necessary to perform effectively as marketing professionals. It includes the study and practice of marketing related uses of fax on demand, Internet, bulletin boards, data bases, CD-ROM and more to build future business.

### **MKT 4520-3 Seminar in Marketing Management (3 + 0)**

Prerequisites: 12 completed credit hours of marketing courses plus senior standing

This is the culminating final course required of all marketing minor students (and a marketing elective for marketing majors). In this final course, the student will develop and apply marketing strategies and policies in solution to problems related to the consumer and the business environment.

### **MKT 4560-3 Marketing Strategy (3 + 0)**

Prerequisites: MKT 3000, MKT 3010, MKT 3110, MKT 3310, and senior standing or permission of instructor

This is the culminating course for all marketing majors. This final course emphasizes the case approach to the study of marketing problems. Problem areas to be studied include market and profitability analysis, marketing planning, strategy and control. A spreadsheet package will be used.

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### **Mathematical Sciences**

Computer Science courses are listed under the prefix CSI and CSS and are offered through the Department of Mathematical and Computer Sciences.

#### **MTH 1080-3 Mathematical Modes of Thought (3 + 0)**

Prerequisite: one year of high school algebra or the equivalent and an appropriate score on the mathematics preassessment placement test

This course is an introduction to the methods of mathematics for nontechnical students. It includes problem-solving strategies, statistical reasoning and the nature of mathematics in the curriculum. (General Studies-Level I, Mathematics)

#### **MTH 1110-4 College Algebra (4 + 0)**

Prerequisite: an intermediate algebra course or one and one-half years of secondary school algebra or equivalent and appropriate score on the mathematics preassessment placement test

The topics covered include equations and inequalities, functions and graphs, exponents and logarithms, conic sections, linear systems, elementary probability, and the binomial theorem. Basic algebraic skills are essential as a prerequisite to this course. MTH 1110 is designed to prepare students for MTH 1120, College Trigonometry and MTH 1410, Calculus I. (General Studies-Level I, Mathematics)

#### **MTH 1120-3 College Trigonometry (3 + 0)**

Prerequisite: MTH 1110 or equivalent

The topics covered include trigonometric functions, equations and identities, solution of triangles and complex numbers.

#### **MTH 1210-4 Introduction to Statistics (4 + 0)**

Prerequisites: two years of high school algebra or equivalent and an appropriate score on the mathematics preassessment test

This course is an introduction to the principles and techniques of descriptive statistics, probability, regression analysis, and statistical inference (estimation and tests of hypotheses). Students will work with data on problems related to their own interest or field of study. Credit will not be given for both MTH 1210 and MTH 1230. (General Studies-Level I, Mathematics)

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### **MTH 1230-2 Introduction to Probability and Descriptive Statistics (2 + 0)**

Prerequisite: one year of high school algebra or equivalent

This course introduces the principles and techniques of probability, descriptive statistics and probability distributions. Students will be able to learn the subjects of estimation and inferential statistics in their chosen study. This course will not count toward graduation if MTH 1210 is also taken.

### **MTH 1310-4 Finite Mathematics for the Management and Social Sciences (4 + 0)**

Prerequisite: one and one-half years of high school algebra or equivalent and an appropriate score on the mathematics preassessment placement test

This course stresses applications in business and the social sciences. The topics covered include evaluation and graphing of functions, the geometry of straight lines, operations on matrices, solving systems of equations, and an introduction to set theory and probability theory. All sections will integrate the use of a graphing calculator into the course. A specific calculator will be required. (General Studies-Level I, Mathematics)

### **MTH 1320-3 Calculus for the Management and Social Sciences (3 + 0)**

Prerequisite: MTH 1310 (MTH 1110 or MTH 1400 will be accepted, if necessary.) Graphing calculator experience is expected.

This course is an introduction to calculus emphasizing applications in business and social sciences. Topics include differentiation, partial differentiation, indefinite and definite integration. All sections will integrate the use of a graphing calculator into the course. A specific calculator will be required.

### **MTH 1400-4 Precalculus Mathematics (4 + 0)**

Prerequisites: This course is designed for students who have had exposure to college algebra and trigonometry, but need a review of that material, usually in preparation for taking calculus.

This is a course covering the essentials of the algebraic and graphical properties of the polynomial, rational, exponential, logarithmic, and trigonometric functions. It is designed to prepare students for MTH 1410,

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Calculus I. All sections will integrate the use of a graphing calculator into the course. A specific calculator will be required.

### **MTH 1410-4 Calculus I (4 + 0)**

Prerequisites: MTH 1110 and MTH 1120 with grades of "C" or better, or MTH 1400 with a grade of "C" or better

This is a first course in calculus for science and engineering. The topics covered include derivatives of polynomials, trigonometric, exponential and logarithmic functions, applications of the derivative, the definite integral, and the fundamental theorem of calculus. All sections of the course will make integrated use of the software package *Mathematica* and/or a graphing calculator.

### **MTH 1510-4 Computer Programming: FORTRAN (4 + 0)**

Prerequisite: MTH 1120 or MTH 1400 or equivalent

This is a first course in computer programming for students in mathematics, science, or engineering, using the FORTRAN language. It includes an introduction to computer applications, program design, testing and debugging.

### **MTH 1610-4 Mathematical Concepts for Teachers in Pre-secondary Schools (4 + 0)**

Prerequisites: one and one-half years of high school algebra or equivalent, and an appropriate score on the mathematics preassessment test.

This course is designed to develop a sound background in the concepts underlying the presecondary mathematics curriculum. (General Studies-Level I, Mathematics)

### **MTH 2140-2 Computational Matrix Algebra (2 + 0)**

Prerequisite: MTH 1120 or MTH 1400 or equivalent

This course is an introduction to computational matrix algebra. The computations will be done by hand and by using the software package MATLAB. The course will include the following topics: matrix operations, determinants, solutions of linear systems of equations, and eigenvalues and eigenvectors. This course will not count toward graduation if MTH 3140 is also taken.

### **MTH 2410-4 Calculus II (4 + 0)**

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Prerequisite: MTH 1410 with a grade of "C" or better, or permission of instructor

This is a second course in calculus. The topics covered include techniques of integration, applications of the integral, introductory differential equations, and infinite series, including Taylor's series. All sections of the course will make integrated use of the software package *Mathematica* and/or a graphing calculator.

### **MTH 2420-4 Calculus III (4 + 0)**

Prerequisite: MTH 2410 with a grade of "C" or better, or permission of instructor

This course in the calculus of functions of more than one variable includes the following topics: partial derivatives, definite integrals over plane and solid regions, vectors and their applications, and Green's Theorem and its generalizations. All sections of the course will make integrated use of the software package *Mathematica* and/or a graphing calculator.

### **MTH 2530-2 Introduction to Mathematica (2 + 0)**

Prerequisite: MTH 2410 with a grade of "C" or better, or permission of instructor

This course is an introduction to the mathematical symbolic manipulation software package Mathematica and its use in solving problems from calculus and matrix algebra. This course also presents familiar concepts from calculus from a new perspective in order to strengthen the students' mathematical understanding.

### **MTH 3100-3 Introduction to Mathematical Proofs (3 + 0)**

Prerequisite: MTH 2410 with a grade of "C" or better, or permission of instructor

This course is designed to introduce the student to mathematical proofs and abstract mathematics with topics in the predicate calculus, induction, well-ordering principle, sets, relations, and functions.

### **MTH 3110-3 Abstract Algebra I (3 + 0)**

Prerequisite: MTH 3100 with a grade of "C" or better, or permission of instructor

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This course is a survey of the principle structures of modern abstract algebra, including introductions to the theories of groups, rings, integral domains, and fields. Each structure is introduced by examples, then basic properties are derived, and the appropriate applications are introduced.

### **MTH 3140-4 Linear Algebra (4 + 0)**

Prerequisite: MTH 3100 with a grade of "C" or better or CSI 3100 with a grade of "C" or better, or permission of instructor

This course is an introduction to the theory and application of vector spaces, linear transformations, matrix representations, eigenvalues, and eigenvectors. A software package will be used in this course.

### **MTH 3200-3 Biostatistics (3 + 0)**

Prerequisite: MTH 1110 or equivalent or permission of instructor

This is a course in the application of statistics to the biological and health sciences. The topics covered include descriptive statistics, statistical inference and methods.

### **MTH 3210-4 Probability and Statistics (4 + 0)**

Prerequisite: MTH 2410 with a grade of "C" or better, or permission of instructor

This is a course in the application and theory of the principles of probability and statistics in the sciences and engineering. It includes random variables, probability distributions, sampling, estimation, tests of hypotheses, and regression analysis.

### **MTH 3220-4 Design of Experiments (4 + 0)**

Prerequisite: MTH 3210 and either MTH 2140 or MTH 3140, all with grades of "C" or better, or permission of instructor

This is a course in the application and theory of statistical methods in the sciences and engineering. It includes analysis of variance, factorial experiments, and regression analysis.

### **MTH 3240-4 Environmental Statistics (4 + 0)**

Prerequisites: MTH 1110 and MTH 1210, or permission of instructor

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This is a course in inferential statistics, sampling techniques, and quality control as they relate to environmental issues. Students will work with data and problems related to the environmental science field of study. This course does not count toward a major in mathematics.

### **MTH 3250-4 Optimization Techniques I (4 + 0)**

Prerequisite: MTH 2140 or MTH 3140 with a grade of "C" or better, or permission of instructor

This course is an introduction to the mathematical programming techniques of operations research including linear programming and topics selected from integer programming, network analysis, dynamic programming, and game theory.

### **MTH 3260-4 Optimization Techniques II (4 + 0)**

Prerequisites: MTH 1410 and MTH 2140 or permission of instructor

This course is a study of mathematical planning techniques and probabilistic techniques of operations research. The topics covered will be selected from: simulation theory, decision theory, inventory theory, Markov chains, queuing theory, nonlinear programming, geometric programming, and economic analysis.

### **MTH 3420-4 Differential Equations (4 + 0)**

Prerequisite: MTH 2420 with a grade of "C" or better and knowledge of Mathematica, or permission of instructor; knowledge of Mathematica can be satisfied by MTH 2530 or both first and second semester calculus where Mathematica is used

This course includes a study of first, second, and higher order differential equations and systems giving solutions in closed form, by numerical approximations (including series), and through Laplace transforms. These techniques are applied to problems in the physical sciences and engineering.

### **MTH 3440-4 Partial Differential Equations (4 + 0)**

Prerequisite: MTH 3420 with a grade of "C" or better and knowledge of Mathematica, or permission of instructor; knowledge of Mathematica can be satisfied by MTH 2530 or both first and second semester calculus where Mathematica is used



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This is a course in partial differential equations and their solutions. It includes separation of variables techniques, Fourier series, and applications to the heat equation, the wave equation, and the potential equation.

**MTH 3470-3 Introduction to Discrete Mathematics and Modeling (3 + 0)**

Prerequisite: MTH 2410 with a grade of "C" or better, or permission of instructor

This is a problem-solving course. Topics will include enumeration, graph theory, difference equations, modeling, simulation, fractal geometry, and dynamical systems.

**MTH 3650-3 Foundations of Geometry (3 + 0)**

Prerequisite: MTH 3100 with a grade of "C" or better, or permission of instructor

This course will re-examine Euclidean geometry via Hilbert's axioms. This will allow a coherent approach to projective, Euclidean, non-Euclidean, and other related geometries. It is designed for prospective secondary teachers and others interested in modern geometric theories.

**MTH 4110-3 Abstract Algebra II (3 + 0)**

Prerequisite: MTH 3110 or permission of instructor

This course is a continuation of MTH 3110 with emphasis on an in-depth study of the properties of the structures introduced in MTH 3110. It includes Sylow theory, ideals and their properties, principal ideal domains, field extensions and finite fields.

**MTH 4150-3 Elementary Number Theory (3 + 0)**

Prerequisite: MTH 3100 or CSI 3100 or permission of instructor

This course introduces the basic concepts of number theory including the Euclidean algorithm, congruences, number-theoretic functions, and the Chinese remainder theorem.

**MTH 4210-4 Probability Theory (4 + 0)**

Prerequisites: MTH 3210 with a grade of "C" or better and senior standing, or permission of instructor

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This is a course in the theory of discrete and continuous probability with applications in the sciences and engineering. It includes sample spaces, combinatorial probability, random variables, sets of random variables and random sequences, conditional probability, expectation, and special distributions. It also includes beginning analysis of Markov chains. (Senior Experience)

### **MTH 4220-4 Stochastic Processes (4 + 0)**

Prerequisite: MTH 4210 with a grade of "C" or better, or permission of instructor

This course is an introduction to random processes with applications in the sciences and engineering. It includes examples and properties of stochastic processes, specifically, it includes discrete and continuous Markov processes, the exponential distribution and Poisson process, and other processes including queuing theory.

### **MTH 4230-4 Applied and Computational Statistics (4 + 0)**

Prerequisites: MTH 3220 with a grade of "C" or better, or permission of instructor

This course will cover advanced methods in statistics, including regression and multivariate analysis. Additional topics will be chosen from time series, survival analysis, sampling, bootstrap methods, Taguchi designs, or others chosen by the instructor. The students will use statistical computer packages.

### **MTH 4290-1 Senior Statistics Project (1 + 0)**

Prerequisites: MTH 3210, MTH 3220, MTH 4210, and permission of instructor

In this course, students will apply the statistical techniques covered in previous coursework to a real world situation. The students will write a report containing a description of the problem, statistical tools used, design of experiments, analysis, and results of the study.

### **MTH 4390-1 Mathematics Senior Seminar (1 + 0)**

Prerequisites: senior standing in mathematics and permission of instructor

This course will provide each student a closer examination of selected topics from the required core courses and from four upper-division mathematics courses selected from courses the student has taken. The course will

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concentrate on allowing the students to increase their theorem-proving and problem-solving skills.

**MTH 4410-4 Advanced Calculus I (4 + 0)**

Prerequisites: MTH 2420, MTH 3100, and senior standing, or permission of instructor

This is the first course of a two-semester sequence that includes a treatment of calculus with emphasis on proofs of theorems. The topics covered will be selected from: structure of the real number system, infinite series, vector calculus, applications of partial differentiation, integration, and function theory. (Senior Experience)

**MTH 4420-3 Advanced Calculus II (3 + 0)**

Prerequisite: MTH 4410 or permission of instructor

Continuation of MTH 4410.

**MTH 4450-4 Complex Variables (4 + 0)**

Prerequisite: MTH 2420 or permission of instructor

This course is an introduction to complex numbers, analytic functions, conformal mapping, contour integrals, and residues and poles.

**MTH 4480-4 Numerical Analysis I (4 + 0)**

Prerequisites: MTH 1510 or CSI 1300, MTH 3140 or MTH 2140, MTH 2410, all with a grade of "C" or better, senior standing, and knowledge of Mathematica, or permission of instructor; knowledge of Mathematica can be satisfied by MTH 2530 or both first and second semester calculus where Mathematica is used

This course includes numerical solutions of algebraic and transcendental equations, numerical differentiation and integration, numerical linear algebra, and polynomial interpolation. The use of a computer is an essential part of this course. (Senior Experience)

**MTH 4490-4 Numerical Analysis II (4 + 0)**

Prerequisites: MTH 3420 and MTH 4480 with grades of "C" or better, or permission of instructor

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This course includes approximation of functions, non-linear systems, numerical solutions of differential equations, and numerical techniques of integration.

### **MTH 4590-1 Applied Mathematics Senior Seminar (1 + 0)**

Prerequisite: MTH 3420, MTH 4480, and permission of instructor

This course will provide a closer examination of selected topics from the required courses in the Applied Mathematics emphasis, allows the students an opportunity to increase their problem-solving skills, and further exposes the students to mathematical software.

### **MTH 4600-1 Seminar in Problem Solving (1 + 0)**

Prerequisites: MTH 3100 or MTH 3420 or permission of instructor

This is a seminar in mathematical problem solving. Students will investigate factors of problem solving, such as belief systems, control mechanisms, heuristics and mathematical resources. This investigation will be carried out in the context of working on a collection of problems designed to illustrate these factors. Problems from the William Lowell Putnam National Mathematics Examination are included in this collection.

### **MTH 4640-4 History of Mathematics (4 + 0)**

Prerequisite: MTH 3110, MTH 3140, MTH 3210, MTH 3650, all with grades of "C" or better, senior standing, or permission of instructor

In this course, students will learn about the history of mathematics through the discussion of mathematical problems from ancient to modern times and the people who formulated or solved them. (Senior Experience)

### **MTH 4660-3 Topology (3 + 0)**

Prerequisite: MTH 3100 or permission of instructor

This course will include topological spaces, functions, mappings and homeomorphisms, continuity, compactness, and metric spaces.

## **Mathematics Teaching and Learning**

### **MTL 3620-4 Mathematics of the Secondary Curriculum (4 + 0)**

Prerequisites: MTH 3100 and at least 12 additional hours of upper division mathematics, all with grades of "C" or better, or permission of instructor

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This course, to be taken in the semester immediately prior to MTL 3630, uses standards-based curriculum materials as the focus for : (1) exploration of the central ideas of the mathematics curriculum in grades 7 through 12 and the connections among them, and (2) making explicit the connections between content covered in the mathematics courses required for the major and content taught in the school mathematics classrooms.

### **MTL 3630-3 Teaching Secondary Mathematics (3 + 0)**

Prerequisite: MTL 3620 or permission of instructor

Corequisites: MTL 3638, EDS 3210 and EDS 3222 or permission of instructor

This course examines teaching practice that supports conceptual understanding of mathematical ideas for all students in diverse classrooms. Prospective teachers who enroll in this course will analyze cases of teaching with particular attention to: planning for instruction; selecting and adapting curriculum materials; establishing classroom norms and expectations; fostering mathematical discourse; and assessing students' developing mathematical understanding. This course must be taken along with MTL 3638, EDS 3210 and EDS 3222 in the semester immediately prior to MTL 4698, Secondary Mathematics Student Teaching, and EDS 4290. At the end of this course, students will have the intermediate to advanced skills in the selection, operation, and classroom use of technologies including graphing calculators, computers, and the internet.

### **MTL 3638-2 Secondary Mathematics Field Experience (1 + 2)**

Prerequisite: MTL 3620 or permission of instructor

Corequisites: MTL 3630, EDS 3210 and EDS 3222

Prospective teachers enrolled in this course and EDS 3222 will spend at least 60 hours with a mentor teacher in a secondary mathematics classroom. During this time, prospective teachers will apply the mathematical knowledge base developed in the mathematics major and in MTL 3620, and the framework for teaching developed in MTL 3630, to the problems of practice that arise in one classroom of diverse learners. Through a series of assignments, prospective teachers will make and test conjectures about specific aspects of teaching practice.

### **MTL 4698-4 Secondary Mathematics Student Teaching (1 + 7.5)**

Prerequisites: completion of all mathematics coursework and all teacher education coursework required for licensure; department approval of all GPA requirements; completion of Application for Student Teaching

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Corequisite: EDS 4290

This course, in conjunction with EDS 4290, is a 13-week field experience with a skilled mathematics mentor teacher, supervised by an "MTL mentor," the official college supervisor, in an accredited secondary school. Prospective teachers who enroll in this course will, with the close and continual support of the mentor teacher, take on increasing responsibility for, and learn from, all aspects of the work of a full-time mathematics teacher. Prospective teachers and their mentors will participate in regular seminars conducted by the MTL mentor and other members of the Department of Mathematical and Computer Sciences.

## **Meteorology**

### **MTR 1400-3 Introduction to Meteorology (3 + 0)**

Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is an introductory course in the composition, structure and behavior of the atmosphere of the earth. Material covered includes high and low pressure systems, air masses, fronts, clouds, precipitation, stability, thunderstorms, tornadoes and hurricanes, as well as solar radiation, the greenhouse effect and seasons. (General Studies-Level II, Natural Science)

### **MTR 2400-4 Introduction to Atmospheric Science (3 + 2)**

Prerequisite: successful completion of Level I mathematics requirement

This course provides a quantitative approach to understanding fundamental concepts in meteorology. Topics include radiation, heat balance of the atmosphere, thermodynamics, cloud formation, horizontal motion, general circulation of the atmosphere, and weather systems. In the laboratory sessions, students are introduced to surface and upper-air charts, thermodynamic diagrams, weather codes, and weather imagery. This is the introductory course designed for majors and minors in meteorology. Students receiving credit for MTR 2400 may not subsequently receive credit for MTR 1400.

### **MTR 2410-3 Weather Observing Systems (2 +2)**

Prerequisite: MTR 2400

This course provides a survey of the instruments and instrument systems used in operational and research meteorology. The theory of instrument measurement and error, operating principles, and method of operation of

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surface and upper air sensors, as well as radar and satellites, will be presented. The lab component of the course will involve the theory, use, calibration, and maintenance of instruments and the analysis and interpretation of the observations.

**MTR 3100-3 Air Pollution (3 + 0)**

Prerequisite: GEG 1200 or MTR 2400

This course examines the causes and control of air pollution. Topics include pollutant sources and sinks, regional and global-scale pollution problems, monitoring and sampling techniques, regulatory control, meteorological influences, and indoor air quality.

**MTR 3400-4 Synoptic Meteorology (3 + 2)**

Prerequisites: MTR 2400

This course presents a descriptive approach to the structure and behavior of mid-latitude, synoptic-scale weather systems. Primary topics include the physics of synoptic-scale air motion, the role of synoptic weather systems in the general circulation, jet streams, airmasses, fronts, and the application of these to cyclones and anticyclones. Elementary quasi-geostrophic theory and weather forecasting are introduced.

**MTR 3420-3 Radar and Satellite Meteorology (3 + 0)**

Prerequisite: MTR 2410 and MTH 1120 or MTH 1400

This course provides a physically based and theoretically grounded study of the uses of radar and satellites and their application to various meteorological problems. Basic theories of radar and satellites will be applied to the interpretation and analysis of various radar and satellite products.

**MTR 3430-3 Atmospheric Thermodynamics (3 + 0)**

Prerequisites: MTH 2410, PHY 2311, PHY 2321 and MTR 3400

This course is the first in the sequence of calculus-based, theoretical meteorology courses. Emphasis is on classical thermodynamics and its application to atmospheric processes. Main topics include the equation of state, first law of thermodynamics, adiabatic processes of dry and moist air, stability, thermodynamic diagrams, thermodynamic variables, and convection.

**MTR 3440-3 Physical Meteorology (3 + 0)**

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Prerequisite: MTR 3430 and CHE 1800

This course is the second in the sequence of calculus-based, theoretical meteorology courses. Emphasis is on the application of classical physics to common processes in the atmosphere. Main topics include cloud and precipitation physics, atmospheric radiation, radiative transfer, lightning, optical phenomena and weather modification.

**MTR 3450-3 Dynamic Meteorology (3 + 0)**

Prerequisites: PHY 2331, PHY 2341, MTH 2420, and MTR 3430

Corequisite: MTH 3420

This course covers the fundamentals of fluid dynamics necessary for understanding large-scale atmospheric motions. The focus of the course is the development, derivation, and analysis of the laws of conservation of mass, momentum, and energy, as they apply to middle latitude, synoptic scale weather systems.

**MTR 3500-3 Hazardous Weather (3 + 0)**

Prerequisites: MTR 1400 or MTR 2400 and satisfaction of Level I General Studies course requirements

This course considers the nature and causes of hazardous weather, the predictability of hazardous weather events, and the economic, sociological, and psychological impact of these events. The strategies for the protection of life and property from hazardous weather are also considered. (General Studies-Level II, Natural Science)

**MTR 3710-3-6 Meteorological Cooperative Education I (0 + 9-18)**

Prerequisite: employment in a meteorological cooperative education position

This course involves educational work experience with a consulting meteorologist, meteorological firm, or government agency. The learning process is under supervision of meteorology faculty and the meteorologist at the firm or agency.

**MTR 3720-3-6 Meteorological Cooperative Education II (0 + 9-18)**

Prerequisites: employment in a meteorological cooperative education position, and MTR 3710



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This course involves educational work experience with a consulting meteorologist, meteorological firm, or government agency. The learning process is under supervision of meteorology faculty and the meteorologist at the firm or agency.

### **MTR 3730-3 Meteorological Cooperative Education III (0 + 9)**

Prerequisites: employment in a meteorological cooperative education position, and MTR 3720

This course involves educational work experience with a consulting meteorologist, meteorological firm or government agency. The learning process is under supervision of meteorology faculty and the meteorologist at the firm or agency.

### **MTR 4210-2 Forecasting Laboratory I (1 + 2)**

Prerequisite: MTR 3400

This is a laboratory course in which the principles of synoptic meteorology and weather computer technology are used in developing a weather forecast. Students are introduced to computerized weather data access, display, and analysis using meteorological software applications. Students learn to use surface and upper-air data, satellite and radar imagery, numerical model output, and other weather data in the preparation of weather forecasts. Principles of weather briefing and forecast decision making are also introduced.

### **MTR 4220-1 Forecasting Laboratory II (0 + 2)**

Prerequisite: MTR 4210

This course follows MTR 4210, Forecasting Laboratory I. Students practice the skills learned in MTR 4210 in a more independent setting, gaining experience in computerized data analysis, diagnosis, and weather forecasting.

### **MTR 4230-1 Forecasting Laboratory III (0 + 2)**

Prerequisite: MTR 4220

This lab allows students to continue to develop skills learned in MTR 4220, Forecasting Laboratory II, in an independent setting, gaining experience in computerized data analysis, diagnosis, and weather forecasting. Forecast format is that of the National Collegiate Weather Forecasting Contest, allowing students to participate in the national contest, if desired.

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### **MTR 4240-1 Forecasting Laboratory IV (0 + 2)**

Prerequisite: MTR 4230

This lab allows students to continue to develop skills learned in MTR 4230, Forecasting Laboratory III, in an independent setting, using advanced computerized data analysis and diagnosis to generate a weather forecast. Forecasts format is that of the National Collegiate Weather Forecasting Contest, so students may participate in the national contest, if desired. Students may also lead weekly departmental weather briefings.

### **MTR 4400-3 Advanced Synoptic Meteorology (2 + 2)**

Prerequisites: MTR 3450, MTH 3420 and PHY 2331

This course is a calculus-based examination of the three-dimensional structure of mid-latitude, synoptic-scale weather systems, emphasizing the application of kinematic and thermodynamic principles. Main topics include quasi-geostrophic theory, cyclone structure and evolution, diagnosis of vertical motion, jet streams, and frontogenesis. The lab component involves examples and exercises using computer-based analysis programs (e.g., GEMPAK and McIDAS) to diagnose current weather and case studies.

### **MTR 4410-3 Numerical Weather Prediction (3 + 0)**

Prerequisites: MTR 3450, MTH 3420, and MTH 1510 or an equivalent course in an approved programming language

This course presents the theoretical background to numerically modeling the atmosphere using the primitive equations. Current numerical models will be analyzed and finite-difference techniques will be applied to a simple computer model of the atmosphere developed during the course.

### **MTR 4440-3 Climatology (3 + 0)**

Prerequisite: MTR 3400

Climatology examines the characteristics, distributions, and causes of global and regional climate. Physical and dynamic mechanisms of climate are introduced. Spatial and temporal distributions of the main climate elements are studied, as are theories of past and future climates. A research paper involving climate data, statistical analysis and scientific method is required.

### **MTR 4500-3 Mesometeorology (2 + 2)**

Prerequisites: MTR 3400

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This is an advanced course in recognizing, understanding and forecasting mesoscale weather events (severe thunderstorms, hailstorms, tornadoes, downslope windstorms, flash floods, snowstorms, etc.) with emphasis on theory, analysis of weather data and forecast decision making.

### **MTR 4600-3 Senior Research Seminar (3 + 0)**

Prerequisites: MTR 3450 and MTR 4440

This is a senior-level capstone course required of all meteorology majors. Students will engage in a research project that involves the application of scientific methodology to meteorological or climatological data and problem solving. Experience will be gained in literature searches, problem statement, data handling, statistical analysis, data presentation, and presentation of results. Technical writing and oral presentation skills are emphasized. (Senior Experience)

## **Music**

### **MUS 1000-3 Introduction to Music (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

This course is nontechnical in nature and designed for students who are not music majors to develop competence in understanding music through guided listening. The elements and sources of music are studied, discussed and demonstrated. (General Studies-Level II, Arts and Letters)

### **MUS 1010-3 Fundamentals of Music Theory (3 + 0)**

This course covers the techniques of reading and writing music by teaching the fundamental principles of music notation and musical logic as they pertain to meter, rhythm, pitch, scales, key signatures, intervals, triads and the keyboard. The course is designed for non-music majors and for music majors with insufficient experience to qualify for MUS 1110. No previous training or experience in music is required.

### **MUS 1020-3 Basic Music Theory Skills (3 + 0)**

Prerequisite: MUS 1010 or a passing score on the Basic Music Theory Skills Placement Examination

This course develops music reading, writing and hearing skills through the application and practice of traditional sight-reading and ear-training techniques. The course is designed to prepare students for MUS 1110 and is

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restricted to students who can demonstrate the potential for developing musical hearing, reading and performing skills.

### **MUS 1110-3 Music Theory I (3 + 0)**

Prerequisite: a passing score on the Music Theory I Placement Examination (for more information on the Placement Examination, see the Placement Examination information sheet)

Corequisite: MUS 1120 and MUS 161B

The study of the melodic, harmonic, rhythmic, textural, and formal elements of music through analysis and composition. The development of reading and hearing skills as they relate to these elements. Covers diatonic music based on the triad, including tonic and dominant harmony, phrase structure and grouping, and melodic figuration and dissonance.

### **MUS 1120-1 Music Theory Lab I (0 + 2)**

Prerequisite: A passing score on Music Theory I Placement Examination (for more information on the Placement Examination, see the Placement Examination information sheet)

Corequisite: MUS 1110 and MUS 161B

The application of reading and hearing skills to the melodic, harmonic, rhythmic, textural, and formal elements of music through singing and the use of the keyboard. Covers diatonic music based on the triad.

### **MUS 1130-3 Music Theory II (3 + 0)**

Prerequisites: MUS 1110, MUS 1120, MUS 161B

Corequisite: MUS 1140, MUS 162B

Continuation of MUS 1110. Covers predominant chords and other diatonic chords, seventh chords, harmonic sequences and an introduction to tonicization and modulation..

### **MUS 1140-1 Music Theory Lab II (0 + 2)**

Prerequisites: MUS 1110, MUS 1120, MUS 161B

Corequisite: MUS 1130, MUS 162B

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Continuation of MUS 1120. Covers diatonic seventh chords and elementary chromaticism.

**MUS 1210-3 European Music Literature I (3 + 0)**

Prerequisite: MUS 1010 or MUS 1110

This course is intended as an introduction to the study of music for music majors. The primary area of study is the art music having its origins in Western Europe, including the historical background, structure, style and function of music in the Medieval, Renaissance, Baroque, Classical, Romantic and Modern eras. In addition, computer, library and research skills necessary for success in a college career will be acquired.

**MUS 1220-3 World Music Literature (3 + 0)**

Prerequisite: MUS 1210

Prerequisite or Corequisite: MUS 1020 or MUS 1120

This course is intended for music majors who have taken an introductory course in European Art Music. The class develops the understanding of musical style and aesthetic viewpoints of various cultures and the function that music fulfills in these diverse societies. The student will not only encounter new musical expressions but also the philosophies and world views that accompany them. To continue the growth of technical skills begun in European Music Literature, 15% of the lectures cover topics related to music computer technology.

**MUS 1400-3 Vocal Diction (3 + 0)**

An in-depth study of articulation and pronunciation in the English, French, German, and Italian languages. Texts of standard choral and art song literature will be used as the basis for the course.

**MUS 1600-1 Class Instruction for Non-Majors (1 + 0)**

Beginning class instruction in voice, piano, guitar, the standard band and orchestra instruments, improvisation, or score reading. Designed for non-music students with no experience reading music or previous training in the area being studied. May be repeated for credit in a different area of study.

**MUS 161A-1 Class Voice I (1 + 0)**

Class instruction in voice. Designed for students with little or no previous training.

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### **MUS 161B-1 Class Piano I (0 + 2)**

Prerequisites: MUS 1020, a passing score on the Music Theory I Placement Exam or permission of instructor

Class instruction in piano. Designed for students with little or no previous training.

### **MUS 161K-1 Class Guitar I (1 + 0)**

Class instruction in guitar. Designed for students with little or no previous training.

### **MUS 162A-1 Class Voice II (1 + 0)**

Prerequisite: MUS 161A

Continuation of MUS 161A.

### **MUS 162B-1 Class Piano II (0 + 2)**

Prerequisite: MUS 161B

Continuation of MUS 161B.

### **MUS 162K-1 Class Guitar II (1 + 0)**

Prerequisite: MUS 161K

Continuation of MUS 161K.

### **MUS 1650-1 Basic Music Technology (0 + 2)**

This course is intended to provide music majors with the technology skills necessary for their study of music. The following topics will be introduced: MIDI synthesizers, music notation software, sequencing software, e-mail, web authoring, and research tools on the web.

### **MUS 1710-2 Private Instruction I (1 + 0 + 0.5)**

Prerequisite: performance of successful private instruction audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

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Individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, or composition. At the end of the semester, the student must perform before a faculty jury committee. May be repeated for credit in a different area of study.

**MUS 1720-2 Private Instruction II (1 + 0 + 0.5)**

Prerequisite: MUS 1710

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 1710. May be repeated for credit in a different area of study.

**MUS 2020-3 Jazz Styles - America's Music (3 + 0)**

This class explores the many facets of American jazz through a survey of important events and major figures, including their effect on music through their actions and those of their followers. Students learn the tools of active listening by gaining a greater understanding of the musical elements through listening, reading, and performing. The course covers the history of African-American musical expression, including minstrelsy, ragtime, blues, New Orleans and classic jazz, bebop and related movements, the innovations of Coleman and Taylor, and the jazz of the present. (General Studies-Level II, Arts and Letters, Multicultural)

**MUS 2110-3 Music Theory III (3 + 0)**

Prerequisites: MUS 1130, MUS 1140, MUS 162B

Corequisite: MUS 2120

The study of advanced chromaticism leading to twentieth-century techniques, including music and compositional techniques of the Romantic period. Aural recognition of harmonic materials emphasized. Stylistic composition and analysis included.

**MUS 2120-1 Music Theory Lab III (0 + 2)**

Prerequisites: MUS 1130, MUS 1140, MUS 162B

Corequisite: MUS 2110

Training in sight-singing, rhythmic coordination, firm sense of pitch and aural recognition of the materials introduced in MUS 1130, Music Theory II.

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Practical theoretical skills applied to the keyboard. Keyboard realization of advanced chromatic harmony and impressionism.

**MUS 2130-3 Music Theory IV (3 + 0)**

Prerequisites: MUS 2110, MUS 2120

Corequisite: MUS 2140

A study of music from the post-Romantic era to the present. Emphasis is on the compositional techniques used in impressionism and the modern schools of twentieth-century composition.

**MUS 2140-1 Music Theory Lab IV (0 + 2)**

Prerequisites: MUS 2110, MUS 2120

Corequisite: MUS 2130

Continuation of MUS 2120. Covers highly chromatic and post-tonal music. Includes increased use of dissonance and complex rhythms.

**MUS 261B-1 Class Piano III (0 + 2)**

Prerequisite: MUS 162B

Continuation of MUS 162B.

**MUS 262B-1 Class Piano IV (0 + 2)**

Prerequisite: MUS 261B

Continuation of MUS 261B.

**MUS 2650-1 Intermediate Music Technology (0 + 2)**

Prerequisite: MUS 1650 or permission of instructor

This course is intended for music majors as a continuation of the skills development initiated in Basic Music Technology. The focus is on learning skills necessary for a career in music: music notation software for the creation of musical scores and parts, sequencing software for composing and transcribing, and the use of databases and spreadsheets to manage the varied activities of a music teacher.

**MUS 2710-2 Private Instruction III (1 + 0 + 0.5)**



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Prerequisite: MUS 1720

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 1720. May be repeated for credit in a different area of study.

### **MUS 2720-2 Private Instruction IV (1 + 0 + 0.5 )**

Prerequisite: MUS 2710

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 2710. May be repeated for credit in a different area of study.

### **MUS 2730-4 Performance III (1 + 0 + 1)**

Prerequisites: MUS 1720, MUS 1110, MUS 1120 and successful performance concentration audition

Corequisite: at least one other music course, and the major ensemble in the private instruction area being studied

Continuation of Music 1720. For students concentrating in performance only. May be repeated for credit in a different area of study.

### **MUS 2740-4 Performance IV (1 + 0 + 1)**

Prerequisite: MUS 2730 and successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of Music 2730. For students concentrating in performance only. May be repeated for credit in a different area of study.

### **MUS 2810-1 Ensemble (0 + 2.5)**

Prerequisite: permission of instructor

Study of large ensemble literature and performance techniques. Preparation of materials for concert performance. Also serves as a reading lab for conducting classes. May be repeated for credit.

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**MUS 3000-3 Musics of America (3 + 0)**

Prerequisites: MUS 1000 or MUS 1210

This course develops an understanding of the musical style, aesthetic viewpoints, and function that folk and popular music fulfills in the many cultures of the United States. The student will encounter not only new musical expressions and their history, but will also see how the musical products of these cultures have mixed to form new musical blends. This knowledge is synthesized in a final project in which the student investigates the music of an American ethnic minority culture. (General Studies-Level II, Arts and Letters, Multicultural)

**MUS 3040-3 Music and the Arts (3 + 0)**

Prerequisites: MUS 1000 or equivalent or permission of instructor; and satisfaction of General Studies Level I course requirements

This course is for music majors as well as non-music majors. Stylistic characteristics and the cultural climate of the important art epochs of the Western world are studied. Selected examples of music, painting, sculpture, architecture and literature will be examined to discover how the various arts respond to the same socio-cultural environment and how the arts relate to each other in the pattern of cultural history. (General Studies-Level II, Arts and Letters)

**MUS 3050-3 Musics of the World (3 + 0)**

Prerequisite: MUS 1000 or permission of instructor

This course develops an understanding of the diverse styles, aesthetic systems, and functions of music in the many cultures of the world and the United States. The student will not only encounter new musical expressions but also the history of diverse cultures and the world views that accompany them. (General Studies-Level II, Arts and Letters, Multicultural)

**MUS 3100-3 Counterpoint (3 + 0)**

Prerequisites: MUS 2110, MUS 2120

Study of modal vocal polyphony (Lassus, Palestrina) of the sixteenth century, and tonal contrapuntal textures of the eighteenth century (J.S. Bach). Composition in two to four independent voices. All contrapuntal techniques studied in historical perspective, including analysis of polyphonic forms.

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### **MUS 3150-3 Instrumental and Choral Scoring and Arranging (3 + 0)**

Prerequisites: MUS 2110, MUS 2120, MUS 3460, and MUS 3410 or MUS 3420 or MUS 3430 or MUS 3450

The study of the technical capabilities and notation of all the instruments and voices, individually and in ensembles. The transcription of instrumental and choral recordings and the composition of scores for band, jazz band, orchestra, and chorus.

### **MUS 3200-3 Topics in Music History and Literature: Variable Topics (3 + 0)**

Prerequisite: MUS 3220 or permission of instructor

A course designed to study the history and literature of a single musical style or medium. This course may be repeated for credit under different topics.

### **MUS 3210-3 Music History I (3 + 0)**

Prerequisite: MUS 1210 and MUS 1220

Prerequisite or Corequisite: MUS 2110

This course is intended for music majors. It comprises a survey of music history and musical style from the music of the ancient Greeks through the early eighteenth century in Europe.

### **MUS 3220-3 Music History II (3 + 0)**

Prerequisite: MUS 3210

Prerequisite or Corequisite: MUS 2130

This course is intended for music majors and comprises a survey of music history and musical style of the art music having its origins in Western Europe from mid-eighteenth century up to the present time.

### **MUS 3230-3 Composer Series: Variable Topics (3 + 0)**

Prerequisite: MUS 3220 or permission of instructor

A course designed to study the work of a single composer. This course may be repeated for credit under different topics.

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### **MUS 3410-2 String Techniques and Materials (2 + 0)**

Practical instruction in the technique of playing and teaching string instruments. Lecture periods are devoted to the organization of string programs in the public schools.

### **MUS 3420-2 Guitar Techniques and Materials (2 + 0)**

Practical instruction in the technique of playing and teaching the guitar.

### **MUS 3430-2 Woodwind Techniques and Materials (2 + 0)**

Practical instruction in playing woodwind instruments with emphasis on and acquainting students with techniques and materials necessary in teaching woodwinds.

### **MUS 3450-2 Brass Techniques and Materials (2 + 0)**

Practical beginning instruction in playing the brass instruments. Materials for beginning instrumental music in the public schools are studied.

### **MUS 3460-2 Percussion Techniques and Materials (2 + 0)**

The study of the methods and materials for teaching beginning percussion in the public schools. Includes practical instruction on the instruments.

### **MUS 3480-2 Marching Band Techniques and Materials (2 + 0)**

Prerequisite: sophomore standing

A study of the organization and administration of the marching band in the contemporary school setting. Particular attention is paid to the "Corps Style" program, contests in the Drum Corps International format, and the traditional precision drill and pageantry formats.

### **MUS 3510-2 Basic Conducting (2 + 0)**

Prerequisites: MUS 1130 and MUS 1140, plus one year of MUS 2810 or MUS 3810

Detailed fundamental conducting techniques of the basic patterns. Introduction to orchestral and choral scores.

### **MUS 3520-3 Choral Conducting and Literature (3 + 0)**

Prerequisites: MUS 3510 and MUS 262B

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The study of choral conducting techniques as they relate to studying, marking, reading, rehearsing and performing the score.

**MUS 3530-3 Instrumental Conducting and Literature (3 + 0)**

Prerequisites: MUS 3510 and MUS 262B

The study of instrumental conducting techniques as they relate to studying, marking, reading, rehearsing and performing the score.

**MUS 3650-2 Basic Techniques of Composition (2 + 0)**

Prerequisite: MUS 2110 or permission of instructor

The study of the craft of musical composition, from practical, theoretical, and aesthetic points of view, through the discussion and performance of individual writing projects. May be repeated for credit.

**MUS 3710-2 Private Instruction V (1 + 0 + 0.5)**

Prerequisite: MUS 2720

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 2720. May be repeated for credit in a different area of study.

**MUS 3720-2 Private Instruction VI (1 + 0 + 0.5)**

Prerequisite: MUS 3710

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 3710. A 30-minute junior recital may be substituted for the jury requirement for MUS 3720. May be repeated for credit in a different area of study.

**MUS 3730-4 Performance V (1 + 0 + 1)**

Prerequisites: MUS 2740, MUS 2110, MUS 2120, MUS 3210 and successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

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Continuation of MUS 2720. For students concentrating in performance only. May be repeated for credit in a different area of study.

### **MUS 3740-4 Performance VI (1 + 0 + 1)**

Prerequisites: MUS 3730, MUS 3220 and successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 3730. For students concentrating in performance only. May be repeated for credit in a different area of study.

### **MUS 3810-1 Ensemble (0 + 2.5)**

Prerequisites: junior standing and permission of instructor

Continuation of MUS 2810. Also serves as a reading lab for conducting classes. May be repeated for credit.

### **MUS 4110-2 Analysis of Music (2 + 0)**

Prerequisites: MUS 2110 and MUS 2120 and for senior experience credit, MUS 4510, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

Advanced analytical techniques applied to various musical styles. Traditional methods of analysis along with study of twentieth-century methods of analysis of Allen Forte, Edward Cone, and Paul Hindemith. Exceptional musical procedures examined. Contemporary music literature stressed. (Senior Experience)

### **MUS 4300-3 Fundamentals of Music Education (3 + 0)**

A course designed to investigate the basic principles of music education with emphasis on the aims and objectives, history, curriculum, philosophy, and career and alternative careers in the field of music education.

### **MUS 4310-2 Music Methods for Elementary School Classroom Teachers (2 + 0)**

Prerequisite: junior standing

This course will stress activities that elementary school classroom teachers can incorporate into their curriculum to develop musical concepts in the

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following areas: singing, listening, creative, rhythmic, instrumental and reading.

**MUS 4330-2 Elementary School Music Methods and Materials (2 + 0)**

Prerequisite: a passing score on the Piano Proficiency Examination

Corequisite: MUS 4390; supervised field experience: ESMMM

The course is designed for the future elementary school music specialist, or for the individuals who plan to teach music in the elementary school. Emphasis is given to contemporary teaching techniques and materials.

**MUS 4340-2 Secondary School Music Methods and Materials (2 + 0)**

Prerequisites: MUS 3520 or MUS 3530, satisfaction of Level I and Level II General Studies course requirements, and senior standing

Corequisites: MUS 4390; supervised field experience: SSMMM

Instruction and practice in the methods of teaching and techniques used in organizing and directing secondary school choral groups. (Senior Experience)

**MUS 4390-1 Supervised Field Experience (0 + 2)**

Prerequisites: satisfaction of Level I and Level II General Studies course requirements and senior standing

Corequisite: MUS 4330 or MUS 4340

This course must be taken concurrently with each of the following courses: MUS 4330 or MUS 4340. The course is designed to provide the music student with supervised experiences working with vocal and instrumental directors in area public schools. May be repeated for credit. (Senior Experience)

**MUS 4410-3 Piano Pedagogy (3 + 0)**

Prerequisite: MUS 324 or permission of instructor

Study of methods, literature, editions and techniques used in teaching piano privately and in groups.

**MUS 4420-3 Vocal Pedagogy (3 + 0)**

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Prerequisite: MUS 2710, Private Voice III

Open to juniors, seniors and advanced special students. A series of lectures, demonstrations, and discussions of the following and similar subjects: psychological and physiological factors in singing; approach to the pupil; methods of some famous teachers; interpretation and materials.

### **MUS 4510-2 Advanced Conducting (2 + 0)**

Prerequisites: MUS 3510, a passing score on the Piano Proficiency Examination, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

The study of advanced conducting techniques as they relate to studying, marking, reading, rehearsing and performing the score. Instrumental and choral music is studied. (Senior Experience)

### **MUS 4710-2 Private Instruction VII (1 + 0 + 0.5)**

Prerequisite: MUS 3720

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 3720. May be repeated for credit in a different area of study.

### **MUS 4720-2 Private Instruction VIII (1 + 0 + 0.5)**

Prerequisite: MUS 4710

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 4710. May be repeated for credit in a different area of study.

### **MUS 4730-4 Performance VII (1 + 0 + 1)**

Prerequisites: MUS 3740 or MUS 4720, and successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied



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Continuation of MUS 3740. For students concentrating in performance only. May be repeated for credit in a different area of study.

### **MUS 4740-4 Performance VIII (1 + 0 + 1)**

Prerequisite: MUS 4730; for senior experience credit, the student must also complete MUS 4790, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 4730. For students concentrating in performance only. A fifty-minute senior recital may be substituted for the jury requirement for MUS 4740. May be repeated for credit. (Senior Experience)

### **MUS 4790-1 Senior Recital (0 + 1)**

Prerequisites: MUS 4730 and for senior experience credit, the student must also complete MUS 4740, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course culminates in a solo performance of not less than 50 minutes length. It is required of all students concentrating in performance and must be approved by means of a recital hearing at least three weeks prior to the performance. (Senior Experience)

### **MUS 4950-3 Senior Project (3 + 0)**

Prerequisites: permission of the instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A seminar course in which the student prepares a senior project in the area of music theory, history, literature, composition, performance, or pedagogy. In addition to the project that will include a portfolio, the student will prepare a personal résumé. The course will also contain a comprehensive examination that will be used for program assessment purposes. (Senior Experience)

## **Native American Studies**

### **NAS 1000-3 Introduction to Native American Studies (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

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This course provides an opportunity to study the indigenous population of the United States. The primary focus of the course is on the historical, political, social, and economic relationship between Native Americans and how this culture is imbedded in the American culture. (General Studies-Level II, Social Sciences; Multicultural)

### **NAS 1930-3**

#### **(HIS 1930) History of Indigenous/Hispanic Americans (3 + 0)**

Prerequisites: minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

This course traces the development of indigenous and Indo-Hispanic civilization in North America from prehistoric origins to the present. (General Studies-Level II, Historical; Multicultural)

### **NAS 2100-3**

#### **(AAS 2100, CHS 2100, ICS 2100, WMS 2100) Women of Color (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment tests; one of the following: AAS 1010, CHS 1000, ICS 1000, NAS 1000, or WMS 1001; or permission of instructor

Though U.S. women share much in common, their differences are salient to a thorough understanding of all these women's experiences. Comparative analysis of these differences and their significance according to race, class and ethnicity are central to this course. The similarities among diverse groups of women will also be examined in order to better understand the complexity of women's lives. To focus the discussion, the course will cover work; families; sexuality and reproduction; religion; and politics. Credit will be granted for only one prefix: NAS or AAS or CHS or ICS or WMS. (General Studies-Level II, Social Sciences; Multicultural)

### **NAS 3200-3**

#### **(PSC 3200) Native American Politics (3 + 0)**

Prerequisites: NAS 1000 or PSC 1020 or permission of instructor, and completion of all Level I General Studies course requirements

The focus of this course is to examine Native Americans as political beings. Important questions and strategies for understanding the rise and expansion of native politicization will be identified. In general, the students will be able to explain why, how and when movements that demand change emerge. By

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comparing and contrasting the Native American experience with other powerless groups in society, the students should be able to trace these historical and political factors that led to a change in the movement of insurgency and analyze the specific actions by insurgents that inevitably resulted in the failure or success of those specific actions. Credit will be granted for only one prefix: NAS or PSC. (General Studies-Level II, Social Sciences; Multicultural)

### **NAS 3300-3**

#### **(GEG 3300, PSC 3300) Land Use, Culture and Conflict (3 + 0)**

Prerequisites: GEG 1400 or NAS 1000 or PSC 1010 and junior standing

This course is designed to introduce students to theories, approaches and controversies concerning use of land and resources on Indian Reservations. Reading and discussion will be directed toward questions related to differing views on land use and resources, how modernization impacts traditional settings, as well as treaties and governmental policies that govern Indian land. Case studies which illustrate current conflict/resolution issues between Native Americans and other actors such as federal, state and local governments will be examined. Credit will be granted for only one prefix. (General Studies - Level II, Social Science; Multicultural)

## **Nursing**

### **NUR 3100-4 Transitions in Nursing (4 + 0)**

Prerequisite: fulfillment of admission requirements to the baccalaureate registered nurse program. ANT 3480 or may be taken concurrently

This course introduces the registered nurse student to baccalaureate nursing education and facilitates the transition to the role of the baccalaureate nurse. The course focuses on expanding the nurse's assessment and nursing process skills through self assessment of learning needs and critical thinking skills, exploring the concept of health and introducing nursing theories and the conceptual basis for the practice of the profession. Aspects of professionalism such as the evolution of nursing education, the role of professional organizations and characteristics of autonomy and accountability will be discussed.

### **NUR 3110-3 Transitions in Nursing (3 + 0)**

Prerequisite: fulfillment of admission requirements for the baccalaureate nursing program

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Prerequisite or Corequisite: ANT 3480

This course is designed to introduce the registered nurse student to baccalaureate nursing education and to facilitate the transition to the role of the baccalaureate nurse. The course assists the registered nurse student in the exploration of social, political issues and health care trends that impact nursing. The nurse will reflect on nursing history, theory, education and professional and political foundations to predict the personal and professional changes necessary to position nursing for the future. This course will address the power that baccalaureate nursing education provides for career opportunities, professional enhancement and personal growth.

### **NUR 3400-2 Research: Nursing Critique (2 + 0)**

Prerequisite: statistics course prior to or concurrent

Corequisite: HES 3300

Students critique current nursing and/or health related research studies for applicability of the findings to nursing. Students identify researchable problems in nursing and have experiential learning with steps of the research process.

### **NUR 3510-1 Nursing Diagnosis (1 + 0)**

This course is designed to assist the student in writing nursing diagnostic statements according to national standards. The history and future of nursing diagnosis is examined.

### **NUR 3550-3 Leadership (3 + 0)**

Prerequisite: NUR 3110 or may be taken concurrently

This course is designed to foster the development of leadership roles and management skills of the nurse in working with individuals and groups striving for high-level wellness. These leadership roles and management skills also extend to other professionals and para-professionals in health care settings. Consideration is given to the influence of bio-psycho-social-cultural components in the leadership process. Emphasis is placed on the following leadership theories: role, group, dynamics, decision, change and communication.

### **NUR 3580-4 Management Issues in Nursing (4 + 0)**

Prerequisite: NUR 3100 or may be taken concurrently

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This course acquaints the nurse with basic nursing management knowledge and skills. The student examines the effects of ethics, laws, politics, power, communication, groups/teams, problem solving, decision making, conflict resolution, confrontation and negotiation on the role of nurse manager. Students apply managerial knowledge and skills to managing themselves and others effectively, including case management, within the context of the changing profession and health care delivery environment.

### **NUR 3650-2 Ethical Decision Making: Application to Nursing (2 + 0)**

Corequisite: HES 3650

This course assists registered nurses to apply ethical values, principles and theories to dilemmas in health care delivery and to adopt an appropriate decision making framework for their own clinical practice.

### **NUR 3700-4 Assessment (4 + 0)**

Prerequisite: licensed to practice registered nursing in Colorado or permission of instructor

This course assists the student in synthesizing prior interviewing skills, technical skills, and biological, psychological, sociological, cultural and spiritual knowledge with the new skills of performing a health assessment on clients throughout the life span. Using the nursing process, the students learn how to obtain a complete health history and perform a physical examination. Emphasis is placed on assessment of levels of wellness and differentiation of normal from abnormal findings across the life span.

### **NUR 3850-3 Clinical Teaching Methods (3 + 0)**

Prerequisite: NUR 3110 or may be taken concurrently

This course is designed to assist the student in developing knowledge and skills in clinical teaching. Emphasis is placed on the role of the nurse as a teacher. Principles of learning, content selection, strategies, teaching materials, and evaluation of teaching are considered. The relationship of perception, communication, and adaptation to teaching and learning are explored. Consideration is given to the biological, psychological, sociological, and cultural needs of clients as related to client teaching. The student will prepare a client-centered teaching module.

### **NUR 3880-3 Nurse Practice Acts (3+0)**

Prerequisite: NUR 3110

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This course is designed to analyze nurse practice acts from various states. The American Nurses Association's model of the nurse practice act will be used as a guide. The process of how changes occur in these statutory laws will be discussed.

### **NUR 4100-4 Critical Care Nursing (4 + 0)**

Prerequisites: NUR 3110 or may take NUR 3110 concurrently if nursing entry examinations have been completed satisfactorily. Statistics may also be taken concurrently

This course is designed for registered nurses in adult critical care settings desiring intermediate level knowledge and skills. The focus is on theoretical concepts, but clinical application will be addressed. The course is also designed as preparation for AACN certification examination. The student should have a basic knowledge in the following areas: anatomy and physiology, pathophysiology, critical, care, interpretation of electrocardiograms, cardiopulmonary resuscitation and pharmacology.

### **NUR 4200-3 Research (3 + 0)**

Prerequisites: NUR 3110 or permission of instructor. A statistics course prior to or concurrent with NUR 4200

This course introduces students to the research process and terminology and acquaints them with a variety of research methodologies for scientific inquiry. Students critique current research studies for applicability of the findings to their respective discipline. Students identify researchable problems in their discipline. Students have experiential learning with steps of the research process.

### **NUR 4300-4 Leadership (4 + 0)**

Prerequisite: NUR 3100 and NUR 3580

This course fosters an understanding of leadership behaviors exhibited in the process of influencing individuals, groups and communities. Emphasis is placed on leadership knowledge and skills to enable change for the nursing profession in a dynamic health care environment.

### **NUR 4400-4 Community Health Nursing (4 + 0)**

Prerequisites: ANT 3480, HES 3600, HES 3800, HES 3820 and 13 semester hours of upper-division nursing courses including NUR 3700 and NUR 3850

Corequisite: NUR 4410

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This course focuses on family theories and public health principles in analyzing the health of individuals, families, and communities as clients. The concepts of risk and prevention in high-level wellness are examined. Principles of ecology and health planning are used to analyze the relationship between environment and human health. Students will integrate the concepts/theories learned in 3000-level nursing courses.

### **NUR 4410-5 Community Health Nursing: Application (1.5 + 7)**

Corequisite: NUR 4400

This is a clinical experience within a community setting where the student applies knowledge of the nursing program's conceptual framework, public health sciences, family theories and nursing knowledge to make multidimensional assessments of an individual, family and community level of wellness. Nursing process is stressed as a problem solving approach within the internal and external environment of these clients. Community resources are identified and utilized to promote high-level wellness.

### **NUR 4500-2 Community Health Nursing I (2 + 0)**

Prerequisites: ANT 3480, HES 3300, HES 3650, NUR 3100, NUR 3650 and NUR 3400 or may be taken concurrently

This module facilitates learning by providing the tools for critically analyzing the principles of health promotion and disease prevention of families. Cultural diversity, ethics, legal and political responsibility of the nurse in leadership roles of advocate, change agent, collaborator, resource person and teacher are emphasized. The learner applies and synthesizes theories and models from the fields of education and nursing to community health nursing, including vulnerable populations and violence and family health risks.

### **NUR 4510-2 Community Health Nursing II (2 + 0)**

Prerequisite: NUR 4500 or may be taken concurrently

This module emphasizes lifestyle practices of health promotion and disease prevention as they impact on the health of diverse populations. Teaching-learning theories will be the foundation for health promotion and disease prevention activities. The student incorporates and synthesizes public and community health knowledge, principles of ethics, law, politics, epidemiology, ecology and risk level along with theories from the human and nursing sciences in solving diverse aggregate health needs and global issues.

### **NUR 4550-4 Community Health Nursing: Application (1 + 6)**

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Prerequisites: NUR 4510 or may be taken concurrently and NUR 3100, NUR 3580, NUR 3650, NUR 3700, HES 3650, HES 3750

Within a community setting, the student applies knowledge of public health science, as well as the human and nursing theories to make multidimensional assessments of clients' level of wellness. The nursing process, including cultural values and sensitivity, is used in working with clients. The nurse facilitates a client's self-determination and resource identification in moving toward higher levels of wellness through processes of health promotion and disease prevention and protection.

### **NUR 4760-2 Nursing Theories (2 + 0)**

Prerequisites: NUR 3110, NUR 3510, NUR 3550, and NUR 3850

This course is designed to assist students who plan to continue their education in graduate school. The course provides an introductory examination of nursing theory development and evaluation. Three theories of nursing are analyzed and applied.

### **NUR 4850-3 Nursing Process: Application (1 + 6)**

Prerequisites: all 3000-level nursing courses, NUR 4500, NUR 4510, NUR 4550, HES 3650, HES 3750 and NUR 4300 or may be taken concurrently

This course operationalizes concepts, theories and processes synthesized at the third and fourth level of the program. The student identifies a health problem of a self-selected client population and studies a nursing intervention strategy. The student spends one hour in seminar and six hours a week for 15 weeks in a clinical setting. (Senior Experience)

## **Parent Education**

### **PAR 2050-3 Introduction to Parent Education (3 + 0)**

This course is designed to introduce the student to the field of parent education, its history, scope, methods and issues are raised. The aim of the course is to provide a broad overview of the field, either as a basis for further coursework in parent education or as a brief introduction to an area of growing interest.

### **PAR 3070-3 Working with the Contemporary Family (3 + 0)**

Prerequisite: junior or senior standing



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This course is designed to familiarize students with the contemporary family: its structures, stresses, strengths and the legal and political issues that impact it are emphasized. Students will learn how parent educators can assist today's family and will be given the opportunity to apply course learnings to a specific family situation.

### **PAR 4890-3 Parent Education Field Placement (0 + 9)**

Prerequisites: PAR 2050 and PAR 3070

The field placement is individually designed to meet the needs of the student. It provides opportunities to plan, implement, and evaluate programs and projects in a parent education setting. The program director works closely with students and community agencies in setting up each field placement.

## **Philosophy**

### **Special Notes on 1000-Level Philosophy Courses**

All 1000-level courses are survey type designed to provide special familiarity with philosophy as a discipline. Some of the skills within this discipline that will be developed are identifying assumptions and implications, recognizing arguments, making distinctions and developing categories and formulating reasoned evidence. Any of these courses can be taken as a first course in philosophy.

### **PHI 1010-3 Introduction to Philosophy (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

This course constitutes a survey of the major areas of philosophical inquiry: the enduring questions and alternative answers that continue to be relevant to contemporary living. Problems covered include (1) free will vs. determinism, (2) mind and body, (3) God and religion, (4) knowledge, (5) ethics, and (6) society and politics. (General Studies-Level II, Arts and Letters)

### **PHI 1030-3 Ethics (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

This course provides a survey of alternative ethical viewpoints with a focus on the principles of moral action. The implications of these ethical positions

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for moral living will be emphasized through discussion of selected contemporary moral issues. Critical thinking about issues of right conduct will be developed. (General Studies-Level II, Arts and Letters)

**PHI 1040-3 Introduction to Eastern Religions (3 + 0)**

An introductory survey of the living traditions of some of the major faiths of the Orient, including Hinduism, Buddhism, Taoism, Confucianism, Shinto, and Zen.

**PHI 1050-3 Introduction to Western Religions (3 + 0)**

An introductory survey of the major religious traditions of the West with primary emphasis on the monotheistic faiths of Judaism, Christianity, and Islam.

**PHI 1110-3 Language, Logic and Persuasion (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment placement tests

An informal logic course providing a nontechnical introduction to critical thinking including the functions of language, the nature of arguments, common fallacies committed in communication, and the art of constructing clear and adequate definitions. (General Studies-Level I, Communications)

**PHI 1440-3 Logic (3 + 0)**

A general introduction to both informal and formal logic, the systems of rules for judging the validity of deductive and inductive arguments. Included are Aristotelian syllogistic deduction, modern truth-functional deduction, informal fallacies, inductive argumentation and scientific method.

**Special Notes on 2000-Level Courses**

All 2000-level courses are concept/skill-type courses. They are designed to develop such philosophic skills as critical thinking, recognition of issues, reasoned argumentation, knowledgeable judgments, clarity in expression and familiarity with philosophic resources. Although there are no formal prerequisites for 2000-level courses, it is recommended that a student have satisfactorily completed at least three hours of 1000-level philosophy.

**PHI 2040-3 Philosophy of Religion (3 + 0)**

A critical investigation of various dimensions and functions of religion (i.e., epistemological, metaphysical, ethical, esthetic, psychological, sociological,

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etc.) to provide a basis for discussion of humans as religious beings and the future of religion.

### **Special Notes on 3000-level courses**

All 3000-level courses are depth-probe type courses. They are designed to provide a rigorous, scholarly study of philosophic methods, problems and solutions. Primary sources will be used whenever possible and the student will be expected to do maximal work on her or his own, with direction from the instructor. PHI 3410, PHI 3610, and PHI 3810 are variable title courses. The subject matter of these courses is variable in order to provide an opportunity for in-depth study in a number of specific areas. The particular subject matter to be investigated in any given semester will be specified in the title as it appears in the class schedule. It is possible to repeat any of these courses for credit provided the subject matter is not the same as in a course previously taken for credit.

### **PHI 3000-3 History of Greek Philosophy (3 + 0)**

Prerequisites: PHI 1010 or permission of instructor; and satisfaction of Level I General Studies course requirements

This course is a study of the Greek philosophical tradition, its characteristic methods and theories. Special attention will be paid to the Pre-Socratics, Plato and Aristotle. Original sources will be read in translation. The dialectical progression and structure of Greek philosophical thinking will be recognized. (General Studies-Level II, Arts and Letters)

### **PHI 3020-3 History of Modern Philosophy (3 + 0)**

Prerequisites: PHI 1010 or permission of instructor; and satisfaction of Level I General Studies course requirements

This course is a study of modern philosophy from the Renaissance through Kant, showing the dialectical progression and fundamental problems and methods of that philosophy. Original sources will be read in translation. The systematic character of each philosophy will be stressed. (General Studies-Level II, Arts and Letters)

### **PHI 3120-3 Philosophy of Language (3 + 0)**

Prerequisites: PHI 1010 and three additional hours in philosophy or permission of the instructor

The philosophy of language can plausibly claim to be the most fundamental area of philosophy on the ground that the subject matter of philosophy is

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thought itself, and this can be studied only through language, its public vehicle. This course surveys major theories in this area.

**PHI 3150-3 Social and Political Philosophy (3 + 0)**

Prerequisite: two courses in philosophy or permission of instructor

Political and social philosophy is the study of people in societies with particular attention to the abstract claims they have on each other in the form of rights, duties, and privileges, and their demand for justice, equality, and freedom. This study may be concerned either with the conceptual structure of political discourse and with the kinds of arguments used to propose, defend, or criticize political institutions and policies.

**PHI 3180-3****(WMS 3180) Feminist Philosophy (3 + 0)**

Prerequisites: two philosophy courses and junior standing, or permission of the instructor

A course that examines traditional philosophical questions and positions in metaphysics, epistemology, and philosophy of science and explores how these questions and positions are rethought in twentieth-century Feminist Philosophy. Students will be expected to write a project paper in addition to other exams given in the course.

**PHI 3220-3 Personal Knowledge and Professional Growth (3 + 0)**

Prerequisite: upper-division standing or PHI 1010

A holistic course emphasizing the different dimensions of the self: physical, cognitive, emotional, ethical and spiritual. The course will examine different theories of the self and self-growth, and will work on integrating theory and practice of each approach in both one's personal and professional life.

**PHI 3320-3 Metaphysics (3 + 0)**

Prerequisite: six hours in philosophy

A comprehensive survey of metaphysics, dealing with problems of perennial and contemporary concern, such as the existence and nature of the soul, free will, God and substance.

**PHI 3330-3 Epistemology (3 + 0)**

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Prerequisites: two courses in philosophy or permission of instructor

The study of knowledge, concerned with what in general can be known, and how specific forms of knowledge can be obtained, including ordinary knowledge of people and things, and knowledge in such special fields as science, logic, metaphysics, religion, ethics and aesthetics.

### **PHI 3350-3 Ethical Theories (3 + 0)**

Prerequisite: six hours in philosophy

A comprehensive review of the central problems of normative ethics in Western philosophy and the major ethical theories of that tradition stretching from Plato in Ancient Greece to John Dewey and John Rawls in the twentieth century.

### **PHI 3360-3 Business Ethics (3 + 0)**

Prerequisites: junior standing or permission of instructor and satisfaction of Level I General Studies course requirements

This course examines the values and value conflicts inherent in the modern practices of the business world, investigates the major philosophical issues that challenge the conduct of ethics as a rational enterprise, exposes students to major traditions in philosophical normative ethics and applies those traditions to specific value conflicts in the business world. A critical thinking component is included in the course. (General Studies-Level II, Arts and Letters)

### **PHI 3390-3 Aesthetics (3 + 0)**

Prerequisites: two courses in philosophy or permission of instructor

A study of some basic concepts of aesthetics, focused either on a principal figure in the field (e.g. Plato, Kant,

Schiller, or Nietzsche) or on a particular set of fundamental issues in aesthetics, e.g. the ontology of the work of art; intentions and originality; form and expression; criticism, aesthetic education, etc. May include an emphasis on a particular art (e.g. poetry, drama, film, jazz, or painting).

### **PHI 3400-3 Philosophy of Science (3 + 0)**

Prerequisites: PHI 1010 and three additional hours in philosophy or permission of the instructor

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An advanced, critical examination of the concepts and problems involved in contemporary science. The nature of scientific method, explanation and law is covered. Physical, biological and psychosocial sciences are investigated.

**PHI 3410-3 Eastern Philosophy: (Variable Title) (3 + 0)**

Prerequisite: PHI 1040 or permission of the instructor

This course offers variable titles and will concentrate on in-depth study of particular ancient and modern schools and movements in Eastern philosophy such as: the philosophies of the Vedas and the Upanishads; Nyaya, Samkhya, Yoga, Vedanta; Charvak; Tantra; Jaina; Buddhist philosophies including Lamaism; the Chinese philosophies-Confucianism, Taoism, Maoism; and Japanese philosophies-Shinto and Zen.

**PHI 3430-3 Philosophy of Law (3 + 0)**

Prerequisite: one upper-division course in the humanities or social sciences, or one philosophy course; or permission of instructor

An examination of the origin of the individual and the idea of law in Greek thought and alterations of these notions in modern thought. The notion of interpretation in the law will be examined.

**PHI 3440-3 Symbolic Logic (3 + 0)**

Prerequisite: PHI 1440

A course in the techniques and metatheory of symbolic logic. Several alternative ways of establishing the validity of arguments will be covered and the conception of a symbolic logic will be pursued through the completeness theorem.

**PHI 3510-3 Phenomenology (3 + 0)**

Prerequisite: nine hours of philosophy including PHI 1010 or permission of instructor

A study of two major twentieth-century phenomenologists, Husserl and Heidegger. Different conceptions of what constitutes concrete experience will be examined.

**PHI 3530-3 Philosophy of Mind (3 + 0)**

Prerequisites: two courses in philosophy or permission of instructor

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A study of the nature of mental phenomena, both those that occur in other animals and those that make special human nature, including consciousness, thought, reason, perception, feeling and will.

### **PHI 3550-3 Existentialism (3 + 0)**

Prerequisites: PHI 1010 and three additional hours in philosophy or permission of instructor

The study of the existentialist movement of the nineteenth and twentieth centuries. Philosophers and writers include Kierkegaard, Nietzsche, Heidegger, Dostoevsky, Merleau-Ponty and Sartre. Problems covered include: the nature of Being; freedom and responsibility; the other and the body; the moral life; applications of existentialism to political life; and psychotherapeutic theory.

### **PHI 3610-3 Religious Studies: Variable Topics (3 + 0)**

Prerequisites: PHI 1010 and PHI 1050 or permission of the instructor

A variable title course designed to provide for an in-depth study of specific religious leaders and thinkers, such as Jesus, Paul, Augustine, Muhammad, Aquinas, Maimonides, Luther, Calvin, Tillich, Barth, Bonhoeffer and Buber. This course may be repeated for credit under different topics.

### **PHI 3810-3 Major Philosophers: Variable Topics (3 + 0)**

Prerequisites: PHI 1010 plus five hours of philosophy or permission of the instructor

An in-depth study of specific philosophers such as: Plato, Aristotle, Descartes, Hume, Kant, Hegel, Marx, Engels, Nietzsche, Kierkegaard, Heidegger, Sartre, Merleau-Ponty, Dewey, Wittgenstein and Whitehead. This course may be repeated for credit under different topics.

### **Special Notes on 4000-Level Courses**

All 4000-level courses are synthesis-type courses. They are designed to enable students to integrate their studies in philosophy and to formulate initially a position of their own. Sometimes 4000-level courses are team-taught by several members of the faculty so the student has access to their special expertise in a given field.

### **PHI 4050-3 Comparative Philosophies: Variable Topics (3 + 0)**

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Prerequisites: PHI 1010 and junior standing (nine additional hours in philosophy)

The works of two major philosophers will be analytically compared regarding basic assumptions, conclusions, arguments and contemporary relevance. The choice of comparisons is based on student's interest and instructor's judgment. This course may be repeated for credit under different topics.

### **PHI 4100-3 Senior Seminar (3 + 0)**

Prerequisites: a major in philosophy or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements and senior standing

A course centered on a key movement in Twentieth-Century Philosophy: Early Analytic Philosophy. The goal of this course is to allow the advanced student majoring in philosophy to engage in intensive study of this topic and the key philosophers who were part of this movement: Russell, Frege and Wittgenstein. Students will be required to produce a term paper suitable for entry into graduate-level work in philosophy. (Senior Experience)

## **Physics**

### **PHY 1000-4 Introduction to Physics (3 + 2)**

Prerequisites: minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests and high school algebra or equivalent

An introductory survey course for nonscientists that emphasizes the main concepts of physics, including mechanics, properties of matter, heat, sound, electricity, and magnetism, light, modern physics and relativity. The accompanying laboratory work is designed to illustrate the material discussed in the lectures. (General Studies-Level II, Natural Science)

### **PHY 1080-3 Physical Science for Teachers (2 + 2)**

Prerequisites: minimum performance standard scores on the reading, writing and mathematics preassessment placement tests and high school algebra or equivalent

A course designed to give prospective or active teachers of science a laboratory orientation to the processes and concepts involved in interpreting the physical surroundings.

### **PHY 1250-6 Physics of Aviation (5 + 2)**



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Prerequisite: MTH 1110, or MTH 1310, or equivalent; minimum performance standard scores on the reading, writing and mathematics preassessment placement tests

A one-semester course introducing the fundamentals of physics through technological applications, many of which are in aerospace science. Topics include measurement, motion, temperature, heat, properties of fluids, sound, oscillations, waves, and electricity and magnetism. (General Studies-Level II, Natural Science)

**PHY 2010-4 College Physics I (4 + 0)**

Prerequisites: concurrent registration with PHY 2030 is recommended. MTH 1120 or equivalent; and satisfaction of either ENG 1010 or the Level I Communication requirement; completion of PHY 2010 and PHY 2030 with a passing grade is required to receive General Studies credit

This first term of a one-year sequence covers the fundamentals of physics in a basic but thorough manner. The experimental aspects of physics are emphasized in the classroom and in the laboratory. Considerable time is devoted to problem-solving. Course content includes measurement, vectors, kinematics, dynamics, gravitation, energy, momentum, rotational motion, properties of matter, heat, thermal properties of matter, thermodynamics, wave motion and sound. The course is algebra-based. (General Studies-Level II, Natural Science)

**PHY 2020-4 College Physics II (4 + 0)**

Prerequisites: concurrent registration with PHY 2040 is recommended; PHY 2010 and satisfaction of either ENG 1010 or the Level I Communication requirement; completion of PHY 2020 and PHY 2040 with a passing grade is required to receive General Studies credit

A continuation of PHY 2010, the algebra-based introductory physics course. Topics include electricity and magnetism, electromechanical devices, AC circuits, geometrical and physical optics and modern physics. (General Studies-Level II, Natural Science)

**PHY 2030-1 College Physics I Laboratory (0 + 2)**

Prerequisites: concurrent registration with PHY 2010 is recommended; MTH 1120 or equivalent; and satisfaction of either ENG 1010 or the Level I Communication requirement; completion of PHY 2010 and PHY 2030 with a passing grade is required to receive General Studies credit

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The first semester of a one-year sequence in laboratory work that emphasizes experimental techniques, procedures and formal report writing. Laboratory experiments reinforce or extend the work of the lecture portion of the course. Emphasis is on mechanics. (General Studies-Level II, Natural Science)

**PHY 2040-1 College Physics II Laboratory (0 + 2)**

Prerequisites: concurrent registration with PHY 2020 is recommended and satisfaction of either ENG 1010 or the Level I Communication requirement; completion of PHY 2020 and PHY 2040 with a passing grade is required to receive General Studies credit

This course is the second semester of a one-year sequence in laboratory work that emphasizes experimental techniques, procedures and formal report writing. Laboratory experiments are selected to reinforce or extend the work of the lecture portion of the course. Emphasis is on electrical measurements, waves, optics and modern physics. (General Studies-Level II, Natural Science)

**PHY 2311-4 General Physics I (4 + 0)**

Prerequisites: concurrent registration with PHY 2321 is recommended. MTH 1410 and satisfaction of either ENG 1010 or the Level I Communication requirement; completion of PHY 2311 and PHY 2321 with a passing grade is required to receive General Studies credit

This first term of a one-year introductory calculus-based physics course is suitable for science and engineering students. Topics treated include mechanics, heat and thermodynamics, electricity and magnetism and light. (General Studies-Level II, Natural Science)

**PHY 2321-1 General Physics I Laboratory (0 + 2)**

Prerequisites: concurrent registration with PHY 2311 is recommended. Satisfaction of either ENG 1010 or the Level I Communication course requirement; completion of PHY 2311 and PHY 2321 with passing grades is required to receive General Studies credit

This first semester of a one-year sequence in laboratory work emphasizes experimental techniques, procedures and formal report writing. Laboratory experiments reinforce or extend the work of the lecture portion of the course. Emphasis is on mechanics. (General Studies-Level II, Natural Science)

**PHY 2331-4 General Physics II (4 + 0)**

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Prerequisites: concurrent registration with PHY 2341 is recommended. MTH 2410, PHY 2311 and PHY 2321, or equivalent and satisfaction of either ENG 1010 or the Level I Communication course requirement; completion of PHY 2331 and PHY 2341 with passing grades is required to receive General Studies credit

As a continuation of PHY 2311, this second term of a one-year introductory calculus-based physics course is suitable for science and engineering students. Topics treated include electricity and magnetism, circuits, electromagnetic oscillations and waves, physical optics and geometrical optics. (General Studies-Level II, Natural Science)

### **PHY 2341-1 General Physics II Laboratory (0 + 2)**

Prerequisite: concurrent registration with PHY 2331 is recommended. MTH 1410, PHY 2311 and PHY 2321 or equivalent and satisfaction of either ENG 1010 or the Level I communication course requirement; completion of PHY 2331 and 2341 with passing grades is required to receive General Studies credit

This second semester of a one-year sequence in laboratory work emphasizes experimental techniques, procedures and report writing. Laboratory experiments reinforce or extend the work of the lecture portion of the course. Emphasis is on electrical measurements, waves, optics and modern physics. (General Studies-Level II, Natural Science)

### **PHY 2811-3 Modern Physics (3 + 0)**

Prerequisites: MTH 2410 and one year of physics, or consent of instructor

An introductory course of the modern branch of physics covering the special theory of relativity, the basic phenomenology of atomic and nuclear physics and the basic concepts of quantum mechanics.

### **PHY 2820-3 Classical Physics (3 + 0)**

Prerequisites: MTH 2410 and one year of physics, or consent of instructor

Fundamental principles of mechanics, thermodynamics, electromagnetism and optics with an emphasis on understanding of physics through problem-solving.

### **PHY 3082-3 Energy and Environment (3 + 0)**

Prerequisites: PHY 1000 or PHY 2010 or equivalent

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A course in the supply and usage of energy resources and the environmental problems associated with our energy usage.

**PHY 3110-3 Methods of Mathematical Physics I (3 + 0)**

Prerequisite: MTH 2410

First term of a one-year sequence in mathematical techniques as applied to the equations of physics. Topics covered include vector analysis, coordinate systems, matrices and determinants, infinite series and infinite products, and complex analysis.

**PHY 3120-3 Methods of Mathematical Physics II (3 + 0)**

Prerequisite: PHY 3110

Continuation of PHY 3110. Topics include calculus of variations, special functions, integral transforms, linear vector space and tensor analysis.

**PHY 3211-4 Analytical Mechanics (4 + 0)**

Prerequisites: PHY 2820 and MTH 3420, or consent of instructor

A course in mechanics at the intermediate level. Topics include the Lagrange and Hamilton formulations, the two body problem, rigid body motion and small oscillations.

**PHY 3331-4 Electricity and Magnetism (4 + 0)**

Prerequisites: PHY 2820 and MTH 3420, or consent of instructor

A course in electricity and magnetism at the intermediate level. Topics include Maxwell's equations, boundary value problems, electrodynamics and relativity and electromagnetic radiation.

**PHY 3411-3 Thermal Physics (3 + 0)**

Prerequisite: PHY 2820 or consent of instructor

This course covers the basic concepts of the three related disciplines of thermodynamics, statistical mechanics and kinetic theory. The treatment includes both microscopic and macroscopic behavior of various classical and quantum systems of noninteracting particles and spins.

**PHY 3620-3 Sound and Music (3 + 0)**

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Prerequisite: satisfaction of Level I General Studies course requirements

This course will consider the basic nature of sound waves, the ear and hearing, musical instruments and acoustics. Although this course is mainly descriptive, some high school algebra will be used. (General Studies-Level II, Natural Science)

**PHY 3711-2 Physics Laboratory I (0 + 4)**

Prerequisite: PHY 2811

This is the first term of a one-year sequence in laboratory work at the junior level. Topics include electrical measurements, electrical measuring systems and experimental optics.

**PHY 3721-2 Physics Laboratory II (0 + 4)**

Prerequisite: PHY 2811

Continuation of PHY 3711.

**PHY 3810-3 Quantum Mechanics (3 + 0)**

Prerequisites: PHY 3211 and MTH 3420, or consent of instructor

A course in which both wave mechanics and matrix mechanics are developed and applied to selected problems in atomic physics.

**PHY 4510-3 Optics (3 + 0)**

Prerequisite: PHY 2820 or equivalent

A course that presents a contemporary treatment of selected topics in optics, such as matrix methods in geometrical optics, the Fourier analysis approach to physical optics and the interaction of light with matter.

**PHY 4610-2 Computational Physics I (2 + 0)**

Prerequisite: PHY 3120 or MTH 3440 or equivalent

This course provides an understanding of the role of the computer in modern theoretical physics by studying the simulation of physical phenomena in various fields of physics.

**PHY 4620-2 Computational Physics II (0 + 4)**

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Prerequisite: PHY 4610 and satisfaction of all Level I and Level II General Studies course requirements and senior standing

This is a course that assigns the student to an individual advanced, advanced level project modeling a physical phenomenon on the computer. (Senior Experience)

**PHY 4630-3 Continuum Physics (3 + 0)**

Prerequisite: PHY 3120 or equivalent

A course that presents the basic physical principles of fluid mechanics and elasticity together with their application to various problems in astronomy, physics, geology and medicine.

**PHY 4650-3 Solid State Physics (3 + 0)**

Prerequisites: PHY 3411 and PHY 3810 or consent of the instructor

A course in which the basic thermal and electrical properties of solids are explained in terms of the Brilluoin zone structures of phonons and electrons.

**PHY 4711-2 Advanced Physics I Laboratory (0 + 4)**

Prerequisite: PHY 3711

Laboratory work at the advanced undergraduate level. Individual student projects are emphasized.

**PHY 4721-2 Advanced Physics II Laboratory (0 + 4)**

Prerequisites: PHY 3711; satisfaction of all Level I and Level II General Studies course requirements and senior standing

This course focuses on individual student projects in experimental physics at the advanced undergraduate level. (Senior Experience)

**PHY 4810-3 Atomic and Molecular Structure (3 + 0)**

Prerequisite: PHY 3810

A course in which quantum mechanical methods are applied to problems in atomic and molecular physics, such as the one-electron atom, atomic and molecular spectra and particle scattering.

**PHY 4820-3 Subatomic Physics (3 + 0)**

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Prerequisite: PHY 4810

An introductory treatment of the various concepts and models used to describe nuclear and high energy particle phenomena.

### **PHY 4920-1 Physics Senior Seminar (1 + 0)**

Prerequisites: PHY 4711 or consent of instructor; satisfaction of all Level I and Level II General Studies course requirements and senior standing

Corequisite: PHY 4620 or PHY 4721 or consent of instructor

This is a course in which graduating seniors report on individual projects to their peers and the department faculty. (Senior Experience)

## **Political Science**

### **PSC 1010-3 American National Government (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

This course explores the American political process with emphasis on the federal government: how it is organized, formal and informal sources of power and influence, political attitudes and behavior of American citizens, civil rights, constitutional evolution, factors of change and stability. (General Studies-Level II, Social Sciences)

### **PSC 1020-3 Political Systems and Ideas (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

The course provides ways of looking at political society, the often unsettling realities of politics, and political science as a discipline; searches for the means of understanding, acting, and living in an increasingly complex and interdependent world of decision making and problem solving; and emphasizes the basic ideas, structures and issues of modern political systems. (General Studies-Level II, Social Sciences)

### **PSC 2020-3 Conducting Political Analysis (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

This course inquires into research methods and deals with how we organize knowledge in the study of politics. It also emphasizes a multidisciplinary

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approach to political analysis by concentrating on philosophy of science, social science methodology and historiography.

**PSC 2030-3 Politics in the Media (3 + 0)**

This course is an analysis of current political issues as portrayed in the daily and weekly press and broadcast media. It is designed to provide students with the background and perspective needed for an informed understanding of the often complex and confusing issues confronting the political system.

**PSC 2100-3 Political Socialization (3 + 0)**

Prerequisite: satisfaction of Level I General Studies requirement

This course examines the set of social processes by which populations are trained to passivity, obedience, acquiescence and loyalty, in short, how citizens are socialized to become political beings. We shall explore the field of political socialization and emphasize the close relationships between processes that "engrave laws in the hearts of citizens" and the larger social order. (General Studies-Level II, Social Science)

**PSC 2200-3****(AAS 2200) Politics and Black People (3 + 0)**

Prerequisites: satisfaction of Level I Mathematics requirement, and either ENG 1010 or the Level I Communication course requirement

Black politics is examined as a vehicle and potential in decision making for positive change for black people in this country. The realities and the challenges, both historical and current, are emphasized. Credit will be granted for only one prefix: PSC or AAS. (General Studies-Level II, Social Sciences; Multicultural)

**PSC 3000-3 American State and Local Government (3 + 0)**

Prerequisite: PSC 1010 or permission of instructor

The organization, powers, functions, and practical workings of state, county, town and city governments of the United States. Special attention is given to federal-state relations and to the Colorado state government and constitution.

**PSC 3020-3 Introduction to Public Administration (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor



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An introduction to public management as a field of study and professional practice. Topics include the political environment of public administration, organization theory, decision-making, budgetary processes, intergovernmental relations, and ethics and professionalism in public service.

**PSC 3030-3 Introduction to International Relations (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

Examination of the modern nation-state in its relations with others: diplomacy, nationalism, power and influence, sources of conflict and cooperation. Reviews theoretical attempts to understand international behavior.

**PSC 3050-3 Political Theory (3 + 0)**

Prerequisite: satisfaction of Level I General Studies course requirements

Examination of Western political ideas and ideals from Plato through Marx: the hopes and fears, questions and responses, dreams and realities about the state, humanity, justice and politics. An opportunity to relate historical political thinking to modern problems. (General Studies-Level II, Arts and Letters)

**PSC 3090-3 Current Topics in Political Science (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

An in-depth study of an important topic of political science. Topics vary and the course may be repeated for credit as the topics change.

**PSC 3100-3 American Political Parties and Elections and Voting Behavior (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

The nature and functions of parties in the U.S. political system: their membership, beliefs and internal organization. Examines campaign methods and financing, and analyzes the American voter and non-voter, based on the latest research findings.

**PSC 3120-3 American Constitutional Law (3 + 0)**

Prerequisite: PSC 1010 and satisfaction of Level I General Studies requirement

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This course examines how the basic principles and doctrines of the Constitution have been interpreted, altered and applied in response to the ever-changing social, economic and political conditions in the United States. (General Studies-Level II, Social Science)

### **PSC 3130-3 The American Presidency (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

The powers and functions of the presidency as the office has changed and evolved, with emphasis on recent experience. Explores styles of presidential leadership, relations with Congress, the bureaucracy, the media, the group influence and constituent relations. Examines internal organization, traditions, power structure and reform.

### **PSC 3140-3 The American Congress and Legislative Process (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

The powers and functions of the legislative branch of government; relations with the executive branch; interest group influence; constituent relations. Examines internal organization, traditions, power structure and reform.

### **PSC 3160-1-3 Readings in Political Science and Public Administration (1-3 + 0)**

This course provides the opportunity for the student to explore important writings in a selected subject area of political science. A self-paced course under the guidance of the instructor. Topics vary and the course may be repeated for credit.

### **PSC 3200-3**

### **(NAS 3200) Native American Politics (3 + 0)**

Prerequisites: NAS 1000 or PSC 1020 or permission of instructor, and completion of all Level I General Studies course requirements

The focus of this course is to examine Native Americans as political beings. Important questions and strategies for understanding the rise and expansion of Native politicization will be identified. In general, the students will be able to explain why, how and when movements that demand change emerge. By comparing and contrasting the Native American experience with other powerless groups in society, the students should be able to trace these historical and political factors that led to a change in the movement of insurgency and analyze the specific actions by insurgents that inevitably

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resulted in the failure or success of those specific actions. (General Studies-Level II, Social Sciences; Multicultural)

### **PSC 3220-3 Public Policy (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

An analysis of the ongoing development of government policy, covering the main stages of the policy process: agenda building, formulation, authorization, implementation and evaluation.

### **PSC 3230-3 Environmental Politics (3 + 0)**

Prerequisites: PSC 1010, PSC 1020 or permission of instructor

The class will explore the political and administrative issues in the field of environmental politics. Environmental areas to be reviewed will include environmental theory, organizations, political behavior, assessment, law and decision-making.

### **PSC 3240-3 Intergovernmental Relations (3 + 0)**

Prerequisite: PSC 1010 or permission of instructor

Analysis of the functioning of the American federal system and the changing forms of local/state/federal relationships. Surveys recent efforts to develop theories relating to the administrative processes of intergovernmental relations.

### **PSC 3260-3 Politics of Budgeting (3 + 0)**

Prerequisite: PSC 3020 or permission of instructor

Budget systems analyzed with an evaluation of administrative techniques of budget control. The legal, social and political aspects of governmental budgets and the budgetary process.

### **PSC 3280-3 Public Personnel Administration (3 + 0)**

Prerequisite: PSC 3020 or permission of instructor

The analysis of managing, motivating and developing people in public organizations. Surveys the main elements of personnel administration such as selection, evaluation, promotion, training, productivity and job classification.

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**PSC 3300-3**

**(GEG 3300, NAS 3300) Land Use, Culture and Conflict (3 + 0)**

Prerequisites: GEG 1400 or NAS 1000 or PSC 1010 and junior standing

This course is designed to introduce students to theories, approaches and controversies concerning use of land and resources on Indian Reservations. Reading and discussion will be directed toward questions related to differing views on land use and resources, how modernization impacts traditional settings, as well as treaties and governmental policies that govern Indian land. Case studies which illustrate current conflict/resolution issues between Native Americans and other actors such as federal, state and local governments will be examined. Credit will be granted for only one prefix. (General Studies - Level II, Social Science; Multicultural)

**PSC 3310-3 American Foreign and Military Policy (3 + 0)**

Prerequisite: PSC 1010 or permission of instructor

The main trends of U.S. foreign and military policy from the end of World War II to the present, with an exploration of the motives and perceptions behind recent policies and actions. Studies the policymaking process and the relationship between foreign policy and domestic policies.

**PSC 3320-3 International Law (3 + 0)**

Prerequisite: PSC 3030 or permission of instructor

Past and present efforts of nations to regulate their relations and resolve conflicts through the use of existing legal doctrine, or the development of new law in response to new problems, such as the uses of outer space and ocean resources.

**PSC 3330-3 International Organizations (3 + 0)**

Prerequisite: PSC 3030 or permission of instructor

The theory and practice of international organizations, with emphasis on the United Nations. Past and present attempts of nations to solve problems or achieve security by means of regional and global organizations, such as the Common Market and the World Bank.

**PSC 3400-3**

**(AAS 3400) Contemporary Africa (3 + 0)**

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This course focuses on the political, social and economic realities of postindependence Africa. Africa's relations with the outside world and the question of South Africa are also examined in this course. Credit will be granted for only one prefix: PSC or AAS.

**PSC 3520-3 American Political Thought (3 + 0)**

Prerequisite: PSC 1010 or permission of instructor

Is there an American political philosophy? A study of some of the significant individuals and ideas that have shaped and are shaping political thinking in America.

**PSC 3600-3 Comparative Politics Area Studies (3 + 0)**

Prerequisite: PSC 1010 or PSC 1020 or permission of instructor

A thorough examination of the political system or systems of a selected foreign nation or geographical region, such as the Middle East, Western Europe, or Latin America. Subject matter varies and the course may be repeated for credit.

**PSC 3630-3 Latin American Politics (3 + 0)**

Prerequisites: PSC 1010 or 1020 and satisfaction of Level I General Studies requirement

This course will provide the student with the core concepts used within the social science literature in Latin American countries; will broaden intellectual horizons beyond United States borders to question ethnocentrism regarding what is means to be developed; and examine the causes, processes and outcomes of revolution and social conflict. (General Studies-Level II, Social Science)

**PSC 3910-3****(AAS 3910) African Politics and Government (3 + 0)**

Prerequisite: AAS 1130, AAS 2300, or permission of instructor

This course will survey present-day political systems in Africa and examine factors, internal and external, that have contributed to their emergence. Credit will be granted for only one prefix:PSC or AAS.

**PSC 4020-3 Special Studies (3 + 0)**

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Prerequisites: PSC 1010 and PSC 1020, and satisfaction of all Level I and II General Studies course requirements, and senior standing

This course is an in-depth examination of a selected subject within the overall field of political science. It provides students with an opportunity to delve into a subject that the instructor has a special interest or knowledge, but is not specifically covered in any of the existing courses. Course content will vary and may be variable depending on subject. The course may be repeated for credit as the subject matter changes. (Senior Experience)

### **PSC 4100-3-12 Legislative Internship (0 + 9-36)**

Prerequisite: permission of Political Science Department

Students are placed in legislative (state or national) staff positions or in campaign offices according to their own interests and goals. The number of credits earned varies according to the amount of time on the job, e.g., a work load of 20 hours per week would earn six credits. Students must contact the Political Science Department before enrolling for internship.

### **PSC 4120-3-12 Government Agency Internship (0 + 9-36)**

Prerequisite: permission of Political Science Department

Students are placed in government (state or national) agency internships according to their own interests and goals. The number of credits earned varies according to the amount of time on the job, e.g., a workload of 20 hours per week would earn six credits. Students must contact the Political Science Department before enrolling for internship.

## **PSC 4400-3**

### **(AAS 4400) South African Politics (3 + 0)**

Prerequisite: PSC 1010 or AAS 1020 or permission of instructor

An in-depth study of the South African political system, its historical development and contemporary operation. Credit will be granted for only one prefix: PSC or AAS.

## **Psychology**

### **PSY 1001-3 Introductory Psychology (3 + 0)**

Prerequisite: minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

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This course presents basic concepts, principles and methods involved in the scientific study and understanding of human behavior. Attention is given to organic bases of human and other animal behavior with emphasis on perception, learning, motivation, maturation, physical and social adaptation, experimental techniques, individuality and personality, conflict and stress, adjustment and mental health, social behavior and developmental processes. Required course for all psychology majors and minors. (General Studies-Level II, Social Sciences)

### **PSY 1800-4 Developmental Educational Psychology (3 + 2)**

Prerequisite: minimum performance standard scores on the reading, writing and mathematics preassessment placement tests

Restrictions: Course restricted to teacher certification students in early childhood and elementary education only. Students may not substitute PSY 2110 for PSY 1800. Students may not receive credit for both PSY 1800 and PSY 2110.

This course focuses on how developmental and educational psychology can be used to better understand and teach children. Emphasis is placed on milestones of child development, birth to adolescence and the influence of the family, peers and school on development during the preschool and primary years. Students will study a variety of theories about the learning and teaching process. Research-based approaches to effective teaching and how to set developmentally appropriate expectations for children are the primary focus. Observation of children and the learning/teaching process is a required part of the class. (General Studies-Level II, Social Sciences)

### **PSY 2110-3 Educational Psychology (3 + 0)**

Prerequisite: PSY 1001 or permission of the instructor

This course involves application and examination of various principles of psychology to learning and teaching. There is an examination of effective modes as they apply to classroom management and application of new communications as they may affect the classroom. There is an emphasis on development, birth to adulthood.

### **PSY 2150-3 Cross-Cultural Psychology (3 + 0)**

Prerequisites: PSY 1001, satisfaction of English 1020 and Level I Communication course requirement

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This course will critically examine major concepts, theories, models and research in psychology across cultures. New directions and foci across cultures will be explored and applied to personal development.

### **PSY 2160-3 Personality and Adjustment (3 + 0)**

Prerequisites: PSY 1001, satisfaction of the Level I Mathematics course requirement, and either ENG 1010 or the Level I Communication course requirement

The course presents application of principles of psychology to assist individuals in understanding factors that influence personality development and provides knowledge useful for personal improvements and adjustments as well as for social and professional relationships. (General Studies-Level II, Social Sciences)

### **PSY 2210-3 Psychology of Human Development (3 + 0)**

Prerequisites: PSY 1001, satisfaction of the Level I Mathematics course requirement, and either ENG 1010 or the Level I Communication requirement

This course presents the development of behavior from conception through maturity and death and is intended to help the student understand the developmental characteristics of different age groups and the determinants of their individual and collective behaviors. (General Studies-Level II, Social Sciences)

### **PSY 2240-3 Parenting Techniques (3 + 0)**

Prerequisite: PSY 1001

This course is designed to provide students with practical information related to child-rearing techniques. Students will gain an understanding of the role of parents, developmentally appropriate expectations and how cultural variations influence parenting. Students will learn specific parenting techniques from a variety of approaches including how to implement them in the family. The emphasis is on research-based information.

### **PSY 2270-3 Death and Dying (3 + 0)**

Prerequisite: PSY 1001

This course will study the individual as he/she copes with own or another's death from infancy through aging. Emphasis will be placed on common causes of death, the stages in the death process, psychotherapy with the



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dying patient and family members and psychological interpretations of burial rituals.

### **PSY 2310-3 Introduction to Statistics for Social and Behavioral Sciences (3 + 0)**

This course applies basic statistics to measurement, analysis and interpretation in psychology as well as other social and behavioral sciences covering distributions, probability, central tendency, variability, sampling distributions and hypothesis testing.

### **PSY 2320-3 Inferential Statistics (3 + 0)**

Prerequisite: PSY 2310

This course is a continuation of PSY 2310. It covers sampling, experimental design, hypothesis-testing, t distribution, analysis of variance, nonparametric statistics, and correlation and regression in the context of behavioral research.

### **PSY 2410-3 Social Psychology (3 + 0)**

Prerequisite: PSY 1001

This course is an introduction to the content and methods of social psychology. Topics include social perception and cognition, social identity, attitudes, love and attraction, prejudice and discrimination, aggression, altruism, person perception, group dynamics and leadership, environmental effects on behavior and consumer behavior.

### **PSY 2850-3 Psychology of Sexuality (3 + 0)**

Prerequisite: PSY 1001 or permission of instructor

Restriction: Students must be age 18 or over in order to register for and take this course.

This course is a survey of human sexual functioning, with the emphasis on psychological components even though an overview of anatomy and physiology is included. A sampling of topics covered: sexual variation and deviation, sexual dysfunction, social-psychological views of liking and loving, sexual identity, legal aspects of sexuality, and erotica and pornography.

### **PSY 2950-3 Contemporary Issues: Variable Topics (3 + 0)**

Prerequisite: PSY 1001

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Courses included under this umbrella deal with issues of personal importance to students, with an emphasis on applying psychological principles and knowledge to contemporary questions, rather than a mastery of an academic content area in psychology. Course content will vary, and the course may be repeated for credit for different issues. Issues considered may include psychology of management; dynamics of depression; stress management; and others.

### **PSY 3000-3 Theories of Personality (3 + 0)**

Prerequisite: PSY 1001

Students will learn the major contemporary theories of personality. The course will emphasize neurobiological, behavioral, psychodynamic, cognitive and humanistic perspectives on human behavior and mental processes. The underlying philosophies and research support for these theories will be examined.

### **PSY 3050-3**

### **(WMS 3050) Psychology of Gender (3 + 0)**

Prerequisite: PSY 1001 or WMS 1001

This course presents a survey of major contemporary approaches to gender, including a range of scientific and theoretical work. A constructionist approach is utilized to synthesize the views. The course then reviews several major areas of application, including relationships, health, violence, workplace and achievements. Credit will be granted for only one prefix: PSY or WMS.

### **PSY 3070-3**

### **(WMS 3070) Psychology of Sexual Orientation (3 + 0)**

Prerequisite: PSY 1001 and 6 additional hours of PSY or permission of instructor

This course explores psychological theory and research dealing with sexual orientation, with an emphasis on lesbian, gay and bisexual (LGB) identity. Topics include historical and theoretical frameworks, homophobia and

heterosexism, origins of sexual orientation, LGB identity development and coming out, diversity, relationships and parenting, the role of community and others. Credit will be granted for only one prefix: PSY or WMS.

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### **PSY 3100-3 Psychology of Counseling (3 + 0)**

Prerequisite: PSY 1001

This course is intended to provide students with a first course in psychological foundations of counseling. It also will provide opportunities for students to investigate and become familiar with a variety of counseling and therapy models.

### **PSY 3170-3 Multicultural Service Learning (2 + 2)**

Prerequisites: PSY 1001 and six additional semester hours in psychology

This course is designed to combine psychological theory and practice around multicultural issues (including not only traditional classifications based on race and ethnicity but also others such as age, gender, socioeconomic level, health status and sexual orientation). Lectures, readings and discussions are integrated with a required service learning placement involving 45 hours of volunteer work in a psychological setting with supervision and training as necessary. (Multicultural)

### **PSY 3250-3 Child Psychology (3 + 0)**

Prerequisites: PSY 1001 and satisfaction of all General Studies Level I course requirements

This course covers the major theories of child development and research related to child behavior. A social science emphasis is placed on prenatal, physical, social, cognitive, emotional, language and psychological development of normal children. (General Studies-Level II, Social Sciences)

### **PSY 3260-3 Psychology of Adolescence (3 + 0)**

Prerequisites: PSY 1001 and satisfaction of all General Studies Level I course requirements

This course covers the major theories of adolescence and research related to adolescent behavior, including emphasis on the physical, social, cognitive and emotional developments of this period. (General Studies-Level II, Social Sciences)

### **PSY 3270-3 Adulthood and Aging (3 + 0)**

Prerequisite: PSY 1001

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This course is a developmental study of the adult from young adulthood throughout the remainder of life.

**PSY 3310-3 Psychological Research Methods I (2 + 2)**

Prerequisite: PSY 2310 and PSY 2320

This course will introduce the student to basic methodology concerned with the collection or interpretation of data. Experimental techniques will be emphasized.

**PSY 3320-3 Psychological Research Methods II (2 + 2)**

Prerequisites: PSY 2320 and PSY 3310

This course is a continuation of PSY 3310 with emphasis on experimental and field techniques for both laboratory and field research, conducting experiments, and writing research reports.

**PSY 3400-3 Psychology of Exceptional Children (3 + 0)**

Prerequisite: PSY 2210 or PSY 3250

This course examines the psychology of atypical children: learning disabled, gifted, mentally retarded, physically handicapped, chronically ill, emotionally disturbed and neurologically impaired. Historical context, research findings, etiology, assessment, intervention options and prognosis are examined for each exceptionality.

**PSY 3420-3 Issues in Social-Personality Psychology: Variable Topics (3 + 0)**

Prerequisites: PSY 1001; PSY 2160 or PSY 2410

This course entails an in-depth consideration of specific areas and issues in contemporary social psychology and personality theory. Emphasis will be on exploration of current theory, research and applications. Course content will vary and the course may be repeated for credit for different topics. Topics considered may include: transpersonal psychology, social learning theory, attitude change and others.

**PSY 3440-3 Cravings and Addictions (3 + 0)**

Prerequisite: PSY 1001

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This course offers a multidisciplinary analysis of a broad range of addictive disorders including alcohol or other drugs and a spectrum of behavioral disturbances including excessive eating, exercising, gambling and risk taking. Emphasis is placed on contemporary strategies for prevention, early intervention and treatment.

**PSY 3450-3 Industrial Psychology (3 + 0)**

Prerequisite: PSY 1001

This course provides a comprehensive survey of industrial and organizational psychology for students preparing for careers in science, social sciences, the humanities, education, and business, as well as psychology. Applications of industrial psychology to work situations, personnel selection and training, consumer psychology, advertising and sales are considered.

**PSY 3470-3 Psychology of Violence and Aggression (3 + 0)**

Prerequisites: PSY 1001 and three additional hours of psychology coursework

This course provides an overview of the major theoretical perspectives in violence and aggression, as well as application in the following research areas: family violence, criminal violence, gang/cult violence, wartime violence and more. It concentrates on psychological mechanisms of aggression, the prevailing social norms and cognitive factors that facilitate the expression of aggression. Remedies are suggested on both the individual and global level.

**PSY 3480-3****(WMS 3480) Psychology of Women (3 + 0)**

Prerequisite: PSY 1001 or WMS 1001

This course presents the history and development of theories, research and concepts in the psychology of women, including a focus on mental health and illness, the pathology of women's social roles, biological bases of women's behavior and feminist psychological theories and research. Credit will be granted for only one prefix: PSY or WMS.

**PSY 3500-3 Research Issues: Variable Topics (3 + 0)**

Prerequisites: PSY 1001 and PSY 2310 or permission of instructor

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This course presents an in-depth consideration of current areas and issues in experimental psychology, focusing on the scientific investigation of various aspects of human functioning. Course content will vary and may be repeated for credit as the course title changes. Topics may include information processing, stimulus control of behaviors, health psychology and others.

**PSY 3550-3 Environmental Psychology (3 + 0)**

Prerequisites: PSY 1001 and PSY 2310

This course surveys empirical and theoretical work on the influence of the physical environment on human behavior and experience and the psychological factors in environmental problems and solutions.

**PSY 3570-3 Cognitive Psychology (3 + 0)**

Prerequisite: fifteen hours of psychology or permission of instructor

This course examines current research and theory in the areas of attention, memory, perception, pattern recognition, language, decision making, problem solving and creativity. Information processing and other perspectives are explored.

**PSY 3590-3 Theories of Motivation (3 + 0)**

Prerequisites: PSY 1001, nine hours of upper-division psychology, and BIO 1000 or equivalent

This course surveys psychological theories of motivation and supporting research. Topics include: needs, drives, homeostasis, escape, avoidance, anger, aggression, cognitive consistency, achievement, power and altruism. Primarily for psychology majors and minors.

**PSY 3620-3 Abnormal Psychology (3 + 0)**

Prerequisites: PSY 1001, and any one of the following: PSY 2210, PSY 3000, PSY 3570, or PSY 3590

Students examine the major theories of abnormal behavior: neurobiological, behavioral, psychodynamic, cognitive and humanistic. The course provides a description of the behavior patterns defined as abnormal, an explanation about the causes of abnormal behavior, and a realization of how management and treatment strategies stem from notions of causation.

**PSY 3700-3**

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### **(AAS 3700) Psychology of Racism and Group Prejudice (3 + 0)**

Prerequisites: PSY 1001, AAS 1010, and three hours of coursework at the 2000-level or above in AAS, CHS, ICS, NAS, PSY, or WMS, or permission of instructor

This course examines the origins, nature and transmission of prejudice from a psychological perspective. Specific areas examined include racism, sexism, classism and homophobia. Theoretical orientations, research and perspectives on change are addressed. Credit will be granted for only one prefix: PSY or AAS.

### **PSY 3980-3 Cooperative Education: Psychology (0 + 9)**

Prerequisites: PSY 1001, major or minor in psychology, upper-division standing, permission of instructor

This course provides an advanced internship experience in a private company or governmental agency related to psychology, supervised by professionals on-the-job in conjunction with an MSCD psychology professor. May be repeated once for credit with a different internship.

### **PSY 4150-3 Introduction to Psychological Testing (3 + 0)**

Prerequisites: PSY 1001, PSY 2310, and either PSY 3000 or PSY 3620

This course studies the underlying assumptions of reliability and validity and use of tests in achievement, aptitude and diagnostic situations. The course surveys selected instruments of each type stressing utility and limitations.

### **PSY 4300-3 Sensation and Perception (3 + 0)**

Prerequisites: BIO 1000 or equivalent, PSY 1001, PSY 2310, and nine additional hours of psychology coursework

This course examines how information about the outside world is sensed and how that information is organized

and interpreted to form perceptions. Anatomy and physiology of the sensory systems will be studied, as will perceptual theories, models, controversies, and applications.

### **PSY 4310-3 Physiological Psychology (3 + 0)**

Prerequisites: BIO 1000 or equivalent, PSY 1001, and nine hours of upper-division psychology courses, or permission of instructor

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This course studies the physiological bases of normal and abnormal behavior with emphasis on neurology and hormones.

**PSY 4390-3 Psychology of Learning (3 + 0)**

Prerequisites: PSY 2310 and nine hours of upper-division psychology courses, or permission of instructor

This course provides a general study of the psychology of learning including leading theories and principal empirical findings, both historical and contemporary. This course includes both animal and human learning.

**PSY 4410-3 Human Factors Engineering (3 + 0)**

Prerequisites: PSY 1001 and PSY 2310, or permission of instructor

This course surveys the field of human engineering dealing with the problems and processes involved in designing equipment and environments to optimally serve their intended functions. Emphasis is on the industrial applications of psychological research data to the design of equipment and environments.

**PSY 4450-3 Advanced Statistics: SPSS (3 + 0)**

Prerequisites: PSY 2320 or its equivalent, and permission of instructor before enrolling

This course offers study of multivariate statistics such as multiple regression, factor analysis, discriminate analysis and multivariate analysis of variance. Students will learn how to use the Statistical Package for the Social Sciences to perform the necessary statistical tests. Emphasis will be on understanding, application and interpretation of the multivariate statistics.

**PSY 4510-3 History and Systems of Psychology (3 + 0)**

Prerequisites: fifteen semester hours of psychology, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course presents a critical survey of major theoretical systems in psychology in the context of an historical perspective. (Senior Experience)

**PSY 4630-3 Introduction to Clinical Psychology (3 + 0)**

Prerequisites: PSY 3000 and PSY 3620



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This course is a survey of behavior disorders with an emphasis on diagnostic and therapy theories, procedures and techniques. There is a focus on Colorado law covering the practice of psychology as well as ethical issues in the practice of therapy.

### **PSY 4950-3 Pro-seminar in Psychology: Variable Topics (3 + 0)**

Prerequisites: junior or senior standing and psychology major or minor

This course is an intensive teaching seminar, intended for advanced students majoring or minoring in psychology, organized around a selected theme. Course content will vary, and the course may be repeated for credit for different topics. Topics considered may include advanced seminar in sexuality, forensic psychology, psycholinguistics, honors seminar and others.

### **PSY 4970-3 Teaching of Psychology (3 + 0)**

Prerequisites: fifteen semester hours of psychology, junior or senior standing, psychology major or minor

This course provides intensive experience as an undergraduate teaching assistant under close faculty supervision. The experience includes lecture/seminar meetings and additional hours of application each week. Students prepare presentations, critiques and discussions of emerging issues.

## **Reading**

### **RDG 1510-3 Cognitive Strategies for Analytical Reading (3 + 0)**

Prerequisites: minimum performance standard score on the reading preassessment placement test

This course is designed to expand communication strategies in reading, listening and reasoning. Through pragmatic assignments, students will have the opportunity for guided practice and application. (General Studies-Level I, Communications)

### **RDG 3060-3 Critical Reading/Thinking (3 + 0)**

Prerequisites: RDG 1510 or permission of instructor and satisfaction of Level I General Studies course requirements

This course is designed to develop and expand analytical, creative and evaluative thought processes. Students will apply their critical reading and thinking processes as they study academic and societal issues. They will

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learn strategies for transferring these processes to other situations. (General Studies-Level II, Arts and Letters)

### **RDG 3120-4 Developing Print Literacy: Preschool-Grade 3 (4 + 0)**

Prerequisites: EDU 2340 and EDU 2350 or permission of instructor

This course is designed for preservice teachers seeking licensure in Early Childhood Education. It introduces prospective teachers to all aspects of a balanced program of literacy instruction. Focus is on instruction that will enable children to develop the skills, concepts and attitudes necessary for greatest success in becoming proficient with print. The needs of diverse student populations are addressed when selecting instructional approaches and designing materials for literacy development.

### **RDG 3130-5 Literacy Instruction in Grades K-6 (4.5 + .5)**

Prerequisites: EDU 3100 and PSY 1800 or permission of instructor

This course introduces prospective teachers to all aspects of a K-6 developmental reading program for balanced literacy instruction. It stresses environmental, cognitive and language factors influencing the acquisition and development of literacy with emphasis on the development of phonemic and phonological awareness. The focus of this course is to prepare teachers to succeed in the literacy development of diverse learners. A field experience component of this course provides students the opportunity to practice theoretical concepts through structured observations, micro teaching assignments and assessment techniques.

### **RDG 3140-2 Whole Language Integration Across the Curriculum (2 + 0)**

Prerequisites: RDG 3120, RDG 3130, or RDG 3280 or permission of instructor

Focus is placed upon comprehension-centered whole language as a process. As a result of this course, prospective teachers will be able to implement integrated reading and writing instruction using literature.

### **RDG 3150-4 Middle School Instructional Reading and Writing Strategies (4 + 0)**

Prerequisites: EDS 3110 and EDS 3120 or permission of instructor

This course focuses on the instructional strategies available to the middle school teacher. Emphasis is placed on using an integrated reading and

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writing approach to the middle school academic core. Extensive practice will be done in writing interdisciplinary thematic units that are developed around compelling personal and social issues for the middle school student.

**RDG 3160-4 Strategies for Enhancing Adult Literacy (4 + 0)**

Prerequisite: RDG 3140 or permission of instructor

This course introduces prospective teachers to all aspects of adult basic literacy instruction. Included are word identification skills, comprehension-based instructional strategies and vocabulary-building techniques that can be used in an integrated curriculum with functionally limited adults in adult basic education courses.

**RDG 3280-4 Teaching of Reading and Writing in the Content Areas (4 + 0)**

Prerequisites: EDS 3110 and EDS 3120 or permission of instructor

This course is designed for students expecting to teach a content area subject in grades 6-12. Special emphasis is given to the literacy skills (listening, reading, writing, discussion and thinking) that should be incorporated into content area instructional planning and decision making.

**RDG 3530-2 Techniques of Teaching Reading to Non-English Speakers (1 + 2)**

Prerequisite: RDG 3120 or RDG 3130 or RDG 3280 or permission of instructor

This course covers theories, methods, and techniques for teaching language and reading to the non-English speaker in grades K-6. A minimum of 25 hours of tutoring with a non-English speaker is required.

**RDG 3580-3 Reading in the Bilingual-Bicultural Classroom (3 + 0)**

Prerequisites: RDG 3120 or RDG 3130 or RDG 3280 and proficiency in Spanish

This course emphasizes the teaching of Spanish reading skills in the bilingual-bicultural classroom, preschool through third grade. Methods and techniques for systematically teaching the primary child to speak and read the Spanish language are included.

**RDG 3600-3 Practicum in Teaching Reading (1 + 4)**

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Prerequisite: RDG 3120 or RDG 3130 or RDG 3280 or permission of instructor

This course encompasses planning, preparing and presenting reading lessons for a group of students in developmental reading programs. It is designed to acquaint prospective teachers with the practical application of theoretical concepts of teaching. Fifty clock-hours of experience in public or parochial schools are required.

**RDG 4250-4 Literacy Assessment: Theory and Practice (4 + 0)**

Prerequisite: RDG 3600 (may be taken concurrently), or permission of instructor

This course focuses on literacy development from kindergarten through secondary grade levels. Students learn to administer and interpret appropriate assessment instruments and use the results to write instructional plans designed to further literacy development for a diverse population of students.

**RDG 4340-2 Development of Reading/Writing Instructional Materials and Procedures (2 + 0)**

Prerequisite: RDG 3600 (may be taken concurrently), or permission of instructor

This course is designed to provide students with the opportunity to analyze and construct visual aids and writing materials appropriate for teaching reading and writing, reinforcing reading skills and concepts and remediating reading deficiencies.

**RDG 4500-3 Language Arts and the Classroom Computer (3 + 0)**

Prerequisite: RDG 3120, RDG 3130, or RDG 3280 or permission of instructor

Reviews the role of, evaluation of, and strategies for integrating computer software into the language arts classroom. Introduces a common word processing and database program and uses in developing reading and writing.

**RDG 4550-1-3 Current Literacy Issues: Variable Topics (1-3 + 0)**

Prerequisites: RDG 3120 or RDG 3130 or RDG 3280 or permission of instructor

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This variable topics/variable credit course will enable students to pursue an in-depth study of one or more literacy issues that are not covered to a great extent in other reading courses. Course may be repeated for credit for different topics.

### **RDG 4600-3 Practicum in Literacy Enhancement (1 + 4)**

Prerequisite: satisfaction of all Level I and Level II General Studies course requirements, senior standing, and RDG 4250 or permission of instructor

This course involves one-to-one instructional sessions in literacy enhancement for children brought to the campus or in Denver area schools. Appropriate assessment instruments are administered and the results are interpreted and used to plan and implement effective tutoring sessions. A total of 50 clock hours with the children is required. (Senior Experience)

## **Russian**

### **RSN 1010-5 Elementary Russian I (5 + 0)**

This is an introductory course designed to teach all four language skills: speaking, listening comprehension, reading and writing. Classroom activities will put a special emphasis on the development of speaking skills through structured interactions and natural communication between the students. An overview of selected aspects of Russian culture will be incorporated into the course through a variety of activities.

### **RSN 1020-5 Elementary Russian II (5 + 0)**

Prerequisite: RSN 1010 or equivalent

As a continuation of RSN 1010, this course further emphasizes pronunciation, speaking and understanding based on more complex grammar, reading, and writing activities.

## **Science**

### **SCI 2610-3 Integrated Natural Science I (1 + 4)**

Prerequisites: minimum performance standard scores on reading and writing preassessment tests and MTH 1080 or MTH 1610 or equivalent, or permission of instructor; and either ENG 1010 or completion of the Level I General Studies Communication requirement

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This interdisciplinary course investigates the integrated nature of scientific knowledge and explores the common foundations of the physical sciences. The focus of this first course, in a two-course sequence, is on the primary content areas of physics and chemistry with extensions to astronomy, earth system science, and biology. This course develops operational and reasoning skills in the sciences through a student-centered, cooperative-inquiry approach to learning and instruction using a combined laboratory/classroom/field lecture format. Three field trips are required. (General Studies-Level II, Natural Science)

### **SCI 2620-3 Integrated Natural Science II (1 + 4)**

Prerequisite: SCI 2610 or permission of instructor

This second semester of the Integrated Natural Science sequence reinforces skills and develops knowledge through applications in the primary content areas of biology, astronomy, and earth system science integrating the foundational principles of physics and chemistry. Three field trips are required. (General Studies-Level II, Natural Science)

### **SCI 3950-3 Methods of Teaching Science (3 + 0)**

Prerequisite: major or minor in science

Designed for those students preparing for teaching science in the secondary school. Course content will include methods of teaching, examination of existing curricular models and construction of curricula. To be taken not more than two semesters before student teaching.

## **Special Education Courses**

### **SED 3000-3 Diversity, Disability and Education (3 + 0)**

This course provides an overview of the philosophical, historical and sociological foundations of general and special education, with an emphasis on multicultural perspectives. Educational approaches for meeting the needs of ethnically diverse learners are emphasized. (Multicultural)

### **SED 3600-3 The Exceptional Learner in the Classroom (3 + 0)**

This course provides a survey of various exceptionalities and includes information about child abuse. Educational strategies and curriculum modifications for inclusion are addressed.

### **SED 3700-3 Educational Exceptionality and Human Growth (3 + 0)**

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Prerequisite: SED 3000, SED 3600

This course provides an overview of the special needs of individuals with physical, communicative, cognitive and social/emotional disabilities. Emphasis is given to explaining how these disabilities may influence development and the impact on educational experiences.

### **SED 3800-3 Teaching Students with Learning and Behavior Disorders (2 + 2)**

Prerequisites: SED 3000, SED 3600, SED 3700

The psychological, social and academic needs of students with mild/moderate disabilities (learning disabilities, mental retardation and behavior disorders) will be surveyed across the continuum of development. Instructional approaches will be emphasized. This class includes 30 hours of clinical experience in a school setting.

### **SED 3850-3 Diagnosis and Evaluation of Exceptional Students (3 + 0)**

Prerequisites: SED 3000, SED 3600, SED 3700, SED 3800 or permission of instructor

This course focuses on making informed decisions on the selection, use and interpretation of formal and informal instruments for assessment of students with disabilities. There will be an emphasis on diagnostic-prescriptive teaching.

### **SED 4000-3 Collaborative Practices in Special Education (3 + 0)**

Prerequisites: SED 3000, SED 3600, SED 3700, SED 3800, SED 3850 or permission of instructor

This course focuses on effective collaboration among professionals and between professionals and families for the successful coordination of special education services. The development of effective communication and consultation skills will be emphasized.

### **SED 4200-3 Language Development and Learning Disabilities (2 + 2)**

Prerequisite: SED 3000, SED 3600, SED 3700, SED 3800, SED 3850

The nature, diagnosis and treatment of language disorders will be surveyed. This course will emphasize language development and the remediation of

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common deviations associated with exceptional students. This class includes 30 hours of clinical experience in a school setting.

**SED 4250-3 Classroom Management for Exceptional Students (3 + 0)**

Prerequisite: SED 3000, SED 3600, SED 3700, SED 3800, SED 3850, SED 4000

This course explores the use of systematic behavioral assessment and intervention strategies with exceptional students. It is designed to introduce the management process in the classroom from a decision-making perspective. A variety of intervention theories and plans will be discussed in order to prepare teachers to make appropriate management decisions in diverse contexts. Practical application of management plans for both general and special education classrooms will be covered.

**SED 4430-4 Assessment and Instruction Practicum: Elementary Education (1 + 6)**

Prerequisites: SED 3000, SED 3600, SED 3700, SED 3800, SED 3850, SED 4000, SED 4200, SED 4250 or permission of instructor

This course provides a supervised practicum in a special education setting for prospective teachers of children with moderate needs at the elementary school level. A seminar addressing assigned topics is included.

**SED 4440-4 Assessment and Instruction Practicum: Secondary Education (1 + 6)**

Prerequisites: SED 3000, SED 3600, SED 3700, SED 3800, SED 3850, SED 4000, SED 4200, SED 4250 or permission of instructor

This course provides a supervised practicum in a special education setting for prospective teachers of adolescents with moderate needs at the secondary school level. A seminar addressing assigned topics is included.

**SED 4490-6-12 Special Education Student Teaching and Seminar ((1 + 12.5-27.5))**

Prerequisites: SED 3000, SED 3600, SED 3700, SED 3800, SED 3850, SED 4000, SED 4200, SED 4250, SED 4430, SED 4440

This course is a full-time special education student teaching experience in an accredited public or private school that provides responsibility for teaching an identified group of learners with moderate disabilities. College supervisors provide regularly scheduled observations and seminars. (Senior Experience)



**Sociology**

**SOC 1010-3 Introduction to Sociology (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment placement tests

A course that facilitates the development of a sociological perspective as it applies to understanding the social forces that shape persons' lives, interests and personalities. Emphasis is on the scientific study of groups; the importance of culture; the processes of socialization, social control, and social conflict; and the major institutions of society. (General Studies-Level II, Social Sciences)

**SOC 1040-3 Introduction to Social Gerontology (3 + 0)**

Prerequisite: minimum performance standards on the reading, writing and mathematics freshman placement tests

This course is a study of the processes of aging, biological and social, of the impact of the environment on the personality and behavior of older persons and their roles in society. (General Studies Course Level II, Social Sciences, Multicultural)

**SOC 2000-3**

**(AAS 2000) Social Movements and the Black Experience (3 + 0)**

Prerequisite: AAS 1010, SOC 1010, or permission of instructor

Analyzes and interprets the nature, cause and consequence of black social movements in the United States, ranging from the slave period to the present. Particular attention is given to the Civil Rights movement of the 1950s and 1960s. Credit will be granted for only one prefix: SOC or AAS.

**SOC 2010-3 Current Social Issues (3 + 0)**

Prerequisites: satisfaction of the Level I Mathematics course requirement, and either ENG 1010 or the Level I Communication course requirement

This course presents an analysis of the causes and consequences of major social problems, such as crime, family violence, racial and ethnic conflict and poverty, using examples from contemporary America in conjunction with historical and cross-cultural data. (General Studies-Level II, Social Sciences)

**SOC 2500-3 Deviant Behavior in Society (3 + 0)**

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Prerequisite: SOC 1010

An introduction to the study of various types of deviance in societies, their sources and consequences. Several definitions and theoretical approaches are presented and analyzed, with applications to such contemporary topics as crime and delinquency, mental disorders, and society's "outsiders."

### **SOC 3040-3 Contemporary Issues in Gerontology (3 + 0)**

Prerequisite: SOC 1010

A focus on economic, social, political, and cultural issues relevant to aging and the aged, including such topics as minority status, social definitions and restrictions, pensions and income, medical care, institutionalization, senior housing, transportation and relationships between the generations.

### **SOC 3090-3 Urban Sociology (3 + 0)**

Prerequisite: SOC 1010

The history and development of the modern city and its relationship to social and cultural change will be the focus of this course. Social problems, power structures and social organization, including class divisions, migrants and urbanites, urban institutions, and mass communications and urban leisure will be examined.

### **SOC 3100-3 Death and Dying (3 + 0)**

Prerequisite: SOC 1010

An examination of attitudes, customs and institutions related to death and dying, approached three-dimensionally: from the viewpoint of the individual, of society, and of established institutions. Relevant for students in medicine, psychology, law, nursing, law enforcement, human services, business, education and the behavioral social sciences.

### **SOC 3130-3**

#### **(CHS 3100) The Chicano Community (3 + 0)**

Prerequisite: CHS 1000 or permission of instructor and satisfaction of all Level I General Studies course requirement

An in-depth study of the history of community organizations, the process by which they came about, and information about organizations and their

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functions in the community. Credit will be granted for only one prefix: SOC or CHS. (General Studies-Level II, Social Sciences; Multicultural)

### **SOC 3140-3**

#### **(AAS 3300) The Black Community (3 + 0)**

Prerequisites: AAS 1010 or AAS/SOC 2000, or permission of instructor and satisfaction of all Level I General Studies course requirements

Relates fundamental concepts and theories of sociology and African American studies to the study of the black community through an analysis of the educational, political, religious, economic and family dimensions. Emphasizes local, national and international black communities. Classic and contemporary Black community studies are examined. Credit will be granted for only one prefix: SOC or AAS. (General Studies-Level II, Social Sciences; Multicultural)

### **SOC 3160-3 Industry, Work and Occupations (3 + 0)**

Prerequisite: SOC 1010

Provides a sociological perspective of labor force trends and the nature of work in the United States. The technological, demographic, cultural and social context of work will be examined, as well as the individualistic factors affecting occupational processes and outcomes.

### **SOC 3220-3**

#### **(WMS 3220) Race, Gender and Ethnic Groups (3 + 0)**

Prerequisites: SOC 1010, WMS 1001, or permission of instructor, and satisfaction of all Level I General Studies course requirements

A focus on race, racism, gender biases and ethnic prejudices, their origins and characteristics; facts and myths about populations, including the social, psychological, and cultural sources of discrimination and bias; implications in current societal structures and institutions. Credit will be granted for only one prefix: SOC or WMS. (General Studies-Level II, Social Sciences; Multicultural)

### **SOC 3240-3 Poverty in America (3 + 0)**

Prerequisite: SOC 1010

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An examination of urban poverty and of political, economic and social factors contributing to and perpetuating various conditions of the poor. Also included is an analysis of past and current poverty programs and their impact on America's underprivileged.

**SOC 3320-3 Sociological Theory: Past and Present (3 + 0)**

Prerequisite: SOC 1010

An analysis of major sociological theories, from those of Comte, Marx, Durkheim, Weber and others in the late nineteenth century, to contemporary theoretical approaches in sociology. Emphasis is on comparison and critical understanding of the varying perspectives and on the continuing development of differing theories in changing social contexts.

**SOC 3400-3 Childhood and Adolescent Socialization (3 + 0)**

Prerequisite: SOC 1010

An analysis of the socialization of children and adolescents in American society, emphasizing the impact of the family, education, religious organizations, the mass media and teenage subcultures on the socialization process. Socialization in other cultures will be studied for comparison.

**SOC 3410-3 The Family in Transition (3 + 0)**

Prerequisite: SOC 1010

This course is designed to study the changing nature of the family in a changing society. A variety of theoretical perspectives will be incorporated to facilitate an understanding of the transitions taking place in the areas of sex roles, coupling, parent-child relationships as well as variations in lifestyle, including historical and cross-cultural data.

**SOC 3420-3 Education in a Changing Society (3 + 0)**

Prerequisite: SOC 1010

An analysis of all levels of formal education in contemporary American society, focusing on the formal and informal goals of education, the relation of education to other societal institutions and to social change and current issues regarding education in the U.S.

**SOC 3430-3****(WMS 3350) Sociology of Gender Roles (3 + 0)**

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Prerequisite: SOC 1010 or WMS 1001

An exploration of historical and contemporary social, political and economic trends affecting the roles of women and men in society. The emphasis is on the historical, social and cultural forces that have contributed to gender-role stereotyping in the United States and in other societies, and on the effects on individuals and the broader society in terms of maintaining and/or changing gender roles. Credit will be granted for only one prefix: SOC or WMS.

### **SOC 3440-3**

#### **(AAS 3550) The Black Family (3 + 0)**

Prerequisites: AAS 1010 or SOC 1010 and satisfaction of all Level I General Studies course requirements

Provides an in-depth exploration of the black family as a social institution. Emphasizes the historical roots of the black family and how the African influence is still enmeshed in the functioning of the family in modern society. Examines the factors responsible for the ability of the black family to meet the challenge of a changing society. Credit will be granted for only one prefix: SOC or AAS. (General Studies-Level II, Social Sciences)

### **SOC 3460-3 Sociology of Sexuality (3 + 0)**

Prerequisite: SOC 1010

This course is a survey of historical, cultural and social aspects of human sexuality. The interplay between sex and society will be the major focus. Cross-cultural and historical analysis of sexual values and behavior will be examined. Competing and conflicting sexual value systems in contemporary societies will be analyzed. Other topics include: sexual scripts, sexual deviance and social control, sexual socialization processes and the social bases of sexual dysfunction.

### **SOC 3470-3**

#### **(CHS 3210) The Chicano Family (3 + 0)**

Prerequisites: CHS 1000 or permission of instructor and satisfaction of all Level I General Studies course requirements

Provides the participant with an opportunity to study the Chicano family as a social institution in its varying manifestations as it transmits knowledge for

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existence in a multicultural world. Credit will be granted for only one prefix: SOC or CHS. (General Studies Course-Level II, Social Sciences)

### **SOC 3500-3 Criminology (3 + 0)**

Prerequisite: SOC 1010

A sociological analysis of the nature, causes and treatment of crime and delinquency; of the processes by which such persons and behaviors develop.

### **SOC 3510-3 Juvenile Delinquency (3 + 0)**

Prerequisite: SOC 1010

This course emphasizes the universality and variability of misconduct and delinquencies of youth. In addition, the course examines the youth subculture, gangs, drug addiction, the juvenile justice system and the effects of child abuse.

### **SOC 3550-3 Sociology of Law (3 + 0)**

Prerequisite: SOC 1010

The interplay between social forces and law is the major focus of the course. Sociological theories about the interplay between social-cultural factors and law will be elaborated. The role of value orientations, one's position in the social structure and other sociological variables in the legislative process will be discussed. Conflicts regarding appropriate legislation and enforcement will be debated and analyzed.

### **SOC 3590-3 Social Statistics (3 + 0)**

Prerequisites: MTH 1210 and SOC 1010

Begins with a review of descriptive and inferential statistics and their application to social phenomena. The course covers measures of association and non-parametric statistics using SPSS as the computer package. Includes: measures of central tendency, variability, probability, chi square, lambda, gamma, tau, Somer's d, r and non-parametrics.

### **SOC 3600-3 Research in the Social Sciences (3 + 0)**

Prerequisite: SOC 1010

An introduction to research in the social and behavioral sciences, emphasizing student experience in the actual application of a variety of

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modern social scientific data-gathering, interpretation and reporting techniques.

**SOC 3650-3 Contemporary Social Trends: Variable Topics (3 + 0)**

Prerequisite: SOC 1010

An examination of trends and/or issues in contemporary society, using the sociological perspective. Each section addresses a separate issue or development. This course may be repeated for credit under different topics.

**SOC 3710-3 Politics and Power (3 + 0)**

Prerequisite: SOC 1010

An analysis of the structures of power and decision-making in American society, focusing on the interrelationships between political institutions and other institutions in society, sociological theories of power and possible consequences of various political structures.

**SOC 3730-3 Mass Media and Social Behavior (3 + 0)**

Prerequisite: SOC 1010

A study of the function of mass media as a dynamic force in political, economic, and social life and its multi-dimensional structure and impact for creating new personal behavior, as well as collective behavior in contemporary society.

**SOC 3800-3 Health and Healers (3 + 0)**

Prerequisite: SOC 1010

The health care system is currently in a state of transition. This course is designed to analyze the changes taking place from a variety of theoretical models. Specific issues as well as the roles of the participants will be analyzed in terms of the impact upon the health of Americans.

**SOC 3810-3 Population Issues (3 + 0)**

Prerequisite: SOC 1010

Examination of past and current demographic theories, the factors associated with population growth, decline, and dispersion and the national population policies of those nations addressing themselves to the issue of the world population explosion.

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**SOC 3830-3 Mental Disorders (3 + 0)**

Prerequisite: SOC 1010

An examination of the concepts and treatment procedures for those defined as mentally ill within this society. Specific social variables such as social class, sex, race and marital status will be analyzed in terms of their influence on diagnosed disorders.

**SOC 3910-3 Religious Movements in America (3 + 0)**

Prerequisite: SOC 1010

A development of a functional theory of religion preceded by an examination of the relationship between religion and such factors as morals, science, magic, personality, ethnicity, social status, economics, political institutions and social change.

**SOC 4200-3 Social Stratification and Inequality (3 + 0)**

Prerequisites: SOC 1010 and SOC 3320

This course examines theories of the distribution of scarce resources within human societies and the consequences of social inequality. Topics include: characteristics and consequences of stratification systems; bases of stratification systems in society; measurement of social position; age, gender and ethnic variations in the social mobility process; social class in the United States.

**SOC 4210-3 Structure and Dynamics of Modern Organizations (3 + 0)**

Prerequisites: SOC 1010 and SOC 3320

The course examines theories of social organization, basic processes and problems that occur between the individual and the design of the organizational structure and contemporary examples of organizational structures that are designed to meet organizational goals and individual needs.

**SOC 4220-3 Society and the Environment (3 + 0)**

Prerequisites: SOC 1010 and senior standing

This course explores the relationship between humans in social groups and their effect on the natural environment. A variety of social theories are used



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to analyze these effects. Proposals for implementing change are evaluated from a sociological perspective.

**SOC 4300-3 Social Change (3 + 0)**

Prerequisite: SOC 1010

An analysis of the alterations in patterns of culture, social systems and social behavior over time. A variety of theoretical perspectives will be used as a basis for understanding these changes. Factors that contribute to as well as those that inhibit change will be analyzed.

**SOC 4350-3 Advanced Seminar in Sociological Theory: Variable Topics (3 + 0)**

Prerequisite: permission of instructor

Content varies, but each course involves intensive study and critical analysis of major sociological theories, such as those of Weber, Durkheim, Marx, Simmel, Mannheim, C. Wright Mills, and Parsons; or of selected theoretical systems in contemporary or classical sociology. This course may be repeated for credit under different topics.

**SOC 4600-3 Advanced Research in the Social Sciences (3 + 0)**

Prerequisite: SOC 1010, SOC 3320, SOC 3600; satisfaction of Level I and Level II General Studies course requirements, and senior standing

Continuation of SOC 3600. Further application of research techniques, including individual and task-group assignments designed to develop students' skills in designing, organizing, computer coding and doing computer-assisted analysis of selected research projects. (Senior Experience)

**SOC 4700-3 Advanced Field Internship (0 + 9)**

Prerequisites: SOC 2010 and upper-division standing

An advanced level supervised in-service field experience in the broad area of social concern and the "urban scene," conducted with the cooperation of participating agencies and institutions.

**SOC 4710-3 Applied Sociology (2 + 2)**

Prerequisites: SOC 3320, SOC 3600, satisfaction of Level I and Level II General Studies requirements and senior standing

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This capstone course centers on supervised field work. Students will apply theoretical perspectives and methodological techniques within community and organizational settings. (Senior Experience)

## **Spanish**

### **SPA 1010-5 Elementary Spanish I (5 + 0)**

This is a basic course in Spanish, with emphasis primarily on pronunciation, speaking and understanding, supplemented by grammar, reading and writing.

### **SPA 1020-5 Elementary Spanish II (5 + 0)**

Prerequisite: SPA 1010 or one or two years of high school Spanish

This course is the continuation of SPA 1010. (General Studies-Level I, Communications)

### **SPA 1110-3 Basic Conversational Spanish I (3 + 0)**

This course is designed to teach the essentials of the Spanish language through a conversational approach.

### **SPA 1120-3 Basic Conversational Spanish II (3 + 0)**

Prerequisite: SPA 1110 or equivalent or permission of instructor

A continuation of SPA 1110.

### **SPA 1800-1-15 International Spanish Year I (1-15 + 0)**

This variable credit course is designed for first-year students learning Spanish in a study-abroad setting. The course will recognize an approved, study-abroad, educational experience in Spanish speaking, comprehension, reading and writing.

### **SPA 2110-3 Intermediate Spanish (3 + 0)**

Prerequisites: SPA 1010 and SPA 1020

This course emphasizes oral proficiency and continues the sequence of SPA 1010 and SPA 1020. Classes are taught mainly in Spanish.

### **SPA 2120-3 Spanish Reading and Conversation (3 + 0)**

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Prerequisite: SPA 2110, or equivalent, or permission of instructor

This intermediate course is designed to afford the student the necessary practice to communicate with ease in Spanish. Emphasis lies on vocabulary building, reading of cultural material and conversational skills.

### **SPA 2310-3 Spanish Grammar and Composition I (3 + 0)**

Prerequisite: SPA 1020 or two or three years of high school Spanish

Intermediate course to review and strengthen knowledge of the structure of the Spanish language as a basis for more advanced work in speaking, understanding, reading and writing.

### **SPA 2320-3 Spanish Grammar and Composition II (3 + 0)**

Prerequisite: SPA 2310 or equivalent, or permission of instructor

This course is designed to widen and reinforce the different structures of the Spanish language in order to strengthen the student's writing skills.

### **SPA 2800-1-15 International Spanish Year II (1-15 + 0)**

Prerequisites: one year of college Spanish or equivalent

This variable credit course is designed to recognize second year study of Spanish language and culture in an approved study-abroad setting.

### **SPA 3100-3 Spanish Terminology for the Bilingual Classroom (3 + 0)**

Prerequisite: two years of college Spanish, its equivalent, or permission of the instructor

A practical course designed to help students with the Spanish structures and terminology used in the different areas of instruction.

### **SPA 3110-3 Advanced Conversation (3 + 0)**

Prerequisite: two years of college Spanish or equivalent, or permission of instructor

An advanced course to broaden and strengthen the student's conversational skills, emphasizing current topics in the Hispanic world.

### **SPA 3140-3 Advanced Composition (3 + 0)**

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Prerequisites: SPA 2310 and SPA 2320 or equivalent, or permission of instructor

This course is designed to reinforce and develop further student's abilities in composition tasks that reflect the kind of writing students are generally asked to perform as Spanish majors. Classes are conducted in Spanish.

### **SPA 3150-3 Spanish Phonetics: Theory and Practice (3 + 0)**

Prerequisite: two years of college Spanish or equivalent, or permission of instructor

This course in Spanish phonology is aimed at improving students' pronunciation and introducing them to the field of descriptive linguistics.

### **SPA 3200-3 Culture and Civilization of Spain (3 + 0)**

Prerequisites: two years of college Spanish or equivalent, or permission of instructor; and satisfaction of Level I General Studies course requirements

This course is an advanced Spanish conversational approach to the understanding of the traditions and history of Spain, and the national character as expressed in everyday life. It is based on a reading-lecture discussion format. Oral presentations and a term paper are required. This class is conducted in Spanish. (General Studies-Level II, Arts and Letters)

### **SPA 3210-3 Spanish-American Culture and Civilization (3 + 0)**

Prerequisites: two years of college Spanish or equivalent, or permission of instructor; and satisfaction of Level I General Studies course requirements

This course is an advanced Spanish conversational approach to the chief cultural characteristics of the Hispanic-American world. It is based on a reading/lecture/discussion format. Oral presentations and a research paper are required. Conducted in Spanish. (General Studies-Level II, Arts and Letters)

### **SPA 3220-3 Folklore and Culture of the Mexican Southwest (3 + 0)**

Prerequisites: two years of college Spanish or equivalent, or permission of instructor; and satisfaction of Level I General Studies course requirements

This course is designed to acquaint the students with the culture, folklore and civilization of the Mexican American in the Southwest. The introductory lectures will deal with the Spanish and Indian heritage. Main concentration will be on the culture and folklore of the people from the arrival of Juan de

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Onate to the present. The course is conducted entirely in Spanish. (General Studies-Level II, Arts and Letters)

**SPA 3250-3 Introduction to Literary Studies in Spanish (3 + 0)**

Prerequisite: SPA 2320 or equivalent, or permission of instructor

This course is designed to introduce the students to the study of literature in the Spanish language. Emphasis will be placed on reading and critical analysis of representative works, main literary trends and terminology. Conducted in Spanish.

**SPA 3330-2 Spanish Social and Commercial Correspondence (2 + 0)**

Prerequisite: SPA 2320 or equivalent, or permission of instructor

This course presents the fundamental points relative to personal and business letters in Spanish, special emphasis on the development of a vocabulary for all types of letters.

**SPA 3400-3 Survey of Spanish Literature I (3 + 0)**

Prerequisite: SPA 3250 or equivalent, or permission of instructor

A general survey of the literature of Spain from the Middle Ages through the romantic era. Reading of representative works, lecture on biography, criticism and recitation will be included. Conducted in Spanish.

**SPA 3410-3 Survey of Spanish Literature II (3 + 0)**

Prerequisite: SPA 3250 or equivalent, or permission of instructor

This course presents Spanish literature since 1870, including post-romanticism, realism, naturalism, the generation of 1898, the genero chico and more recent works. Conducted in Spanish.

**SPA 3510-3 Masterpieces of Latin American Literature (3 + 0)**

Prerequisite: SPA 3250 or equivalent, or permission of instructor

This course is designed to introduce the student to the most important works in Latin American literature with an emphasis in the late nineteenth and early twentieth centuries. Conducted in Spanish.

**SPA 3520-3 Contemporary Mexican Literature (3 + 0)**

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Prerequisite: SPA 3250 or equivalent, or permission of instructor

This is a course that presents the most representative literary figures of contemporary Mexico. Beginning with the novel of the Revolution, the student will be reading and discussing the works of living authors, including Juan Rulfo, Carlos Fuentes and Octavio Paz. Conducted in Spanish.

**SPA 3800-1-15 International Advanced Spanish (1-15 + 0)**

Prerequisite: upper-division standing in Spanish or equivalent

This course is designed to recognize upper-division study in language, culture and literature in a study-abroad setting. This advanced study in Spanish uses a variety of methods and includes reading, writing and discussion seminars in Spanish.

**SPA 4010-3 Advanced Spanish Writing and Grammar I (3 + 0)**

Prerequisite: SPA 3140 or equivalent, or permission of instructor

This course is designed to afford the student of Spanish an overall acquaintance with contemporary grammatical analysis and terminology, in order to promote and enhance the student's sensitivity regarding the syntactical structure of the Spanish oral and written modes of expression. Classes are conducted in Spanish.

**SPA 4020-3 Advanced Spanish Writing and Grammar II (3 + 0)**

Prerequisite: SPA 4010 or equivalent, or permission of instructor

This course is an intensive study of Spanish idiomatic expressions and selected vocabulary to strengthen the student's language skills, with emphasis on written style and on the understanding of the Spanish syntax. The main purpose of this course is to enable the student to manipulate the target language with accuracy, elegance and assertiveness. Classes are conducted in Spanish.

**SPA 4110-3 Contemporary Spanish Literature (3 + 0)**

Prerequisite: SPA 3400 or SPA 3410 or equivalent, or permission of instructor

This course involves the study and discussion of the major works in contemporary Spanish literature. The course is designed to provide a meaningful language experience through literature and to give an insight

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into essential problems common to the Hispanic world. Conducted in Spanish.

### **SPA 4120-3 Contemporary Latin-American Literature (3 + 0)**

Prerequisite: SPA 3510 or equivalent, or permission of instructor

This is a course in which the student will be critically reading and discussing the major works of contemporary Spanish American authors in order to appreciate their literary and cultural values and to participate in a meaningful language experience. Conducted in Spanish.

### **SPA 4200-3 Spanish-American Essay: 19th and 20th Centuries (3 + 0)**

Prerequisite: SPA 3110 or equivalent, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

Presents, discusses and analyzes the most important literary work of representative nineteenth and twentieth centuries Spanish-American essayists. The course exposes the student to the thought and stylistic modes found in the intellectual production of the selected prominent figures to be studied. Conducted in Spanish. (Senior Experience)

### **SPA 4310-3 History of the Spanish Language (3 + 0)**

Prerequisite: SPA 3140 and SPA 4010 or SPA 4020, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

An introductory course in Spanish philology aimed at improving students' knowledge of Spanish sounds, forms and word order, with the focus on how the Spanish language began and has changed through the centuries. (Senior Experience)

## **Speech**

### **SPE 1010-3 Public Speaking (3 + 0)**

Prerequisites: minimum performance standard scores on the reading and writing preassessment placement tests

This course acquaints students with the basic theory of the art of public speaking and provides experience in the preparation and delivery of short talks. (General Studies-Level I, Communications)

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### **SPE 1400-3 The Emerging Role of Women and People of Color in Radio and Television (3 + 0)**

Prerequisite: permission of instructor

This course is designed to give students a comprehensive overview of the roles of women and people of color in radio and television. This includes portrayals of these two groups in the popular entertainment media, representation on the news and the job climate and outlook in both radio and television.

### **SPE 1500-3 Introduction to Communication Disorders (3 + 0)**

This course is designed to provide basic information on speech-language pathology and audiology as professions introducing the study of normal and disordered speech, language and hearing. This course is useful for students interested in professions of education, nursing, physical or occupational therapy, and psychology, as well as speech-language pathology and audiology.

### **SPE 1610-3**

#### **(EDU 1610, MDL 1610) American Sign Language I (3 + 0)**

Prerequisite: minimum performance on the reading and writing pre-assessment placement test

This course will provide students with a basic understanding of American Sign Language and beginning conversational skills. Students will be introduced to Deaf culture. (General Studies-Level I, Communications)

### **SPE 1620-3**

#### **(MDL 1620) American Sign Language II (3 + 0)**

Prerequisite: SPE/MDL/EDU 1610 or permission of instructor

This course is a continuation of SPE 1610 emphasizing expressive language as well as increasing competence with receptive language skills. The course continues to build vocabulary and familiarity with the complex grammar (morphology and syntax) of this visual language. The Deaf experience and culture is integrated throughout.

### **SPE 1700-3 Communication Theory (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor



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This course reviews the research, theoretical assumptions and model of the oral communication processes. It is designed to provide students with a broad understanding of the basis of oral communication as patterned human behavior.

### **SPE 1710-3 Interpersonal Communication (3 + 0)**

Prerequisite: minimum performance scores on the reading and writing preassessment placement tests

This is a basic skill course in the art of communicating with people. This class provides students with both the exposure to theory and the opportunity to practice developing basic communication skills including listening, perceiving, asserting, nonverbal and verbal language sensitivity and problem-solving tactics. The purpose of this course is to increase students' skill and knowledge in interpersonal communication theory/concepts. (General Studies-Level I, Communications)

### **SPE 1730-3 Listening and Interviewing Communication Skills (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

This course is designed to teach students two associated communication skills: listening and interpersonal interviewing. Both content (informational) and empathetic (feeling) listening skills will be emphasized. Seven situational types of interviews will be explored in the course using listening techniques as the primary communication skill.

### **SPE 2110-3 Discussion Methods (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

This performance course deals largely with the processes of decision-making in small groups and conferences: research and investigation, analysis of social problems, use of evidence and argument and social interaction among participants.

### **SPE 2160-3 Organizational Communication Theory (3 + 0)**

Prerequisites: SPE 1010 and SPE 1700 or permission of the instructor

This course is designed to acquaint students with relevant and current theoretical models of organizational communication systems and cultures. The course materials include formal and informal structures, group communication processes, external organizational communication systems, informational effectiveness and ethical considerations.

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### **SPE 2400-3 Introduction to Radio and Television Broadcasting (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

The evolution, organization and function of broadcasting. Introduction to some of the techniques employed in radio and television broadcasting including film techniques and the film industry as related to the broadcasting industry in the U.S.

### **SPE 2530-3 Voice Science: Pathology and Technology (3 + 0)**

Prerequisites: SPE 1010 or permission of instructor

This course is an introductory course in scientific vocabulary, acoustics and current technology in diagnosis and analysis of voice function. There will be exposure to pathological conditions and techniques for remediating those conditions.

### **SPE 2710-3 Team and Group Communication (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

This course is designed to teach students the dynamics of group process and the special skills required to communicate successfully with many types of difficult group members.

### **SPE 2720-3 Nonverbal Communication (3 + 0)**

Prerequisite: SPE 1010 and SPE 1700

Designed to explore the nature of the so-called "silent language" of the human communication process, this course focuses on the classes of nonverbal communication, their impact on human perception, patterned behavior in groups, organizational systems and cultures.

### **SPE 2730-3 Communication and Conflict (3 + 0)**

Prerequisite: SPE 1710 or permission of instructor

This course develops strategies for managing conflict dynamics in communication interactions at work, home and school. Effort is made to pinpoint individual communication conflict styles and to assess their effectiveness in conflict interaction.

### **SPE 2770-3**

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**(WMS 2770) Gender and Communication (3 + 0)**

Prerequisite: SPE 1010/SPE 1710 or permission of instructor; ENG 1010 and satisfaction of Level I Communication requirement

This course is designed to test the students' ability to inventory their own culturally derived gender communication patterns, especially those in public speaking; analyze those patterns, contrast their own resulting functional and dysfunctional gender communication behaviors; relate those behaviors and their outcomes to their personal work and professional lifestyles; and formulate and test new behaviors based on increased gender communication awareness. Credit will be granted for only one prefix: SPE or WMS. (General Studies-Level II, Arts and Letters)

**SPE 3010-3 Advanced Public Speaking (3 + 0)**

Prerequisites: SPE 1010 and SPE 2110 or permission of instructor

Preparation, presentation and appraisal of speeches on contemporary subjects. Advanced inquiry into rhetorical

analysis, the intensification of ideas and style, with emphasis upon persuasive speaking. Attention will be given to specialized forms of public address.

**SPE 3050-1 Intercollegiate Forensics (0 + 2)**

Prerequisite: SPE 1010 or permission of instructor

A course for those students participating extensively in intercollegiate speech activities. A maximum of four credits in this course may be applied toward a degree.

**SPE 3080-3 Great American Speakers (3 + 0)**

Prerequisites: SPE 1010 and satisfaction of Level I General Studies course requirements

A study of selected American speakers, this course critically examines the primary theses developed in major American speeches. This critical analysis includes a rhetorical examination of the rhetorical skills of the speaker based on the persuasive models of Aristotle, Burke and Griffin, etc. Estimates of the influence of such great speeches on public policy will be surveyed as a measurement of the success of such oral discourse. (General Studies-Level II, Arts and Letters)

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### **SPE 3090-3 Argumentation and Advocacy (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

Acquaints the student with the complexity of social problems, methods of research, methods of logical analysis and development, construction of briefs and techniques of refutation. Includes practice in preparation and oral analysis of selected arguments.

### **SPE 3100-3 Business and Professional Speaking (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

This course focuses on the processes involved in effective speaking in business and industry with emphasis on preparing and delivering presentations to organizational audiences including the use of audio-visual materials as they relate to the communication process in organizations at the interpersonal level. Students will polish communication skills in preparation for some of the unique speaking situations found in modern organizations.

### **SPE 3110-3 Organizational Leadership (3 + 0)**

Prerequisite: SPE 1010 and either SPE 2110 or SPE 2710

This course is designed to acquaint students with the major theories of organizational leadership and the functional dimensions of leadership strategy in specific organizational systems.

### **SPE 3130-3 Conference Leadership (3 + 0)**

Prerequisite: SPE 1010 and SPE 3110, or permission of instructor

This course provides students with knowledge of the theories of group task and process behaviors and the practical application of that theory in the actual production of a conference. The course focuses on the motivation of volunteers and the appropriate styles of leadership when authority is not granted to the conference director.

### **SPE 3160-3 Communication in Politics (3 + 0)**

Prerequisites: SPE 1010 or permission of the instructor

This course acquaints students with the complexities of communication issues and strategies used in and by a variety of governmental bodies. This course emphasizes communication patterns in government institutions, the

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role and strategies of public influence and change on policy creation, the nature and ethics of campaign strategies and propaganda tactics, the responsibility of media in public decision-making, and the impact of communication leadership and group dynamics on the resolution of political and social issues.

**SPE 3170-3 Interpersonal Negotiation (3 + 0)**

Prerequisites: SPE 1700 and either SPE 1710 or SPE 2710

This course is designed to teach students the theory and specific negotiation skills needed for resolving interpersonal group and organizational conflict. These skills include identification of conflict issues, fractionating of issues, positioning methods, questioning tactics, measuring negotiated consequences, identifying a negotiated style, managing difficult people, mediating theory and tactics, third-party interventions and negotiating frames. Both lecture/discussion and simulated case studies are used to illustrate negotiation principles.

**SPE 3300-3 Voice Science: Phonetics and Voice and Diction (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

Applied instruction in the International Phonetic Alphabet including the science of speech sounds. Particular emphasis is placed on the use of phonetics, and the improvement of acceptable standards of usage in General American Speech.

**SPE 3430-3 Radio-Television Announcing (3 + 0)**

Prerequisites: SPE 2400 and SPE 3300

An advanced course in "on air" operations designed to meet the specific needs of the telecommunications broadcaster and the radio-television-film announcer. Instruction designed to develop pleasing and persuasively effective verbal/vocal/nonverbal communication as a means for improving a variety of telecommunications presentations will be included. Special emphasis will be placed on standard American usage of speech and language particularly as applied to the International Phonetic Alphabet.

**SPE 3440-3 Television Production (3 + 0)**

Prerequisite: SPE 2400 or permission of instructor

This course is an introduction to television production, operation of broadcast studio equipment, vocabulary and experience in the direction of

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multicamera productions. Specific attention will be focused on preproduction, including identification of audience by age, sex and culture; production; and post-production activities and procedures. Students will participate in a variety of projects and production capabilities.

**SPE 3450-3 Broadcast Journalism: Radio (3 + 0)**

Prerequisites: SPE 1010, ENG 1010, JRN 1810, JRN 1820, JRN 2820, JRN 2860, or permission of instructor

This course is an introduction to radio news writing. It teaches students how broadcast news copy differs from print journalism. It involves learning the techniques of writing in the strict broadcast style used in newsrooms across the nation.

**SPE 3470-3 Evolution of Cinematics as Art (2 + 2)**

Prerequisite: SPE 2400 or permission of instructor

A course designed to explore the development of selected historical, technical and aesthetic elements of filmic expression from the point of view of the creative and perceptual process emphasizing the history of the motion picture as presented through the films and ideas of several important cinematographers.

**SPE 3480-3 Workshop in Radio Production (1 + 4)**

Prerequisites: SPE 2400 and SPE 3430, or six hours of equivalent broadcasting courses and/or experience, or permission of the instructor

This course provides students with an opportunity to produce radio programs for audiences including women, children, men, ethnic groups, occupational groups, organizations, etc., for use on commercial and/or educational radio.

**SPE 3500-3****(BIO 3500) Anatomy and Physiology of the Speech and Hearing Mechanism (3 + 0)**

Prerequisite: BIO 2310 or permission of instructor

Corequisite: BIO 3501 or SPE 3501

This course examines the anatomy and physiology underlying human communication. Specific systems studied include respiration, phonation,

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articulation, audition and the nervous system. Students explore how anatomical and physiological deficits relate to communicative pathology.

### **SPE 3501-1**

#### **(BIO 3501) Anatomy and Physiology of the Speech and Hearing Mechanism Laboratory (0 + 2)**

Prerequisite: BIO 2310 or permission of instructor

Corequisite: BIO 3500 or SPE 3500

This laboratory provides experiential learning to support the content presented in SPE/BIO 3500, Anatomy and Physiology of the Speech and Hearing Mechanism.

### **SPE 3520-3 Language Acquisition (3 + 0)**

Prerequisites: SPE 1010 or permission of instructor

This course allows students to investigate theories of language development. The inter-relationship among linguistic, cognitive and social competencies in communicative development will be explored. Students will gain knowledge concerning the diversity of normal communicative development found in a pluralistic society.

### **SPE 3540-3 Phonetics and Language Sample Analysis (3 + 0)**

Prerequisite: SPE 3520

Corequisite: SPE 3520

Designed to provide students in communication disorders with the skill in language sample analysis needed to work with clinical populations. Students will gain an understanding of the science of speech sounds and utilize the International Phonetic Alphabet in transcribing spoken language. Students will analyze oral language samples using semantic, syntactic, pragmatic and phonological analysis procedures.

### **SPE 3570-3 Diagnostic Procedures in Communication Disorders (3 + 0)**

Prerequisites: SPE 3520, SPE 3600 or permission of instructor

This course introduces the purposes and principles of diagnostic assessment in communication disorders. Students learn to examine and evaluate various

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assessment procedures based on reliability and validity issues. This course addresses clinical interviewing, test administration and report writing skills.

### **SPE 3580-3 Speech Disorders: Articulation and Stuttering (3 + 0)**

Prerequisites: SPE 3500 and SPE 3540 or permission of instructor

This course considers common speech disorders and the development of articulation and phonological skills. It covers etiological factors, assessment techniques, and intervention principles used to manage articulation and stuttering deficits. It also introduces augmentative and alternative communication.

### **SPE 3590-3 Classroom Intervention for Communication Disorders (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

This course is for students of speech communication, education, psychology, rehabilitation, nursing and related areas. It examines speech, language and hearing disorders that affect school-age children. It emphasizes classroom strategies to achieve communicative growth in children and adolescents who have speech, language and hearing problems.

### **SPE 3600-3 Audiology I (3 + 0)**

Prerequisites: SPE 1010 or permission of instructor

This course is designed as a study of acoustics, the auditory system, perception of acoustic stimuli and basic audiometric assessment. The student will be introduced to a number of peripheral and central auditory disorders as well.

### **SPE 3610-2 Audiology II (2 + 0)**

Prerequisite: SPE 3500 and SPE 3600

This course focuses on advanced anatomy of the inner ear and central auditory nervous system, introduction of the peripheral and central vestibular system, specialized diagnostic tests which evaluate pathologies within the auditory and vestibular systems, and hearing conservation measures appropriate to the newborn nursery, schools and industry. This course is recommended for all communication disorders majors, especially those intending to apply to graduate school.

### **SPE 3620-3 Aural Rehabilitation (3 + 0)**



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Prerequisites: SPE 3500 or SPE 3600 or permission of instructor

This course is designed to acquaint the student with the responsibilities of an audiologist or speech-language pathologist specializing in habilitation/rehabilitation of clients of all ages with hearing loss. This course focuses on the heterogeneity of the population being served and the components of aural rehabilitation.

### **SPE 3740-3 Psychology of Communication (3 + 0)**

Prerequisites: SPE 1010 and SPE 2110, and satisfaction of Level I General Studies course requirements

This course explores the critical examinations of the psychological factors underlying speech comprehension, the speaker's adjustment to an audience, the listener's sets and responses, and the attitudes, beliefs, and predispositions of hearers toward the appeal of the human communication. This is not a psychology course. (General Studies-Level II, Arts and Letters)

### **SPE 3760-3 Cultural Influences on Communication (3 + 0)**

Prerequisites: SPE 1010 and either SPE 1710 or SPE 2710 or SPE 2720, and satisfaction of Level I General Studies course requirements

This course leads students to an understanding of their own cultural backgrounds and communication patterns, as well as those used by "cultural strangers." The ultimate goal of the course is to broaden students' perspective of life and people and to expand their capacity to adapt to a changing world by exploring perceptual differences and verbal and nonverbal cultural communication similarities and differences. (General Studies-Level II, Arts and Letters, Multicultural).

### **SPE 3770-3 Family Communication (3 + 0)**

Prerequisites: SPE 1710 or SPE 2710

This course is designed to assist students to better understand and improve interpersonal communication processes in families, including dual-career communication problems, personality patterns, family group roles and their impact on interaction, verbal and nonverbal messages in family contexts and managing family interpersonal conflict and change.

### **SPE 3800-3 Instructional Methods for Speech Teachers and Creative Speech (2 + 2)**

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Prerequisites: junior standing in the speech education program and/or successful completion of the process for becoming a bona fide speech major, and acceptance into the teacher education program, or permission of instructor

A comprehensive course designed to provide prospective elementary or secondary teachers of speech to recognize various speech activities as an effective way to develop language and improve communication. Different ways of stimulating creativity will be explored.

### **SPE 4050-2 Advanced Intercollegiate Forensics (0 + 4)**

Prerequisite: permission of instructor

For students participating extensively in competitive intercollegiate speech activities. A maximum of eight hours credit may be applied toward a degree.

### **SPE 4080-3 Rhetorical Criticism of Public Address (3 + 0)**

Prerequisite: SPE 1010 and junior/senior standing, or permission of instructor

This course focuses on the historical and critical methodologies for analyzing rhetorical efforts, both from the points of view of an intellectual discipline and as a practical art in a democratic society.

### **SPE 4090-3 Classical Rhetoric (3 + 0)**

Prerequisites: SPE 1010 or permission of instructor, and satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course acquaints students with the classical traditions of rhetorical theory including the presophists, sophists, Aristotle, Plato, Isocrates, Cicero, Quintilian, etc. Standards of "ethical persuasion" and the responsibilities of rhetorical persuasion are examined in-depth. (Senior Experience)

### **SPE 4100-3 Techniques of Persuasion (3 + 0)**

Prerequisite: SPE 3090 or permission of instructor

A critical investigation of the factors that influence individuals and groups through the media of persuasive rhetor-

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ical campaigns. Course involves specific investigation and analysis of twentieth-century persuasive campaigns. Students will have opportunities to develop persuasive campaigns in various rhetorical areas.

### **SPE 4120-3 Freedom of Speech (3 + 0)**

Prerequisites: SPE 1010, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course is a study of the historical and social influences with inquiry into the legacy of our inherited rights to free speech. Also, to examine and refine the First Amendment's clause on freedom of speech and the press, threats to this freedom and special inquiry into contemporary issues and cases. (Senior Experience)

### **SPE 4160-3 Advanced Organizational Communication (3 + 0)**

Prerequisites: SPE 2160 and SPE 3170 or permission of instructor

This course acquaints students with organizational communication structural designs, as well as methods/models for analyzing/auditing the effectiveness of such organizational communication systems. The course also addresses implementing organizational communication change through communication processes.

### **SPE 4440-3 Advanced Television Production (3 + 0)**

Prerequisite: SPE 3440

This is an advanced course in television production with projects in both studio and field. Specific attention focuses on preproduction, production and postproduction activities of advanced program production. Students will participate in a variety of projects and production capacities.

### **SPE 4450-3 Broadcast Journalism: Television (3 + 0)**

Prerequisite: SPE 3450

This course is an introduction to television news writing. It teaches students how to write for the visual medium. It includes "on-air" stand-up reporting, newscast writing and writing to visuals and videotape. It prepares students for advanced level courses in broadcasting.

### **SPE 4480-3 Seminar Practicum in Broadcasting (0 + 6)**

Prerequisite: SPE 3480 or permission of instructor

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An advanced course in direct broadcast production that shows the student an opportunity to supervise a variety of production elements through first-hand experience as a producer/director. Open only to junior and senior level broadcast/telecommunications students. This course may be repeated and a student may receive a maximum of nine hours of credit that can be applied toward a degree.

**SPE 4490-3 Effects of Radio-Television on Contemporary Life (3 + 0)**

Prerequisite: SPE 2400 or permission of instructor

Corequisite: Senior standing

This course is a study of some significant effects of radio-television-film broadcasting, telecommunications, and the electronic mass media on twentieth century lifestyles and society in America and the world. Particular emphasis will be given to some "key" indicators of effects including demographics, current research, access, program content, role models and emerging profiles of the new technologies. (Senior Experience)

**SPE 4500-3 Clinical Methods in Communication Disorders (2 + 2)**

Prerequisites: SPE 3520 and SPE 3600 or permission of instructor

Corequisite: Senior standing

This course examines intervention principles and practices in speech-language pathology and audiology. Students will participate in classroom and practicum-based instruction. (Senior Experience)

**SPE 4510-3 Language Disorders (3 + 0)**

Prerequisite: SPE 3520 or permission of instructor

This course examines language disorders and how neurological, environmental and sociocultural factors contribute to them. The course considers principles of assessment and intervention in dealing with language disorders, with particular emphasis on child language disorders and their effects.

**SPE 4550-2-6 Clinical Practicum and Seminar in Communication Disorders (1 + 2,4,6,8,10)**

Prerequisites: SPE 4510 or SPE 3590; and SPE 3600, or permission of instructor

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This course provides students in communication disorders and education with the opportunity to explore clinical issues and obtain supervised practicum experiences. This course may be repeated for up to 6 hours of credit.

**SPE 4570-2 Medical Aspects of Communication Disorders (2 + 0)**

Prerequisites: SPE 3500, SPE 3600, and SPE 4510, SPE 3580 or permission of instructor

This course emphasizes nervous system organization and function as it relates to communicative pathology. Students will be introduced to an interdisciplinary approach to the evaluation and treatment of persons with various organic communication disorders. Topics such as aphasia, traumatic brain injury, motor-speech disorders and a variety of audiological disorders will be covered.

**SPE 4700-3 Communication and the Trainer (3 + 0)**

Prerequisite: SPE 1010, SPE 1700, SPE 1710, SPE 2710 or permission of instructor

This course is designed to teach students how to translate their liberal arts background into on-the-job communication training programs using interpersonal and group dynamics skills. Actual demonstrations via video will be used, allowing students the opportunity to practice and evaluate their program design and training communication style in front of real audiences.

**SPE 4760-3 Communication and the Elderly (3 + 0)**

Prerequisite: SPE 1700 and SPE 1710

This course is designed to investigate the particular communication patterns and problems of the aged. It focuses on culturally communicated attitudes toward elderly persons via media, marketing, and institutions, as well as specific communication issues of the aged such as the communication of intimacy, friendship, control, interaction in work environments, home life, retirement and death.

**SPE 4790-3 Communication Theory Building and Research Methodology (3 + 0)**

Prerequisites: SPE 1700, THE 3200, and SPE 3740

Corequisite: Senior Standing

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This course is designed to provide students the opportunity to extend and apply their understanding of Social Science theory and Communication theory specifically. Students will develop original theories in communication research from generation to verification. (Senior Experience)

## **Surveying and Mapping**

### **SUR 1510-4 Surveying I (2 + 4)**

Prerequisite: MTH 1410 or permission of instructor

This is an introductory course in elementary surveying. Students acquire a knowledge of the theory of measurements, methods of collecting and recording data, reduction of observations of angles, directions, distances and differences in elevation; the computation and adjustment of traverses; the use of data collectors and interfacing with CAD software; construction stakeout employing coordinate geometry and CAD output; and the methods of computing coordinate geometry and areas. Field work includes use of transits, total stations, electronic distance meters, surveyors' tapes, differential levels and data collectors.

### **SUR 1520-4 Construction Surveying (2 + 4)**

Prerequisites: high school or college trigonometry or MTH 1400, CET 1100 or permission of instructor

This is an introductory course designed for the engineering technology student. The course covers surveying instrumentation, utilization of maps and plans, understanding and using working drawings, computing coordinates, areas, earthwork quantities (volumes), monitoring construction for line and grade, performing as-constructed surveys and mapping and introducing boundary and legal surveying.

### **SUR 2520-4 Surveying II (2 + 4)**

Prerequisite: SUR 1510 or permission of instructor

This course is designed to cover the introduction to control surveying, state plane coordinate systems, construction surveying, legal and boundary surveying and large scale topographic mapping for engineering and architectural projects. The student is introduced to optical micrometer and electronic theodolites, precise levels and electronic distancers. Laboratory assignments will cover astronomic azimuth observations, circular and parabolic curves, earthwork surveys, control surveying and topographic mapping.

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**SUR 2530-4 Route Surveying (2 + 4)**

Prerequisites: SUR 2520, SUR 2620 or permission of instructor

This course is designed to expand the concepts on circular and parabolic curves and earthwork introduced in SUR 2520. Included is the mathematics of spirals, unequal tangent vertical curves, mass diagram of earthwork quantities, alignment profile and slope staking, large scale site mapping, alignment and design and other surveying techniques required for highways, pipelines, tunnels, transmission lines, water lines, sewers and canals, etc. This course will introduce terrain modeling for site distances and environmental concerns.

**SUR 2540-3 Fundamentals of GPS Surveying (1 + 4)**

Prerequisites: MTH 1400, SUR 1510 or permission of instructor

This course introduces the student to the technology of the Global Positioning System (GPS). The mechanics and elementary mathematics of GPS point positioning technology are presented. The laboratory sessions will introduce the operational concepts of planning, reconnaissance and data collection. Post mission processing and computer software for static, rapid static and real time kinematic surveying will be discussed. (*Alternate years\**)

**SUR 2550-3 Surveying Computations (2 + 2)**

Prerequisite: SUR 2520 or permission of instructor

This is an introductory course on converting survey field observations/data into a form suitable to the end user. Students apply principles and precepts learned in courses of mathematics and surveying to surveying problems, develop analysis techniques and perform those computations required for plane surveying problems encountered by the surveyor, land developer and civil engineer. Traverse computations, subdivision computations, route surveying computations, etc., are addressed.

**SUR 2620-3 Survey Drafting - CAD (0 + 6)**

Prerequisite: MTH 1400 or permission of instructor

This course is a study of map symbols, contours, sources for map data and methods used in map plotting.

Emphasis is placed on utilizing Computer Aided Drafting (CAD) tools. The subjects include importing and exporting files from other sources, creation of map symbol libraries, menus and table layout, use of multiple layers and

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templates, digitizing, maintaining coordinate bases and orientation, use of map projections and datums and use of GIS/LIS files.

### **SUR 2700-3 Geodesy I (3 + 0)**

Prerequisites: SUR 2550, PHY 2311, PHY 2321 or permission of instructor

This is an introduction into the science of geodesy. The course presents an overview into the theory of surveying in which the size and shape of the earth must be addressed. The history of geodesy and the classical survey procedures to determine latitude, longitude, elevation and the earth's gravity field are presented. The underlying theory of instrumentation and the application of physical theory is discussed. (*Alternate years\**)

### **SUR 2800-3 Public Land Survey System (3 + 0)**

Prerequisite: SUR 2520 or permission of instructor

This course describes the survey procedures contained in the current *Manual of Surveying for the Public Lands of the United States (1973)*. The history, design and planning of the rectangular survey system, original surveys, resurveys, independent and dependent surveys, protection of bona-fide rights, mineral surveys, special surveys and riparian rights are addressed. The importance of the official plats and field notes are presented. (*Alternate years\**)

### **SUR 3100-3 Survey Data Adjustment and Analysis I (3 + 0)**

Prerequisites: MTH 2140, MTH 2410, PHY 2331, PHY 2341, SUR 2550 or permission of instructor

This course provides a foundation in the basic principles of computational methods used to adjust and analyze survey observations employing statistical principles and least squares theory. The problems include adjustment of triangulation, traverses, trilateration and vertical networks by condition and/or observation equations. (*Alternate years\**)

### **SUR 3120-3 Survey Data Adjustment and Analysis II (3 + 0)**

Prerequisite: SUR 3100 or permission of instructor

This course is a continuation of SUR 3100 and is designed to provide a foundation in the principles of design and adjustment of geodetic networks. The concepts of design, geometry, preanalysis, redundancy, adjustment, confidence regions, test on variance factor, goodness of fit test, detection of outliers and position accuracy standards are presented. Advanced



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adjustment techniques for special geodetic problems are presented. (*As needed\**)

### **SUR 3150-2 Astronomy for Surveyors (2 + 0)**

Prerequisite: SUR 2520 or permission of instructor

This is an introductory course on applying astronomical observations to surveying and mapping projects. Students acquire knowledge about positional determination by astronomical observations and determining the direction (azimuth, bearing) of lines on the earth's surface from astronomic observations. The students compute the azimuth of a line from actual survey observations. (*Alternate years\**)

### **SUR 3200-3 Government Records and Regulations (2 + 2)**

Prerequisite: SUR 2800 or permission of instructor

The course introduces the subject of sources of official and legal records pertaining to land surveying, boundary surveying and land mapping projects. The student will visit the offices of the Colorado State Board of Registration for Professional Engineers and Professional Land Surveyors, county clerk and recorder, assessor, city or county planning department, zoning department, county surveyor, etc., to assess current regulations, sources of records and record keeping. The student will visit a title abstract company to learn about land title searches for preparing title commitments. The student will write assessments and proposals, with justification and cost recovery analysis, for improving the offices visited. (*Alternate years\**)

### **SUR 3210-2 Case Studies and Legal Research (2 + 0)**

Prerequisite: SUR 3200 or permission of instructor

This course introduces the student to the subject of legal research in a law library. The student performs legal research on topics at the local law library and in computer data bases. Case studies will be reviewed and used as the research projects. Students will write reports based on their research. (*As needed\**)

### **SUR 3220-2 Real Property Descriptions (2 + 0)**

Prerequisite: SUR 3200 or permission of instructor

This course addresses writing real property legal descriptions for deeds, easements and rights-of-way. Emphasis is placed on the structure and order of the elements in the description and on avoiding the common mistakes of

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language, construction and terminology in order to avoid ambiguities in the intent of the instrument. A study of the interpretation of the rules to deal with conflicts and ambiguities in instruments is presented.

### **SUR 3300-3 Photogrammetry (2 + 2)**

Prerequisites: SUR 2530, SUR 2550 or permission of instructor

This course introduces the science of photogrammetry. The geometry of the photographic camera, vertical photography, aerial mapping camera, flight planning, project planning, supporting field surveys and field classification and targeting are emphasized. Photogrammetric plotters and comparators are discussed. An introduction to digital image scanning and GPS synchronization are presented. The application of photogrammetry to engineering and surveying mapping programs are discussed. (*As needed\**)

### **SUR 3310-3 GIS/LIS Data Base Design (2 + 2)**

Prerequisites: SUR 2520, GEG 2250 or permission of instructor

The course addresses the design and creation of a Cadastral based Geographic and Land Information System (GIS/LIS) as used by local governments and the relationship of those systems to the practice of surveying. Emphasis will be on the technical requirements and structure needed for an effective Cadastral based GIS/LIS. In addition, the legal issues, common policies, local standards and national standards that are important to the professional surveyor who is involved in GIS/LIS will be covered. (*As needed\**)

### **SUR 3400-2 Professional Ethics and Critical Reasoning (2 + 0)**

Prerequisite: SUR 3200 or permission of instructor

This course addresses professional codes of ethics and professional practice. These codes are reviewed and evaluated through classroom discussion. Students will prepare and deliver oral presentations on selected topics. The student will prepare justifications and arguments, ranking the discussion points/issues and discriminating between options and evidence based on the ranking. (*As needed\**)

### **SUR 3500-3 Map Projections and Coordinate Systems (3 + 0)**

Prerequisite: SUR 2550 or permission of instructor

This is an in-depth course addressing the popular conformal map projections employed in surveying and mapping programs. The theories for the Lambert

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conformal conic, Mercator, transverse Mercator, oblique Mercator and stereographic projections are presented. Designing the projection system, transformation between plane coordinates and geodetic positions and the conversion of survey data to map projection data are emphasized. The use of local conformal map projections will be presented. (*Alternate years\**)

**SUR 3540-3 Boundary Law I (3 + 0)**

Prerequisite: SUR 2520 or permission of instructor

This course introduces the concepts of boundary control and legal principles. Subjects addressed include proportionate measurement, rights in land, junior/senior title rights, retracement of original surveys, deed first/survey first, common and case law, ranking/prioritizing evidence, controlling monuments and corners, errors in legal descriptions and plats and case studies.

**SUR 3660-3 Land Information Systems (3 + 0)**

Prerequisite: SUR 2520

This course is designed to provide instruction in the fundamentals of the procedures and standards for a multipurpose cadastre. It includes the completion of a practical project using state-of-the-art computer-aided drafting.

**SUR 4100-3 Land and Survey History (3 + 0)**

Prerequisite: SUR 3200 or permission of instructor

This course is a study of the history of surveying and mapping professions in the United States. The course will cover the early colonial surveys, the development of the U.S. Public Land survey system, the great exploratory surveys of the nineteenth century, the grants for railroads, wagon roads, irrigation canals, etc. The lectures will include the introduction of many of the personnel involved and the development of technology. A term paper or research project is required and will be presented at an approved technical meeting or published in a professional journal. (*Alternate years\**)

**SUR 4110-4 Advanced Cadastral Surveying (3 + 2)**

Prerequisites: SUR 3400, SUR 4100 or permission of instructor

This course is a continuation of SUR 2800. The student will be assigned to solve professional problems encountered in Cadastral (Public Domain) surveying. The topics include dependent and independent resurveys, mineral

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surveys, junior/senior rights, land area relationships, multiple corners, the three mile method, grant boundaries, segregation surveys, hiatus and overlaps, partitioning of riparian rights and the subdivision into aliquot parts. *(As needed\*)*

### **SUR 4120-2 Review of State Law (2 + 0)**

Prerequisite: SUR 4110 or permission of instructor

This course is an introduction and discussion of the state laws in Colorado and the neighboring states pertaining to the practice of surveying. The topics include: the right-of-entry, subdivision regulations, filing/recording corner records, records of survey and affidavits; professional conduct, authority of the state board of registration; and interaction with various state regulatory agencies. *(As needed\*)*

### **SUR 4300-3 Geodesy II (3 + 0)**

Prerequisites: SUR 2700, SUR 3100 or permission of instructor

This course is a continuation of SUR 2700. The subjects discussed are the earth's motion and reference coordinate system, earth's deformation in time and tectonics, geodetic positional astronomy, earth's gravity field, crustal motions and precise terrestrial geodetic measurements. The student will prepare a term paper on a geodetic topic approved by the instructor. *(As needed\*)*

### **SUR 4310-3 Survey Data Management (2 + 2)**

Prerequisites: SUR 2700, SUR 3100 or permission of instructor

The topics covered in this course include data collection techniques, computations, data standards and error depiction of survey data for Land Information Systems (LIS). Computer software is developed for the purpose

of managing record survey data in networks utilizing least squares adjustments. The student will learn to identify the data that are required by these software systems and how to manage the collection, depiction and reliability of the data base. Each student will prepare a term paper investigating an application for the use and management of land and survey data. *(As needed\*)*

### **SUR 4320-4 Geodetic Survey Methods (2 + 4)**

Prerequisites: SUR 2530, SUR 2700 or permission of instructor

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This course is designed to apply precise surveying field procedures to surveying problems encountered in route surveying and geodesy. The students will employ precise surveying instrumentation and methods. The problems include surveys for geodetic, hydrographic and mine surveys. Global positioning satellites, gyrotheodolites and inertial positioning systems are introduced and discussed. Applications include municipal and regional geodetic networks supporting GIS/LIS, rapid transit systems, highways and streets, utility corridors, dam monitoring and industrial applications. The student will integrate the planning, implementation, data reduction, analysis and publication of the results for the survey assignments. (*Alternate years\**)

### **SUR 4400-3 Management of Land and Survey Themes in a Cadastral Based GIS/LIS (2 + 2)**

Prerequisites: GEG 2250, SUR 4320, GEG 4850 or permission of instructor

This course is designed to be a "capstone" experience for the surveying student who has elected GIS/LIS as an area of emphasis. It is intended to give the advanced surveying student hands-on experience in dealing with real world GIS/LIS data sets. Emphasis will be on the acquisition and use of a variety of spatial data sets and the application of surveying techniques to quantify and, when appropriate, to improve a variety of spatial data that are available in different coordinate systems and map projections and the techniques the practicing surveyor will need to know in order to appropriately integrate these data. (*As needed\**)

### **SUR 4500-3 Construction Measurements (2 + 2)**

Prerequisites: SUR 2550, SUR 2620 or permission of instructor

This course introduces the student to the methods of translating engineering and architectural plans into field surveys for construction work and post-construction mapping for payments. The topics include engineering measurement tolerances, vertical and horizontal differential tolerances, terrestrial photography and control, deformation studies and analysis, safety and hazardous waste environment. (*Alternate years\**)

### **SUR 4530-3 Site Planning (3 + 0)**

Prerequisite: SUR 2530 or permission of instructor

The course introduces the activities and functions performed by design professionals (surveyors, engineers, architects, landscape architects and planners) in land development. The interaction of land use planning, environmental evaluation and zoning are discussed. The federal, state, regional and local land use controls are presented. Guest speakers present

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lectures on their activities and responsibilities in site planning. Emphasis is placed on the role of geographic information systems and land information systems in the site planning process. (*Alternate years\**)

**SUR 4540-3 Boundary Law II (3 + 0)**

Prerequisite: SUR 3540 or permission of instructor

This course is a continuation of SUR 3540 and addresses, in detail, the subjects of evidence and procedures for determining real property boundaries. Statutes and case law, conflicting evidence, proper methods and procedures for collecting evidence, riparian rights, surface and subsurface rights and eminent domain are studied. Boundary agreements and legal instruments prepared by the land surveyor are introduced. The role of the land surveyor as an expert witness is presented.

*\*Contact the Civil Engineering Technology Department at 303-556-3227 or 303-556-2508.*

**Social Work****SWK 1010-3 Introduction to Social Welfare and Social Work (3 + 0)**

Prerequisites: satisfaction of General Studies-Level I requirements

This course presents historical and philosophical perspectives of social work generalist practice and social welfare programs in response to human need and societal problems. An overview is provided of the social worker's role in the fields of health, mental health, family and child welfare, corrections, and on behalf of special groups such as ethnic minorities, the aged, the developmentally delayed, women and children, and gays and lesbians. (General Studies Course-Level II, Social Sciences)

**SWK 1020-1 Introduction to Agency Experience (1 + 0)**

Prerequisites: SWK 1010 or permission of the instructor

This course introduces students to social work roles in social service agencies. Concurrent volunteer experience in social work agency is required.

**SWK 2020-3****(WMS 2020) Social Work with Women (3 + 0)**

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This course views social work practice from a feminist social work perspective. It examines issues of equality, social justice, social policy and practice for women in a patriarchal society.

**SWK 3010-4 Social Work Services for Children and Adolescents (4 + 0)**

Prerequisites: SWK 1010, SWK 1020, SWK 3050, SWK 3060 or permission of instructor

Policy issues and social work practice in the fields of child welfare, school social work and services for youth in trouble with the legal system are examined. Needs and rights of children are significant themes. Field visits to child-serving agencies are arranged.

**SWK 3020-4 Case Management in Social Work Practice (4 + 0)**

Prerequisite: SWK 1010, SWK 1020, SWK 3050, SWK 3060, or permission of instructor

Case Management is a coordinating service applicable to clients with multiple needs in any setting. The planning, organizing, motivating and evaluating functions and skills of the case manager are the major foci.

**SWK 3030-4 Social Work with the Aging (4 + 0)**

Prerequisite: SWK 1010, SWK 1020, SWK 3050, SWK 3060 or permission of instructor

The status, needs, problems and potentials of aging adults and their families are examined. Social policies and social work practice with the elderly are analyzed.

**SWK 3050-3 Human Behavior and the Social Environment I (3 + 0)**

Prerequisite: fulfillment of admission requirements to the baccalaureate Social Work Program or permission of instructor for non-majors

This course explores major biopsychosocial theories of human behavior and development-infancy to adolescence-with special sensitivity to the meaning of culture and diversity. Concepts such as social injustice, ecological perspective and empowerment are included.

**SWK 3060-3 Human Behavior and the Social Environment II (3 + 0)**

Prerequisite: SWK 3050 or permission of instructor

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This course explores major biopsychosocial theories of human behavior and development-adolescence to later adulthood-with special sensitivity to the meaning of culture and diversity. Concepts such as social injustice, ecological perspective and empowerment are included.

**SWK 3100-3 Child Welfare and the Law (3 + 0)**

Prerequisite: junior standing

This course will provide students with an overview of the legal framework for the delivery of child welfare services. It will include federal and state mandates relating to child abuse prevention and treatment, adoption and Indian child welfare. The role and processes of the court system will be discussed.

**SWK 3150-3 Social Work and Child Maltreatment (3 + 0)**

Prerequisite: junior standing

This course will provide students with the basic knowledge of intervention and treatment in situations of child maltreatment. This course will be taught from a family centered, culturally appropriate framework. Students will learn intervention models as currently practiced in county departments of social/human services.

**SWK 3200-3 Social Work with Urban Families (3 + 0)**

Prerequisite: junior standing

This course will provide students with an overview of the community's role in the prevention of child maltreatment. The course will be taught from an ethnically sensitive family and community centered practice framework. Students will learn about social issues and conditions that impact the safety and welfare of children, and intervention models currently proposed and/or in use locally and nationally that are intended to address these issues and ameliorate these conditions.

**SWK 3410-4 Generalist Practice I (4 + 0)**

Prerequisites: SWK 3050 or permission of instructor

This course is an introduction to generalist social work practice with diverse, urban populations-at-risk. Emphasis is on professional values, roles, relationships, and interviewing of individuals, families, groups, organizations and communities. Students develop an understanding of the problem-solving



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approach including initial contact, data collection, problem definition and goal setting.

### **SWK 3450-3 Mutual Aid Groups in Social Work ( 3 + 0)**

Prerequisites: SWK 1010, SWK 1020, SWK 3050, SWK 3060 or permission of instructor

Mutual aid groups aimed at empowerment of clients are often part of generalist social work practice to promote growth and change with individuals, families, groups, communities and organizations. Students will gain knowledge about types of groups, group leadership skills and experience group participation.

### **SWK 3780-3 Social Welfare Policy (3 + 0)**

Prerequisite: SWK 3050 or permission of instructor

Social welfare policies at the federal, state, and local levels form the context of direct practice. Social welfare legislation and programs are analyzed. Roles of advocate and lobbyist are examined. Past and present social policies are another focus of this course.

### **SWK 3790-4 Research in Social Work (4 + 0)**

Prerequisite: fulfillment of admission requirements to the baccalaureate Social Work Program or permission of instructor for non-majors. Students must complete MTH 1210 before enrolling in this course.

This course presents fundamental principles, methodology and techniques of social research as applied to social work practice issues. The course emphasizes concepts, skills and values essential to the design and implementation of a research project. Major themes are critical analysis and effective utilization of published research.

### **SWK 4010-4 Generalist Practice II (4 + 0)**

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790 or permission of instructor

Corequisites: SWK 4790

This course presents the assessment, intervention, evaluation, termination and follow-up stages of generalist practice with oppressed populations, i.e., diverse, urban populations-at-risk who have experienced historic and current social/economic injustice. This includes individuals, families, groups,

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organizations and communities. Crisis intervention and risk management in protective services are also explored.

**SWK 4250-3 Exploring Current Social Work Issues (3 + 0)**

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790 or permission of instructor

This course explores concepts and methods useful in assessing and addressing the impact of current social work issues on individuals, families, groups, organizations and communities. Populations at risk in urban settings will be discussed.

**SWK 4410-4 Advanced Cross-Cultural Social Work Issues (4 + 0)**

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790, SWK 4010 or permission of instructor

Emphasis is on empowerment of individuals, families, groups, organizations and communities who have experienced social and economic injustice. Students apply principles and perspectives essential to helping urban, populations-at-risk including African-American, Asian-American, Hispanic, Native-American and Anglo, through case examples. This course includes content on other minority groups such as the developmentally disabled, the aging, gays and lesbians, and women and children.

**SWK 4790-5 Professional Field Experience I (0 + 15)**

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790 and permission of instructor

Corequisite: SWK 4010

Students begin to develop readiness for professional employment while in a supervised placement in a social agency serving diverse populations-at-risk. Students integrate knowledge, skills, values and ethics within social work practice at the micro, mezzo and macro levels. Students work toward remediating conditions of social and economic injustice while in the agency field placement.

**SWK 4810-5 Professional Field Experience II (0 + 15)**

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790, SWK 4010, SWK 4790 and permission of instructor. Satisfaction of Level I and Level II General Studies course requirements and senior standing

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Corequisite: SWK 4850

Students demonstrate readiness for professional employment while in their supervised placement in a social agency serving diverse populations-at-risk. Students integrate knowledge, skills, values and ethics within social work practice at the micro, mezzo and macro levels. Students have the opportunity to experience beginning social work practice during this second semester of their field placement. Students work toward remediating conditions of social and economic injustice while in the agency field placement. (Senior Experience)

### **SWK 4850-3 Integrative Seminar (3 + 0)**

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790, SWK 4010, SWK 4790 or permission of instructor

Corequisite: SWK 4810

This course is designed to provide for discussion and critical analysis of students' theoretical knowledge and field work experience. Content focuses on nine areas: values and ethics, diversity, social and economic justice, populations-at-risk, human behavior and the social environment, social policy, research, practice and professional field experience. Students utilize current field placement experiences to complete assignments in each of these content areas.

## **Theatre**

### **THE 2200-3 Creative Dramatics for the Classroom Teacher (1 + 4)**

Prerequisites: SPE 1010 or permission of instructor

This course is designed to introduce methods for learning creative, problem-solving techniques and self-expression through dramatic activity. Particular emphasis will be placed on using drama as a teaching tool and will include improvisation, puppetry, literature and story dramatization.

### **THE 2210-3 Introduction to Theatre (3 + 0)**

Prerequisites: ENG 1010 or SPE 1010 or permission of instructor

This course presents a comprehensive survey of theatrical art providing an understanding of the living stage, its players and crafts and its place as a cultural force from antiquity to contemporary times. (General Studies-Level II, Arts and Letters)

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### **THE 2220-3 Techniques of Acting I (2 + 2)**

Prerequisite: THE 2210

This course provides an introduction to the basic principles of acting including improvement of voice, body and mind in the discipline of the theatre. Particular emphasis is placed on the principles of stage movement, improvisation and beginning scene work.

### **THE 2230-3 Techniques of Acting II (2 + 2)**

Prerequisite: THE 2210 and THE 2220, or permission of instructor

This course builds upon basic principles of acting, including improvisation, character development, stage movement, voice and scene work. Study topics include development of audition techniques, basic acting, television acting techniques and advanced scene work.

### **THE 2240-3 Introduction to Stagecraft (2 + 2)**

Prerequisite: THE 2210 or permission of instructor

This course provides an introduction to the principles, methods and materials of technical production including scenic design and construction, lighting design and practices, and costuming and sound practices.

### **THE 3200-3 Oral Interpretation (3 + 0)**

Prerequisite: SPE 1010 or permission of instructor

This course is a study of traditional and contemporary theories of interpretation of literature for the purpose of making the literature come alive for the listening audience and to improve oral communication skills. Students will present numerous oral performances for the application of techniques.

### **THE 3220-3 Stage Movement (2 + 2)**

Prerequisite: THE 2220 or permission of instructor

This course provides the student/performer with intense instruction in the use and training of the total human body for communication of artistic expression.

### **THE 3230-3 Acting III: Styles of Acting (2 + 2)**

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Prerequisite: THE 2210 and THE 2220 and THE 2230, or permission of instructor

This course is for advanced performers exploring basic "mask" acting techniques, as well as acting styles particular to Greek, Comedy of Manners, Farce, Shakespeare and Chekhov plays.

### **THE 3240-3 Theatre Improvisation Techniques (3 +0)**

Prerequisites: THE 2210 and THE 2220 and THE 2230 or permission of instructor

In this advanced performance course, students will explore basic improvisation acting techniques that enable the actor to develop concentration and spontaneity, build characterization, discover relationships and status, establish mood and feeling, sense shape and rhythm of scene and character, establish language and imagery, and build a play.

### **THE 3250-3 Introduction to Scenic Design and Theatre Lighting (2 + 2)**

Prerequisites: THE 2210 and THE 2240, or permission of instructor

The basic elements of scene design and stage lighting for theatrical productions with lectures on the different theories and styles. Students will complete several actual design and lighting projects. Emphasis will be placed on design procedures, color, projection, and equipment control, and utilization of facilities.

### **THE 3280-3 Stage Directing (2 + 2)**

Prerequisites: THE 2220 and THE 2240, or permission of instructor

This course provides an introduction to the principles and techniques of directing for the theater that includes the selecting, rehearsing, and performance of plays, and the presentation of student-directed projects.

### **THE 4200-3 Reader's Theatre (3 + 0)**

Prerequisites: THE 3200 or permission of instructor

This course is designed to enhance students' skills in performing a variety of material as members of an ensemble. Emphasis will be placed on material selection, script adaptation, rehearsal techniques, public performance, collaborative and creative problem solving, and evaluation. (Senior Experience)

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### **THE 4260-1 Theatre: Practicum I (0 + 2)**

Prerequisites: THE 2240 or permission of instructor

To provide the student with a direct practical experience in production of theatrical productions, thus augmenting the theoretical aspects of other theater courses. Course may be repeated for credit up to three times.

### **THE 4270-2 Theatre: Practicum II (0 + 4)**

Prerequisites: THE 2240 and THE 3280 and THE 4260, or permission of instructor

An advanced course in practical supervision and administration of theatrical productions. Students will direct, design, and manage the plays produced during the semester. Open only to junior- and senior-level students. Course may be repeated for credit up to three times.

## **Telecommunications**

### **TLC 2490-1-6 Internship in Radio-Television-Film-Mass Communications (0 + 3-18)**

Prerequisites: SPE 2400 and one additional three-hour course in the area of broadcasting or permission of instructor

Students will receive in-service training at selected radio, television, film or industrial stations or facilities within the greater Denver metropolitan community. The in-service training will vary according to the specific station or facility to which the student is assigned.

### **TLC 3490-1-15 Advanced Internship in Radio-Television-Film-Mass Communications (0 + 3-45)**

Prerequisites: TLC 2490

Students will receive advanced in-service training at selected radio, television, film, or industrial stations or facilities within the greater Denver metropolitan community. The advanced in-service training will vary according to the specific station or facility to which the student is assigned and the semester hours earned will also vary accordingly. This course may be repeated for four semesters and the total amount of semester hours earned overall in TLC 3490 will be determined by the department and the telecommunications advisor.

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### **Urban Studies**

#### **URS 1000-3 Introduction to Urban Studies (3 + 0)**

This course concentrates on: What are urban studies, and how do they affect the daily activities of all urban area residents and institutions? An introductory cross-disciplinary approach to the symbiotic relationships between people and their urban environments. Particular emphasis is placed on the role of transportation and housing as they influence urban patterns.

#### **URS 2000-3 An Inside Look at Urban Institutions (3 + 0)**

A course taught by representatives of private, local, state and federal institutions serving urban areas. These institutions are primarily concerned with housing, public services, transportation, planning and land use. The representatives will explain the functions of their particular institutions. The course will be coordinated by a faculty member.

#### **URS 2890-1-3 Urban Problems: Topics (1-3 + 0)**

The course will focus on current urban problems across the nation. Topics may include problems with pollution, water supply, urban sprawl, controlled growth and alternative forms of transportation.

#### **URS 3000-3 World Patterns of Urbanization (3 + 0)**

Prerequisite: URS 1000 or introductory course in SOC, HIS, ANT Non-U.S.

A survey and examination of major urbanized world regions and the development of urban systems. Emphasis will be on non-Western urbanization.

#### **URS 3280-3 Transportation: Issues and Policies (3 + 0)**

Prerequisite: URS 1000 or URS 2000, URS 2280, or permission of instructor

Involves students in the problems of moving people and goods in urban areas. Transportation networks will be analyzed in terms of individual neighborhoods, social needs and political decision making. Focus of the course will be Denver, Colorado.

#### **URS 3300-3 Housing: Issues and Policies (3 + 0)**

Prerequisite: URS 1000, URS 2000, or permission of instructor

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The focus of this course is on current social and economic issues regarding housing in America's urban areas. Topics covered include housing markets, components of housing costs, housing for low income, aged and minorities, housing standards and land development.

**URS 3500-3 Emerging Urban Political Systems (3 + 0)**

Prerequisites: Any six hours from PSC 3000, PSC 3020, URS 2000 or URS 2100

The course focuses on changes in the nature of urban governmental issues and processes. It includes the political organization of urban sprawl, new towns, exurbs, neighborhoods, regional governments and cities in political transition.

**URS 3510-3 Community Development and Planning (3 + 0)**

Prerequisites: nine hours of urban studies, sociology, or urban land use

This course focuses on planning and community development on a small scale. It will include community and institutional structures, and relationships to public policies, as well as funding agencies. Students will prepare a community development plan.

**URS 3710-3 Ethnic Groups in U.S. Cities (3 + 0)**

Prerequisites: URS 1000 plus three hours of political science, sociology, anthropology, or human geography

A social, economic, psychological and spatial investigation of ethnic groups in U.S. cities. Emphasis will be on the development of ethnic consciousness and its implication for economic, political, and cultural identity and residential-community maintenance.

**URS 3800-3 Applied Urban Research Methods (3 + 0)**

Prerequisite: URS 1000

A survey course designed to acquaint class participants with practical yet sophisticated methods of conducting applied urban research. Population census materials, archival and government records and other research techniques will be examined and utilized to develop individual and group projects.

**URS 3890-1-3 Readings in Urban Studies (1-3 + 0)**



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Prerequisites: 6-9 hours of urban studies plus permission of instructor and department chair

Provides an opportunity for students with a background in urban studies to pursue study on a specific topic. Will require frequent meetings between student and instructor.

### **URS 4500-3 Cities of the Future (3 + 0)**

The focus of this course will be to identify and evaluate alternate futures for cities. The course will explore the possible futures of urban politics, economics, employment, transportation and related areas.

### **URS 4890-4 Interdisciplinary Seminar (4 + 0)**

Prerequisites: nine hours in urban studies plus upper-division standing

Truly a team-taught course that will utilize the talents and expertise of several different professors addressing the same topic from their respective viewpoints. In viewing each concentration, three professors from such fields as psychology, land use, sociology, political science, urban studies, or history will jointly teach the course. Each time the seminar is offered a different area of concentration will be stressed.

## **Women's Studies**

### **WMS 1001-3 Introduction: Woman in Transition (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment placement tests

This course introduces the discipline of women's studies, the historical development of feminist thought, and the social, economic, and technological factors that have led to changing roles for women throughout the world; examines patterns of female socialization and psychological development within a sex/gender system that differentiates and stratifies human beings in the workplace, the law, the media, education, religion, health care and intimate relationships; and focuses analysis on race and class with particular attention to women of color and non-Western women cross-culturally. (General Studies - Level II, Social Sciences)

### **WMS 1130-2 Directed Readings in Women's Studies (1 + 2)**

This course permits the student to develop a basic knowledge of the materials and information involved in the discipline of women's studies. Through the selections read, students will develop an overview of the

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theories, history and scope of the literature in the discipline. This course offers individualized instruction and personal consultation with faculty.

### **WMS 1650-3**

#### **(HIS 1650) Women in U.S. History (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment placement tests

Women in U.S. History emphasizes women's changing roles in American history from 1607 to the present. The course covers the nature of women's work and their participation in the family, church, and reform movements in the colonial and republican periods and the nineteenth and twentieth centuries. This class presents the emergence of the modern woman in the twentieth century as well as the re-emergence of the women's movement. The course stresses both the changes and the continuities over the last 300 years. Credit will be granted for only one prefix: WMS or HIS. (General Studies-Level II, Historical)

### **WMS 2010-3 Women's Studies Research Methods (3 + 0)**

Prerequisite: WMS 1001

Designed to introduce students to the variety of methods, both interdisciplinary and disciplinary, that are used in conducting women's studies research, this course covers basic critical theory and major interdisciplinary methods adapted from the arts, humanities and social/behavioral sciences. Students also learn to employ interdisciplinary and disciplinary resources in the field, including electronic networks.

### **WMS 2020-3**

#### **(SWK 2020) Social Work with Women (3 + 0)**

This course views social work practice from a feminist social work perspective. It examines issues of equality, social justice, social policy and practice for women in a patriarchal society.

### **WMS 2100-3**

#### **(AAS 2100, CHS 2100, ICS 2100, NAS 2100) Women of Color (3 + 0)**

Prerequisite: minimum performance standard scores on the reading and writing preassessment tests; one of the following: AAS 1010, CHS 1000, ICS 1000, NAS 1000, or WMS 1001; or permission of instructor

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Though U.S. women share much in common, their differences are salient to a thorough understanding of all these women's experiences. Comparative analysis of these differences and their significance according to race, class and ethnicity are central to this course. The similarities among diverse groups of women will also be examined in order to better understand the complexity of women's lives. To focus the discussion, the course will cover work; families; sexuality and reproduction; religion; and politics. Credit will be granted for only one prefix: WMS or AAS or CHS or ICS or NAS. (General Studies-Level II, Social Sciences; Multicultural)

### **WMS 2340-1-3 Career and Personal Development (Variable Title) (1-3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

These courses will aim at self-improvement and career enhancement and will include such titles as: Women and Health, Women and Aging, Career Mobility and New Directions for Women. Check *Class Schedule* for each semester's offerings. May be repeated for credit as titles change.

### **WMS 2450-3**

#### **(ENG 2450) Women's Literature (3 + 0)**

Prerequisites: ENG 1010 and ENG 2100 for students enrolled through English; ENG 1010 and WMS 1001 for students enrolled through Women's Studies

This course introduces students to women authors; to images of women in fiction, drama and poetry; and to feminist literary criticism. Works by women of color are included. It has an historical perspective with most reading on British and United States women, particularly those writing in the eighteenth, nineteenth and twentieth centuries. The focus will be on the ways in which literature by women in any tradition is affected by their gender. Credit will be granted for only one prefix: WMS or ENG.

### **WMS 2650-3**

#### **(HIS 2650) Women of the West (3 + 0)**

This course examines women who inhabited the American frontiers from pre-Columbian times through the twentieth century. The lives and attitudes of Native American, Hispanic, African American, and native-born and European immigrant women are emphasized. Differences between images and the reality of women's lives are highlighted. Credit will be granted for only one prefix: WMS or HIS.

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**WMS 2770-3**

**(SPE 2770) Gender and Communication (3 + 0)**

Prerequisite: SPE 1010/SPE 1710 or WMS 1001 or permission of instructor, ENG 1010, and satisfaction of Level I Communication requirement

This course is designed to test the students' ability to inventory their own culturally derived gender communication patterns, especially those in public speaking; analyze those patterns, contrast their own resulting, functional and dysfunctional gender communication behaviors; relate those behaviors and their outcomes to their personal work and professional lifestyles; and formulate and test new behaviors based on increased gender communication awareness. Credit will be granted for only one prefix: WMS or SPE. (General Studies-Level II, Arts and Letters)

**WMS 2980-1-3 Cooperative Education Internship (Variable Credit) (0 + 3-9)**

Prerequisites: WMS 1001, sophomore standing, and permission of instructor

An entry-level work experience in a social service agency, nonprofit organization, or an agency of local, state, or federal government in an area related to women's studies. Supervised by professionals on the job in cooperation with women's studies faculty members. Recommended for minors and individualized degree programs.

**WMS 3050-3**

**(PSY 3050) Psychology of Gender (3 + 0)**

Prerequisite: PSY 1001 or WMS 1001

This course presents a survey of major contemporary approaches to gender, including a range of scientific and theoretical work. A constructionist approach is utilized to synthesize the views. The course then reviews several major areas of application including relationships, health, violence, workplace, and achievements. Credit will be granted for only one prefix: WMS or PSY.

**WMS 3070-3**

**(PSY 3070) Psychology of Sexual Orientation (3 + 0)**

Prerequisites: PSY 1001; 6 additional hours of psychology or permission of instructor

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This course explores psychological theory and research dealing with sexual orientation, with an emphasis on lesbian, gay and bisexual (LGB) identity. Topics include historical and theoretical frameworks, homophobia and heterosexism, origins of sexual orientation, LGB identity development and coming out, diversity, relationships and parenting, the role of community, and others. Credit will be granted for only one prefix: WMS or PSY.

### **WMS 3130-3 Advanced Readings in Women's Studies (1 + 4)**

Prerequisites: ENG 1020 and WMS 1001 or permission of instructor

This course permits the student to develop an in-depth knowledge of the materials and information in the discipline of women's studies. Through the selections read, students will learn the theory, history and scope of the literature in the field. This course offers individualized instruction and personal consultation with faculty. This course builds on WMS 1130, but students are not required to have taken WMS 1130 previously.

### **WMS 3180-3**

#### **(PHI 3180) Feminist Philosophy (3 + 0)**

Prerequisites: two philosophy courses and junior standing, or permission of the instructor

A course that examines traditional philosophical questions and positions in metaphysics, epistemology, and philosophy of science and explores how these questions and positions are rethought in twentieth-century Feminist Philosophy. Students will be expected to write a project paper in addition to other exams given in the course. Credit will be granted for only one prefix: WMS or PHI.

### **WMS 3220-3**

#### **(SOC 3220) Race, Gender and Ethnic Groups (3 + 0)**

Prerequisites: SOC 1010, WMS 1001, or permission of instructor, and satisfaction of all Level I General Studies course requirements

This course focuses on race, racism, sex biases and ethnic prejudices; their origins and characteristics; facts and myths about populations, including the social, psychological and cultural sources of discrimination; and bias and implications in current societal structures and institutions. Credit will be granted for only one prefix: WMS or SOC. (General Studies-Level II, Social Sciences; Multicultural)

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**WMS 3310-3**

**(CJC 3710) Women and the Law (3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

An examination of women's legal rights under the American legal system and Colorado law. This course deals with family law, Equal Employment Opportunity Acts, housing, credit and finance, welfare, social security, abortion, prostitution, rape and the ERA. Credit will be granted for only one prefix: WMS or CJC.

**WMS 3350-3**

**(SOC 3430) Sociology of Gender Roles (3 + 0)**

Prerequisite: SOC 1010 or WMS 1001; satisfaction of Level I and Level II General Studies requirements and senior standing

This course explores the historical and contemporary social, political and economic trends affecting the roles of women and men in society. The emphasis is on the historical, social, and cultural forces that have contributed to gender-role stereotyping in the United States and in other societies, and on the effects on individuals and the broader society in terms of maintaining and/or changing gender roles. Credit will be granted for only one prefix: WMS or SOC.

**WMS 3360-3**

**(HIS 3360) Women in European History (3 + 0)**

Prerequisites: HIS 1010, HIS 1020, or permission of instructor

This course provides an historical analysis of the role and contribution made by women in the development of Western civilization from Neolithic times to the present. Credit will be granted for only one prefix: WMS or HIS.

**WMS 3420-2-3 Women and the Humanities: Variable Topics (2-3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

These courses focus on women in relation to the humanities under such titles as: Concepts about Women in Western Civilization; Feminist Creativity; Rediscovered Women Writers; and Feminist Ethics. Check *Class Schedule* for

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each semester's offerings. This course may be repeated once for credit under different topics.

**WMS 3440-3 Women and the Natural Sciences: Variable Topics (3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

Women and the Natural Sciences covers such topics as Women's Biology; History of Women in Science; and Women and Geography. Check *Class Schedule* for each semester's offerings. This course may be repeated once for credit under different topics.

**WMS 3450-3 Women and the Arts: Variable Topics (3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

These courses focus on women in relation to the arts and covers such topics as Woman as Muse; Women Artists; Women Composers/Conductors/Performers; Women in Theatre; Women and Film; Women Subjects in Art. Check *Class Schedule* for each semester's offerings. This course may be repeated once for credit under different topics.

**WMS 3460-3 Women and the Social Sciences: Variable Topics (3 + 0)**

Prerequisite: WMS 1001, SOC 1010, or permission of instructor, and satisfaction of all Level I General Studies course requirements

These courses focus on women in relation to the social sciences under such titles as: Women and the Family; Women and Addictions; Women in the Criminal Justice System; Domestic Violence; Cross-Cultural Roles of Women; Women and Politics. Check *Class Schedule* for each semester's offerings. This course may be repeated once for credit under different topics.

**WMS 3480-3****(PSY 3480) Psychology of Women (3 + 0)**

Prerequisite: PSY 1001 or WMS 1001

This course presents the history and development of theories, research and concepts in the psychology of women, including a focus on mental health and illness, the pathology of women's social roles, biological bases of women's behavior, and feminist psychological theories and research. Credit will be granted for only one prefix: WMS or PSY.

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**WMS 3510-3 Feminist Theory (3 + 0)**

Prerequisites: WMS 1001 and satisfaction of Level I General Studies course requirements

This course studies both the classical tradition of feminist thought and its contemporary expression. Beginning with the "protofeminist" thinkers of the seventeenth century, it analyzes traditional theories of "woman's nature." Feminist theory's primary concern is with the humanistic foundations of multicultural, social, psychological, and political theories of women. Primary and secondary sources in several disciplines are examined as they contribute to the development of the eight major varieties of contemporary feminist thinking.

**WMS 3670-1-3 Contemporary Issues in Women's Studies: Variable Topics (1-3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

Objectives vary with course title, but generally focus on current issues that are constantly changing and developing in this area. Check *Class Schedule* for each semester's offerings. This course may be repeated once for credit under different topics.

**WMS 3860-3**

**(HIS 3860) Advanced U.S. Women's History (3 + 0)**

Prerequisites: HIS 1210 or HIS 1220 or HIS/WMS 1650, or permission of instructor

This course provides an in-depth examination of issues pertinent to women of the Americas. Themes will include pre-Columbian culture, immigration, work, family life and women's rights. Credit will be granted for only one prefix: WMS or HIS.

**WMS 3950-3**

**(ART 3950) Women's Art/Women's Issues (3 + 0)**

Prerequisites: WMS 1001, ART 1040 or ART 2000, or permission of instructor, and satisfaction of Level I General Studies course requirements

This course develops an understanding of women artists and their work from the perspectives of feminist scholarship in art and art history. Credit will be



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granted for only one prefix: WMS or ART. (General Studies-Level II, Arts and Letters)

### **WMS 3980-1-12 Cooperative Education Internship (Variable Credit) (0 + 3-36)**

Prerequisites: WMS 1001, junior standing, and permission of instructor

This internship places students in corporate, private nonprofit, or community-based agencies that serve women. A written learning contract between student, faculty supervisor, site supervisor, agency and department chairs is required. Activities include: information and referral; client help with problem solving; resource development; program development; implementation and evaluation; group leadership. Faculty strongly recommends for Individualized Degree Program majors.

### **WMS 4250-1-3 Topics in Women's Studies: Variable Topics (1-3 + 0)**

Prerequisite: WMS 1001 or permission of instructor

Topics are selected to incorporate an in-depth approach to the study of a particular area of historical, cultural, or political significance to women's studies students. Check *Class Schedule* for each semester's offerings. This course may be repeated once for credit as topics change.

### **WMS 4750-3 Senior Seminar (3 + 0)**

Prerequisite: six credits in women's studies or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

Designed primarily for Individualized Degree Program majors and minors as the culmination of work in women's studies, this seminar will cover interdisciplinary bibliography and research methodology. Students will write and present in the seminar their senior paper. As each project will be individual, papers will reflect each student's particular course of study. Open to Individualized Degree Program majors and minors and others by permission of the instructor. (Senior Experience)

### **WMS 4860-3**

#### **(HIS 4860) History of Feminism and Women's Rights (3 + 0)**

Prerequisites: WMS 1001 or either HIS 1210 or HIS/WMS 1650, or permission of instructor

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The purpose of this course is to examine the history of American feminism from the Age of the Revolution to the present. Through the use of primary and secondary sources, the philosophies and strategies of women's rights activists and organizations will be examined. Among the special topics to be considered are the conditions and intellectual currents in society that facilitated the growth of American feminism, the achievements of the women's rights movement, the forces that opposed women's rights and the issues for debate within the feminist movements. Credit will be granted for only one prefix: WMS or HIS.

### **First-Year Seminar**

#### **XXX 1190-3 First-Year Seminar (3 + 0)**

Analyzes the first-year college student's experience through social, psychological and educational frameworks. Uses readings as multiperspective models of living in the world and the objects of inquiry. After close examination and class discussion, students write either reaction, review, or short research papers, using the personal voice to demonstrate their increasing awareness about how the issues affect them. Students build a body of writing that reflects their evolving role in academic life. Through written assignments, collaborative projects, oral presentations and experiential learning, students make a more successful transition into college, achieving greater success while there. (Multicultural)

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### **THE STATE COLLEGES IN COLORADO**

The Metropolitan State College of Denver is governed by the Trustees of The State Colleges in Colorado. Other institutions governed by the Trustees are Adams State College, Mesa State College and Western State College.

Each member institution can provide any student in good standing with the materials needed to enroll temporarily in any other member institution without incurring additional matriculation costs. Information concerning tuition is available at the host institution.

### **TRUSTEES OF THE STATE COLLEGES IN COLORADO**

	Date of First Appointment	Present Term Expires
Dale Mingilton, Chair, Aurora	1997	2001
Helen Atkeson, Vice Chair, Denver	1997	2001
Robert Decker, Gunnison	1999	2003
James Hamilton, Grand Junction	1999	2003
Bill Hanzlik, Englewood	1999	2001
Ann Rice, Englewood	1999	2003
Timothy Walters, Alamosa	1999	2003
Koos Daley, Faculty, ASC	1999	2000
Raina Cohn, Student, ASC	1999	2000
William Fulkerson, Ph.D., President of The State Colleges in Colorado		

### **Officers of Administration**

#### **Office of the President**

President, Sheila Kaplan, Ph.D.

## **2000-2001 College Catalog**

College Attorney, Lee Combs, J.D.

Executive Assistant to the President, Yvonne Flood, B.S.

Executive Director, Equal Opportunity, Percy A. Morehouse, Jr., Ph.D.

Provost and Vice President for Academic Affairs, Cheryl J. Norton, Ed.D.

Vice President for Executive Operations and Planning, Gay Cook, M.A.

Vice President for Administration and Finance, Joseph F. Arcese, M.B.A.

Vice President for Institutional Advancement, Carolyn M. Schaefer Wollard, B.A.

Vice President for Student Services (Interim), Yolanda Ortega-Ericksen, M.P.A.

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Director of Honors Program, Adolph Grundman, Ph.D.

Director of Extended Campus Programs, Carol Svendsen, M.A.

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Director of Student Accounts and Business Services, Bruce Williams, M.B.A.

Business Services Manager, Ginger Alcorn

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Director of Academic Computing and User Services, Vacant

Director of Application Services-Information Technology, Lynn Denzin, M.Ed.

Technical Services Manager, Jay Martin, M.P.A.

Manager of Academic Labs, Marc H. Falkenham, M.A.

Manager of User Services-Information Technology, Vacant

Executive Director of Human Resources and Payroll Services, Judy Dobbins, M.P.A.

Benefits Administrator, Elyse Yamauchi, M.A.

Director of Institutional Research, Paul Wilken, Ph.D.

Director of Budgets, Natalie K. Lutes, B.S.

Athletic Director of Intercollegiate Athletics, Joan McDermott, Ed.D.

### **Office of the Vice President for Institutional Advancement**

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Director of Development for School of Professional Studies, Marsha Tuttle Morstad, M.Ed.

Director of Development, Private Grants and Research, Laura A. Cline, M.S.

Director of Publications, Ron Lambert, B.F.A.

Director of the Center for the Visual Arts, Sally Perisho, M.A.

**Office of the Vice President for Student Services**

Vice President for Student Services (Interim), Yolanda Ortega-Ericksen, M.P.A.

Assist. Vice President for Student Svcs./Student ADA Coord. (Interim), Kelly Espinoza, M.A.

Executive Assistant to the Vice President (Interim), Kate B. Lutrey, B.A.

Associate Vice President for Enrollment Management Systems, Michael W. Barnett, M.S.

Director of Admissions, William Hathaway-Clark, M.A.

Director of Assessment and Testing, Rebecca Salinas, M.A.

Registrar, Thomas R. Gray, M.S.

Director of Career Services (Interim), Ron Lujan, B.S.

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Director of Combined Computer Access Center, LaVerne Donelson, M.S.

Director of Financial Aid (Interim), Cindy Hejl, B.S.

Coordinator IMS/ESL, Patti Lohman, M.A.

Director of High School Upward Bound, Charles Maldonado, M.P.A.

Director of GLBT Student Services, Karen Bensen, M.S.W.

Director of the Veterans Upward Bound Program, Glenn A. Morris, M.A.

Director of Student Intervention Services, Betty Vette, B.A.

Director of New Student Orientation, Kimberly Clark, M.S.

Director of Transfer Center, Nancy Breckel, M.A.

Director of the Student Support Services Program, Patricia Trotman, M.A.

Assist. Vice President Student Services/Dean of Student Life (Interim),  
Karen Raforth, Ph.D.

Associate Dean of Student Life, Pauline Reece, M.A.

Director of Campus Recreation, Anne McKelvey, M.A.

Director of the Counseling Center (Interim), Gail Bruce-Sanford, Ph.D.

Director of Student Activities, Zav Dadabhoy, M.A.

Director of the Student Finance Resource Center, Vacant

Director of Health Center at Auraria, Steve Monaco, M.A.

Director of Student Legal Services (Interim), Patricia Post, J.D.

Director of Student Publications (Interim), Chris Mancuso, B.F.A.

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**ACADEMIC ADMINISTRATORS**

**School of Business**

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Accounting, Virginia Parker, Ph.D.

Computer Information Systems, Abel Moreno, Ph.D.

Economics, John Cochran, Ph.D.

Finance, Kenneth Huggins, Ph.D.

Management, Debora Gilliard, Ph.D.

Marketing, Judith Scott, Ph.D.

Director of the Small Business Institute, Kenneth Huggins, Ph.D.

Director, US West Center for Business Success, Sharon Sherman, B.S.

Coordinator, World Trade Center International Education Services, Tamantha Peters, M.S.

Coordinator, Business Outreach, Vacant

**School of Letters, Arts and Sciences**

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Associate Dean (Interim), Jim Cronoble, Ph.D.

Assistant Dean, Tony Montoya, M.P.A.

Department Chairs

African American Studies, C.J. White, Ph.D.

Art, Greg Watts, M.F.A.



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Biology, Patricia L. Stranahan, M.D., Ph.D.

Chemistry, Gerhard Lind, Ph.D.

Chicano Studies, Luis Torres, Ph.D.

Earth and Atmospheric Sciences, Jim Cronoble, Ph.D.

English, William T. Hamilton, Ph.D.

History, Stephen J. Leonard, Ph.D.

Journalism, Kenn Bisio, M.F.A.

Mathematical and Computer Sciences, Charlotte Murphy, Ph.D.

Modern Languages, Conway H. Olmsted, Jr., Ph.D.

Music, Hal Tamblyn, D.M.A.

Philosophy, Timothy Gould, Ph.D.

Physics, Sidney A. Freudenstein, Ph.D.

Political Science, Norman Provizer, Ph.D.

Psychology, Lyn Wickelgren, Ph.D.

Sociology/Anthropology/Social Work, Kenneth M. Keller, Ph.D.

Speech Communication, Marilyn A. Hetzel, Ph.D.

Director of the Institute for Women's Studies and Services, Jodi Wetzel, Ph.D.

Director of the Center for Mathematics, Science and Environmental Education, Larry S. Johnson, Ph.D.

Director of the English Composition Program, Joan R. Griffin, Ph.D.

Director of the Family Center, Virginia Cruz, Ph.D.

Director of the First Year Program, Renee Ruderman, M.A.

Director of Social Work Program, Virginia Cruz, Ph.D.

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### **School of Professional Studies**

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Associate Dean, Katherine Saltzman, Ed.D.

Department Chairs

Aerospace Science, Vacant

Criminal Justice and Criminology, Joseph G. Sandoval, J.D.

Early Childhood, Elementary and Special Education (Acting), Vincent Orlando, Ph.D.

Engineering Technology (Acting), John C. Schmidt, Ed.D.

Health Professions (Acting), Katherine Saltzman, Ed.D.

Hospitality, Meeting and Travel Administration, John Dienhart, Ph.D.

Human Performance, Sport and Leisure Studies, Bruce Morgenegg, Ed.D.

Human Services J., Michael Faragher, Psy.D.

Co-Director of the Center for Addiction Studies, Anne S. Hatcher, Ed.D.

Co-Director of the Center for Addiction Studies, J. Michael Faragher, Psy.D.

Director of the Center for High Risk Youth Studies, Vacant

Director of the Center for Nonprofit Organization Administration, Katherine Saltzman, Ed.D.

Secondary Education (Acting), Ernest L. Heyman, Ed.D.

Technical Communications, Peggy O'Neill-Jones, M.S.S.

Director of the Child Development Center, Marge Petersen, M.A.

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Director of Clinical Services, Lucius Drake, Ph.D.

Director of Teachers for Colorado (Acting), J. Victor McGuire, Ph.D.

## **Faculty**

**Abbasi, Nishat**

B.Com., Karachi University, Pakistan; M.B.A., Institute of Business Administration, Pakistan; M.S., Ohio University at Athens; Ph.D., University of Colorado; Associate Professor of Accounting

**Agarwal, Avinash**

B.S., India Institute of Technology; M.S., Southern Illinois University; Assistant Professor of Electrical Engineering Technology

**Airsman, Linda A.**

B.A., M.A., Ph.D., University of Utah; Associate Professor of Sociology

**Akacem, Mohammed**

B.A., Portsmouth Polytechnic; M.A., Ph.D., University of Colorado; Professor of Economics

**Alejano-Steele, AnnJanette**

B.A., University of Michigan; M.A. and Ph.D., Michigan State University; Assistant Professor of Psychology and Women's Studies

**Alford, Donald K.**

B.A., M.S., Whittier College; Ph.D., University of Wisconsin; Professor of Biology

**Allbee, Charles E.**

B.A., M.A., Adams State College; D.A., University of Northern Colorado; Professor of English

**Allen, Lori A.**

B.A., M.A., University of Akron; Associate Professor of Technical Communications

**Altherr, Thomas L.**

B.A., SUNY College at Fredonia; M.A., Ph.D., Ohio State University; Professor of History

**Amend, Robert H.**

B.A., University of Indiana; M.A., University of Northern Colorado; Professor of Technical Communications

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### **Anderson, Peggy**

B.S., University of Florida; B.A., Flagler College; M.Ed., The Citadel; Ph.D., University of Denver; Professor of Early Childhood and Elementary Education (Special Education)

### **Angeletti, Charles E.**

B.A., M.A., University of Tulsa; Ed.D., University of Northern Colorado; Professor of History

### **Ansburg, Pamela I.**

B.A., University of California-Riverside; M.A., University of Nevada-Reno; Ph.D., University of Illinois-Chicago; Assistant Professor of Psychology

### **Aubrey, James**

B.S., U.S. Air Force Academy; M.A., Northwestern University; Ph.D., University of Washington; Professor of English

### **Bacigalupi, Tadini**

B.A., Colorado College; M.A., Adams State College; Ph.D., Colorado State University; Associate Professor of Sociology

### **Bailey, Nancy S.**

B.A., Colorado Women's College; M.S., California State University-Fullerton; Ed.D., University of Colorado; Associate Professor of Reading

### **Balazs, Brent**

B.S., U.S. Air Force Academy; M.S., North Carolina State University; M.A., Naval War College; Associate Professor of Aerospace Science

### **Barcelo, Margarita T.**

B.A., Santa Clara University; M.A. and Ph.D., University of California-San Diego; Assistant Professor of English and Chicano Studies

### **Barr, Walter L.**

B.S., Arizona State College; M.A., Northern Arizona University; D.M.E., Arizona State University; Associate Professor of Music

### **Bauer, Monica**

B.A., Brown University; M.Div., Yale Divinity School; M.A. and Ph.D., University of Nebraska; Assistant Professor of Political Science

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### **Beaty, Steven J.**

B.S., M.S., and Ph.D., Colorado State University; Assistant Professor of Computer Science

### **Becker, George C.**

B.S., University of Minnesota; M.S., Ph.D., University of Wisconsin; Professor of Biology

### **Bisio, Kenn**

A.A., Skyline College; B.A., San Jose State University; M.F.A., Vermont College of Norwich University; Assistant Professor of Journalism

### **Blomberg, Dianne**

B.A., Metropolitan State College; M.A., University of Northern Colorado; Ph.D., University of Denver; Assistant Professor of Speech Communication

### **Boneh, Shahar**

B.S., Tel Aviv University; M.S., University of California, Santa Barbara; Ph.D., University of California, Santa Barbara; Associate Professor of Mathematical Science

### **Boswell, Jerry D.**

B.S., B.A., and M.B.A., Washington University; D.B.A., Indiana University; CFA; Professor of Finance

### **Box, Cecelia A.**

B.A., M.A., Trinity University; Ph.D., University of Texas; Associate Professor of Secondary Education

### **Branch, Charles V.**

B.S., Kansas State University; M.S., University of West Florida; Ed.D., University of Florida; Professor of Education and Human Services

### **Breitenbach, Robert B.**

B.A., University of Cincinnati; M.B.A., Ph.D., Ohio State University; J.D., University of Oklahoma; Professor of Management

### **Brobst, Deborah Hurley**

B.A., University of Wisconsin; M.A., Marquette University; Associate Professor of Journalism

### **Brodell, James J.**

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B.A., Mesa College; A.B.D., Southern Illinois University; Assistant Professor of Journalism

### **Broida, Jane K.**

B.S., M.S., State University College of New York; Ed.D., Temple University; Professor of Leisure Studies

### **Bruce, Robert A.**

B.S., Colorado State University; M.S., Ph.D., University of Wisconsin; Assistant Professor of Mathematical Sciences

### **Buswell, Janice R.**

B.A., Colorado College; M.A., University of Colorado; Ed.D., University of Northern Colorado; Professor of Reading

### **C. de Baca, Vincent Z.**

B.A., M.A., Ph.D., University of California-San Diego; Associate Professor of History

### **Cable, Susan L.**

B.M., Oberlin College Conservatory; M.M., University of Illinois; D.A., University of Northern Colorado; Professor of Music

### **Caine, Jennifer**

B.S., University of Canterbury; M.S., University of Colorado; Associate Professor of Aerospace Science

### **Call, Steven T.**

B.S., Brigham Young University; M.A., Ph.D., Indiana University; Professor of Economics

### **Campa, Arthur L., Jr.**

B.A., University of Denver; M.A., Ph.D., University of Colorado; Associate Professor of Anthropology

### **Canavan, Marcia**

B.A., M.P.H., University of California-Los Angeles; J.D., Golden Gate University; Professor of Criminal Justice and Criminology

### **Capehart, Melvin E.**

## **2000-2001 College Catalog**

B.S., University of Illinois; M.S.E.E., University of Colorado; Professor of Electrical Engineering Technology

### **Carlson, Cindy**

B.A., University of Colorado, Boulder; J.D., University of Colorado Law School; Ph.D., Columbia University; Assistant Professor of English

### **Cawley, J. Douglas**

B.S., Brigham Young University; M.S., Ph.D., University of Utah; Professor of Reading

### **Chamberlain, Dennis**

B.A., M.F.A., San Diego State University; Assistant Professor of Art

### **Chang, Donald T.**

B.B.A., National Chengchi University-Taiwan; M.B.A. and Ph.D., University of Missouri-Columbia; Associate Professor of Marketing

### **Choi, Ducksang**

B.S., Seoul National University; M.B.A., University of Tennessee; D.B.A., Mississippi State University; Associate Professor of Finance

### **Christian, Bruce A.**

B.S., M.S., Ohio State University; Associate Professor of Aerospace Science

### **Chu, Antonio Kin-On**

B.A., Cornell University; M.A. and Ph.D., University of Wisconsin-Madison; Assistant Professor of Philosophy

### **Clay, Gudrun**

B.A., University of Denver; M.A., Ph.D., University of Colorado; Professor of German

### **Cochran, John Paul**

B.A., Metropolitan State College; M.A., Ph.D., University of Colorado; Professor of Economics

### **Cohen, Robert R.**

B.A., University of Minnesota; Ph.D., University of Colorado; Professor of Biology

### **Conde, David**



## **2000-2001 College Catalog**

B.A., University of Northern Colorado; M.A., Ph.D., University of Kansas; Professor of Modern Languages

### **Constransitch, Phyllis**

B.A., Nicholls State University; M.F.A., University of Georgia; Assistant Professor of Art

### **Cook, Margie Ball**

B.S., Loretto Heights College; M.S., University of Colorado; Ph.D., University of Denver; Professor of Nursing, Gerontology and Health Professions

### **Cook, W. Thomas**

B.A., M.A., University of Northern Colorado; Professor of Speech

### **Cookson, Clifford B.**

B.S.E.E., University of Colorado; M.S.E.E., University of Colorado at Denver; Assistant Professor of Electrical Engineering Technology

### **Copley, Waldo H.**

B.S., University of Arizona; M.A., University of Oklahoma; Ph.D., Colorado State University; Professor of Criminal Justice and Criminology

### **Cormier, Russell A.**

B.S., University of Massachusetts; M.S., Ph.D., University of Rochester; Professor of Chemistry

### **Corona, Thomas J.**

B.S., Rutgers University; M.S., Colorado State University; Associate Professor of Meteorology

### **Craig, James R.**

B.F.A., College-Conservatory of Music of Cincinnati; M.S., Indiana University; Professor of Speech

### **Crater, Theresa L.**

B.A., University of North Carolina at Greensboro; M.A., Ph.D., University of Washington; Associate Professor of English

### **Cresswell, Herbert F.**

B.M.E., Southwest Texas State University; M.A., University of Texas at Tyler; Assistant Professor of Hotel Administration

## **2000-2001 College Catalog**

### **Cronoble, James M.**

B.A., University of Oklahoma; M.S., Ph.D., Colorado School of Mines; Assistant Professor of Geology

### **Crosser, Rick L.**

B.S. and M.S., Colorado State University; Ph.D., Oklahoma State University; C.P.A.; Professor of Accounting

### **Crutcher, Robert**

B.A., University of California-Berkeley; M.A. and Ph.D., University of Colorado; Assistant Professor of Psychology

### **Cruz, Virginia**

B.A., California State University; M.S.W., D.S.W., University of California-Los Angeles; Associate Professor of Social Work

### **Cruz-Janzen, Marta I.**

B.S., Cornell University; M.A. and Ed.M., Columbia University; Ph.D., University of Denver; Assistant Professor of Secondary Education

### **Cummings, David L.**

B.S.E.E., University of Colorado; M.S.E.E., Naval Postgraduate School; Assistant Professor of Electrical Engineering Technology

### **Cummins, Jack D.**

B.A., Western State College; M.S., Ph.D., University of New Mexico; Professor of Chemistry

### **Cunningham, Eldon L.**

B.F.A., Wichita State University; M.F.A., University of Colorado; Professor of Art

### **Curran, Catherine**

B.A., Trinity University; M.S., University of New Mexico; Ph.D., University of Colorado; Associate Professor of Speech, Language, Pathology, Audiology

### **Davis, John V.**

B.A., Wake Forest University; M.A., Ph.D., University of Colorado; Professor of Psychology

### **De La Torre, Angelina**

## **2000-2001 College Catalog**

B.A., San Fernando Valley College; J.D., University of California; Associate Professor of Criminal Justice and Criminology

### **Deacon, Sheila**

B.A., University of Western Ontario; B.Ed., Althouse College; M.Ed., Delta State University; Ph.D., University of Texas; Assistant Professor of Early Childhood and Elementary Education

### **Dehning, Lyle E.**

B.S., University of Colorado; M.A., University of Northern Colorado; C.P.A.; Assistant Professor of Accounting

### **Delasara, Jan**

B.A., State University of Iowa; M.A., Ph.D., Missouri University; Professor of English

### **Dewey, Fred M.**

B.S., Colorado State University; Ph.D., University of Colorado; Professor of Chemistry

### **Dienhart, John R.**

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### **Dirksen, Debra**

B.S., Brigham Young University; M.A., Utah State University; Ph.D., University of Northern Colorado; Assistant Professor of Secondary Education

### **Doe, Sandra M.**

B.A., Doane College; M.A., University of Denver; Ed.D., University of Northern Colorado; Professor of English

### **Doepke, Frederick C.**

B.S., M.A., University of Florida; Ph.D., University of California-Berkeley; Professor of Philosophy

### **Doerr, Richard P.**

B.A., Macalester College; M.A., University of Illinois; Ph.D., University of Colorado; Associate Professor of Spanish

### **Donovan, George S.**

## **2000-2001 College Catalog**

B.S., University of Massachusetts; M.A., Ph.D., University of Colorado; Professor of Mathematical Sciences

### **Downs, James C.**

B.S., M.S., Kansas State Teachers College; Ph.D., Kansas State University; Associate Professor of Marketing

### **Drake, James**

B.A., University of California-Berkeley; M.A. and Ph.D., University of California-Los Angeles; Assistant Professor of History

### **DyReyes, Felix R.**

B.S., Letran College; M.S., Southern Illinois University; Ph.D., Iowa State University; Professor of Finance

### **Ellerbruch, Doyle A.**

B.S., University of Wyoming; M.S.E.E., University of Colorado; P.E., Colorado; Associate Professor of Electrical Engineering Technology

### **Emerson, William D.**

B.A., Kansas State College; M.A., University of Illinois; Ph.D., University of Utah; Professor of Mathematical Sciences

### **Erickson, Erick Lee**

B.A., University of Montana; M.A., Ph.D., University of New Mexico; Professor of Economics

### **Everett, Sally I.**

B.A., Maryville College; M.A., Ohio State University; Associate Professor of Art

### **Faragher, J. Michael**

B.A., M.A., University of South Dakota; Psy.D., University of Northern Colorado; Professor of Human Services

### **Farkas, Paul D.**

B.A., St. Edward's University; M.A., University of New Orleans; Ph.D., Louisiana State University; Associate Professor of English

### **Farnham, Bruce B.**

## **2000-2001 College Catalog**

B.S., University of New Mexico; M.S., New Mexico State University; Ph.D., University of Arizona; Professor of Biology

### **Faurer, Judson C.**

B.S., U.S. Military Academy; M.B.A., Ohio State University; Ph.D., University of Denver; Professor of Management

### **Ferrell, Rebecca V.**

B.S., M.S., Southwest Missouri State University; Ph.D., University of Missouri; Associate Professor of Biology

### **Fleisher, Arthur A.**

B.A., San Diego State University; M.A., Ph.D., George Mason University; Associate Professor of Economics

### **Flemon, Wilton**

B.S., Grambling College; M.S., Atlanta University; Ph.D., University of Denver; Professor of Chemistry

### **Fontanez, Carlos J.**

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### **Forns-Broggi, Roberto**

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### **Foster, Joan L.M.**

B.A., Metropolitan State College of Denver; M.S., Ph.D., University of Denver; Professor of Biology

### **Foster, Joan M.C.**

B.A., M.A., Northern Illinois University; Ph.D., University of New Mexico; Dean, School of Letters, Arts and Sciences; Professor of English

### **Foster, Phillip B.**

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### **Frederick, Elizabeth A.**

## **2000-2001 College Catalog**

B.S., Pennsylvania State University; M.B.A., Michigan State University; Ph.D., University of Maryland; Associate Professor of Management

### **Freeburn, Paul P.**

B.S., Ed.D., University of South Dakota; M.A., St. Thomas College; Professor of Secondary Education

### **Freeman, James L.**

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### **Freudenstein, Sidney A., III**

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### **Friot, F. Elizabeth**

B.S., University of Oklahoma; M.S., State University of New York, College at Buffalo; Ph.D., University of Oklahoma; Professor of Secondary Education

### **Frontczak, Nancy T.**

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### **Garcia, Rodolfo**

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### **Garman, George B.**

B.S., Indiana University; Ph.D., Notre Dame University; Professor of Computer Information Systems

### **Garrett, James L.**

B.S., U.S. Air Force Academy; M.S., University of Southern California; Assistant Professor of Aerospace Science

### **Geisler, Jerry**

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### **Germann, Clark,**

## **2000-2001 College Catalog**

B.A., University of Wyoming; M.S., University of Denver; Ph.D., University of Denver;  
Associate Professor of Technical Communications

### **Gilliam, Lynde O.**

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### **Gilliard, Debora**

B.S., University of Northern Colorado; M.B.A., University of Colorado at Denver; Ph.D., Arizona State University; Associate Professor of Management

### **Gilmore, Don D.**

B.A., M.A., Ed.D., University of Montana; Assistant Professor of Mathematical Sciences

### **Glatz, Lawrence**

B.A., University of Pennsylvania; M.A., Penn State University; Ph.D., Penn State University;  
Assistant Professor of German

### **Gliner, Gail S.**

B.A., Ph.D., University of California; M.A., Bowling Green State University; Professor of Mathematical Sciences

### **Glover, Donald R.**

B.S., M.S., Ph.D., University of Illinois; Professor of Marketing

### **Goldin, Paul C.**

B.A., Columbia University; M.A., Ph.D., University of North Carolina; Associate Professor of Psychology

### **Gordon, Aaron J.**

B.S., University of Illinois; M.Ed., University of Illinois; M.S., West Virginia University; Ph.D., University of Wisconsin; Associate Professor of Computer Science

### **Gould, Timothy**

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### **Griffin, C. Ramon**

## **2000-2001 College Catalog**

B.S., Auburn University; M.B.A., Ph.D., Georgia State University; Associate Professor of Finance

### **Griffin, Joan R.**

B.A., College of St. Theresa; M.A., South Dakota State University; Ph.D., University of Nebraska; Professor of English

### **Grundman, Adolph H.**

B.A., Albion College; M.A., Western Michigan University; Ph.D., Wayne State University; Professor of History; Director of the Honors Program

### **Gudmundsen, Sandra**

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### **Gunn, Nancy**

B.A., St. Lawrence University; M.A., University of Michigan; Ph.D., City University of New York; Assistant Professor of Music

### **Gurka, Judith S.**

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### **Haber, Jeffrey S.**

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### **Hagen, Monys A.**

B.A., University of Minnesota; M.A., Ph.D., University of Wisconsin; Associate Professor of History and Women's Studies

### **Haley, Elsie G.**

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### **Hamilton, William T.**

B.A., University of Washington; M.A., University of Maryland; Ph.D., University of Minnesota; Professor of English



## **2000-2001 College Catalog**

### **Hanson, Roberta C.**

B.S., B.A., Pittsburg State University; M.B.A., University of Oklahoma; Ph.D., University of Colorado; Professor of Management

### **Harvey, Mark L.**

B.A., St. Augustine's College; M.S., George Williams College; Ed.D., University of Utah; Professor of Human Performance and Sport

### **Hasz, Earl E.**

B.A., Carleton College; M.A., Ph.D., University of Colorado; Professor of Mathematical Sciences

### **Hatcher, Anne S.**

B.S., Texas Technological College; M.S., University of Kansas Medical Center; Ed.D., University of Northern Colorado; Associate Professor of Human Services

### **Hathorn, John**

B.Com, University of Natal; M.S., University of South Africa; M.S. and Ph.D., Kent State University; Assistant Professor of Accounting

### **Haynes, Sandra**

B.S., M.S., Ph.D., Colorado State University; Associate Professor of Human Services

### **Hays, Clare Anne**

B.S., D.V.M., Colorado State University; Professor of Biology

### **Hazan, Robert**

Dipl., University of Grenoble, France; M.A., Illinois State University; M.A., Ph.D., University of Denver; Associate Professor of Political Science

### **He, Mingl**

B.S., Nanjing Aeronautical Institute; M.S. and Ph.D., University of Central Florida; Assistant Professor of Mechanical Engineering

### **Helms, Susan J.S.**

B.S., Texas Tech University; M.S., Purdue University; Ph.D., University of Texas; Professor of Computer Information Systems

## **2000-2001 College Catalog**

### **Hesson, John E.**

B.S., American University; M.A., Ph.D., Temple University; Professor of Psychology

### **Hetzel, Marilyn A.**

B.A., University of Illinois; M.A., Ph.D., University of Colorado; Professor of Speech and Theatre Arts Director

### **Heuwinkel, Mary K.**

B.S., Iowa State University; M.S., University of Colorado at Denver; Ed.D., University of Northern Colorado; Assistant Professor of Early Childhood and Elementary Education

### **Heyman, Ernest L.**

A.B., M.Ed., Ed.D., Wayne State University; Professor of Secondary Education

### **Hills, Roberta Sherman**

B.S., M.S., Ohio State University; Ph.D., Wayne State University; Assistant Professor of Nursing and Health Professions

### **Hoffman, Morton**

B.A., M.A., University of Denver; Ph.D., University of Northern Colorado; Professor of Psychology

### **Holley, Frieda K.**

B.A., Colorado College; M.A. and Ph.D., University of New Mexico; Professor of Mathematical Sciences

### **Holloway, Madison W.**

B.A., Rutgers University; M.A. and Ph.D., University of Colorado; Associate Professor of Management

### **Holmes-Lonergan, Heather**

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### **Holtze, Elizabeth**

B.A., Grinnell College; M.A., Columbia University; Ph.D., University of Nebraska; Professor of English

### **Hufft, Edward M., Jr.**

## **2000-2001 College Catalog**

B.S., Louisiana State University; M.B.A., University of Houston; Ph.D., University of Kentucky;  
Associate Professor of Management

### **Huggins, Kenneth M.**

B.A., Dakota Wesleyan University; M.B.A., Indiana University; Ph.D., Texas Tech University;  
CFP; Professor of Finance

### **Hurlbut, Jeffrey A.**

B.A., Western Washington State College; Ph.D., University of California; Professor of  
Chemistry

### **Jackson, Richard L.**

B.A., J.D., University of Denver; Associate Professor of Criminal Justice and Criminology

### **Jass, Carolyn K.**

B.S., Loretto Heights College; M.S., Ph.D., University of Colorado; Professor of Nursing,  
Gerontology and Health Professions

### **Johnson, Carl I.**

B.A., M.A., University of Northern Colorado; Ph.D., University of Denver; Professor of Speech

### **Johnson, Larry S.**

B.S., Western State College; M.S., Ph.D., University of Wyoming; Professor of Mathematical  
Sciences

### **Johnson, Mary Black**

B.S., M.S., Ph.D., University of Utah; Associate Professor of Human Performance and Sport

### **Joseph, Susan**

B.A., Brooklyn College; M.A., Ph.D., University of Colorado; Professor of Art

### **Kabisch, Cecilia D.**

B.A., Federal University, Brazil; M.A., California State University-Fullerton; Ph.D., University  
of Colorado; Assistant Professor of Early Childhood and Elementary Education

### **Kaersvang, Lynn**

B.A., University of Colorado; M.S.W., University of Denver; Associate Professor of Social  
Work

## **2000-2001 College Catalog**

**Kassaye, W. Wossen**

M.A. and Ph.D., University of Illinois-Urbana; Professor of Marketing

**Katsampes, Paul L.**

B.S., Metropolitan State College of Denver; M.P.A., State University of New York at Albany; D.P.A., University of Colorado; Professor of Criminal Justice and Criminology

**Keller, Kenneth M.**

B.A., St. Francis College; M.A., University of Colorado; Ph.D., University of Colorado; Associate Professor of Anthropology

**Kelley, Thomas E.**

B.A., M.A., Boston College; Ph.D., Oregon State University; Professor of Mathematical Sciences

**Kelly, Catherine A.**

B.S., South Dakota State University; M.S., University of Utah; Ph.D., University of Denver; Assistant Professor of Early Childhood and Elementary Education

**Kent, Jonathan D.**

B.A., Michigan State University; M.A., Case Western Reserve University; Ph.D., Washington University; Associate Professor of Anthropology

**Khandekar, Rajendra**

B.Tech., Indian Institute of Technology; P.G.D.M., Indian Institute of Management; Ph.D., University of Kansas; Professor of Management

**Kilcoyne, John R.**

B.A., M.A., San Fernando Valley State College; Ph.D., University of Washington; Professor of Geography

**Kitzman, Morey**

B.A., M.A., Ph.D., University of Connecticut; Associate Professor of Psychology

**Kline, Bradford**

B.S., University of Missouri; Ph.D., University of Illinois; Assistant Professor of Mathematics

**Knights, Ronald M.**

## **2000-2001 College Catalog**

B.B.A., M.A., Ph.D., University of New Mexico; Professor of Management

### **Kober, Jane E.**

B.S., Wisconsin State University; M.S., Arizona State University; Assistant Professor of Human Performance and Sport

### **Kornelsen, Michael**

B.S., University of Colorado; M.S.E., University of Northern Colorado; Assistant Professor of Music

### **Kottenstette, David T.**

B.A., Regis University; M.A., University of Northern Colorado; Associate Professor of Design and Technical Theater

### **Krantz, Richard**

B.S., St. Lawrence University; M.S., Colorado State University; Ph.D., Colorado State University; Assistant Professor of Physics

### **Krenetsky, John C.**

B.A., Montclair State College; M.S., Ph.D., University of New Mexico; Professor of Biology

### **Krupar, Karen**

B.S., Northern State College; M.A., Ph.D., University of Denver; Professor of Speech; Director, Academy for Teaching Excellence

### **Kuhlmann, Kevin R.**

B.S., Southern Illinois University; M.S., Embry-Riddle Aeronautical University; Associate Professor of Aerospace Science

### **Kulkarni, Kishore**

B.A., M.A., University of Poona; M.A., Ph.D., University of Pittsburgh; Professor of Economics

### **Lander, Robert J.**

B.S., Gannon University; M.A., University of Northern Colorado; Associate Professor of Health Care Management

### **Landry, John R.**

## **2000-2001 College Catalog**

B.S., M.E., Louisiana State University; Ph.D., University of Colorado; Associate Professor of Computer Information Systems

### **Lang-Peralta, Linda**

B.A. and M.A., California State-Long Beach; Ph.D., University of California-Irvine; Assistant Professor of English

### **Langton, Larry B.**

B.A., M.A., Wichita State University; Ph.D., University of Wisconsin; Professor of English

### **Larsen, Gwynne E.**

B.S., Metropolitan State College of Denver; M.B.A., Ph.D., University of Denver; Professor of Computer Information Systems

### **Latta-Kirby, Dawn**

B.S., University of Georgia; M.Ed., Georgia State; Ed.D., University of Georgia; Associate Professor of English

### **Laufer, Douglas M.**

B.S.B.A., University of Denver; M.S., Colorado State University; Ph.D., Oklahoma State University; C.P.A.; Professor of Accounting

### **Leitz, Robert E.**

B.S., M.S., University of California-Berkeley; Assistant Professor of Geology

### **Leonard, Stephen J.**

B.A., Regis College; M.A., University of Wyoming; Ph.D., Claremont Graduate School; Professor of History and Archivist

### **Leong, Deborah**

B.A., Stanford University; M.Ed., Harvard University; Ph.D., Stanford University; Professor of Psychology

### **Lind, Gerhard**

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### **Loats, James T.**

**2000-2001 College Catalog**

B.A., Oklahoma State University; M.S., Ohio University; Ph.D., University of Colorado;  
Professor of Mathematical Sciences

**Lockwood, Linda**

B.A., Metropolitan State College; M.A., Ph.D., University of Colorado; Assistant Professor of  
Psychology

**Loeffler, Mary Ann**

B.S., University of Colorado; M.A., University of Northern Colorado; Assistant Professor of  
Leisure Studies

**Logan, J. Thomas**

B.A., San Fernando Valley State College; M.F.A., Cranbrook Academy of Art; Professor of Art

**Lombard, J. Larry**

B.S., University of Tulsa; M.S., Oklahoma State University; Ph.D., University of Arkansas;  
Associate Professor of Accounting

**Lopez, Larry M.**

B.S.B.A., University of Denver; J.D., University of Denver College of Law; Assistant Professor  
of Management

**Loveland, Karen Ann**

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**Low, M. Edwin**

B.A., M.A., Indiana State University; Ph.D., University of Colorado; Professor of English

**Lucero, Aileen F.**

B.A., M.A., Ph.D., University of Colorado; Associate Professor of Sociology and Chicano  
Studies

**Marold, Kathryn**

B.A., Creighton University; M.S.S., Ph.D., University of Denver; Assistant Professor of  
Computer Information Systems

**Martinez, Lupe**

## **2000-2001 College Catalog**

B.A., M.A., San Francisco State University; Ph.D., University of Colorado; Associate Professor of Early Childhood and Elementary Education

### **Mawhinney, Charles H.**

B.S., Carnegie-Mellon University; M.B.A., Ph.D., University of Pittsburgh; Professor of Computer Information Systems

### **Mayes, Timothy**

A.A., University of Florida; B.S., Ph.D., University of Central Florida; Assistant Professor of Finance

### **McCall, Laura**

B.A., Northwestern University; M.A., Ph.D., University of Michigan; Professor of History

### **McCrillis, George R.**

B.S., University of Massachusetts; M.S., Troy State University; Associate Professor of Aerospace Science

### **McElhiney, Annette B.**

B.A., M.A., University of Missouri; Ph.D., University of Denver; Professor of English and Women's Studies

### **McGuire, J. Victor**

B.A., Doane College; M.Ed. and Ph.D., Colorado State University; Associate Professor of Secondary Education

### **McGuire-Mahony, Kathleen**

B.S., University of Virginia; M.S., University of Colorado; Ph.D., University of Denver; Professor of Nursing and Health Professions

### **McInerney, Thomas**

B.A., Duquesne University; M.A., Columbia University; Ph.D., University of Denver; Professor of History

### **McKenna, Patricia**

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### **Mena, Charles**



## **2000-2001 College Catalog**

B.S., University of Southern California; M.A., California State University; Ph.D., University of Colorado; Professor of Early Childhood and Elementary Education

### **Mendez, Celestino G.**

B.A., St. Benedict's College; M.A., Ph.D., University of Colorado; Professor of Mathematical Sciences

### **Meranto, Oneida**

B.A., Metropolitan State College of Denver; M.A., University of Colorado at Denver; Ph.D., University of Colorado; Associate Professor of Political Science

### **Miles, Ronald G.**

B.M., University of Denver; M.M., University of Colorado; Assistant Professor of Music

### **Milkman, Harvey B.**

B.S., City University of New York; M.A., Ph.D., Michigan State University; Professor of Psychology

### **Mirich, John J.**

B.A., M.A., Ed.D., University of Northern Colorado; Professor of Psychology

### **Mock, Robert**

B.S., Illinois Institute of Technology; M.S., University of Southern California; Dean, School of Professional Studies; Professor of Aerospace Science

### **Moeller, Richard**

B.A., Baldwin-Wallace College; M.A., George Washington University; Ph.D., University of Edinburgh;  
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### **Monroe, Ben, III**

B.A., M.A., Ph.D., University of New Mexico; Associate Professor of Human Services

### **Monroe, Stuart R.**

B.S., Penn State University; M.B.A., Brigham Young University; Ph.D., University of Arizona; Professor of Computer Information Systems

### **Moreno, Abel A.**

## **2000-2001 College Catalog**

B.S., Instituto Tecnológico y de Estudios Superiores de Monterrey; M.S. and Ph.D., North Dakota State University, Associate Professor of Computer Information Systems

### **Moreno-Sanchez, Rafael**

B.S., Chapingo Autonomous University; M.S., Colorado State University; Ph.D., Colorado State University; Assistant Professor of Geography

### **Morgenegg, Bruce**

B.S., Colorado State University; M.S., Brigham Young University; Ed.D., Columbia University; Professor of Human Performance and Sport

### **Morrell, Joseph S.**

B.S., University of Southwestern Louisiana; M.S., Louisiana State University; Ph.D., Florida State University; Professor of Computer Information Systems

### **Morris, Gerard J.**

B.S., University College Galway; M.S., University of Minnesota; Ph.D., University College Galway; Professor of Computer Information Systems

### **Morse, H. William**

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### **Murphy, Ann B.**

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### **Murphy, Charlotte W.**

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### **Nation, Frank W.**

B.A., M.A., University of Denver; Associate Professor of History

### **Nees, Hal**

B.S., Northern Arizona University; B.S., Metropolitan State College of Denver; M.A., University of Northern Colorado; M.C.J. and D.P.A., University of Colorado; Assistant Professor of Criminal Justice

### **Nichols, Carol D.**

## **2000-2001 College Catalog**

B.S., Southeast Missouri State University; M.Ed., University of Missouri-St. Louis; Ed.D., University of Northern Colorado; Professor of Reading

### **Nissen, Laura**

B.A., Metropolitan State College; MSW, University of Denver; Ph.D., University of Denver; Assistant Professor of Human Services

### **Norton, Cheryl J.**

B.A., Denison University; M.A., Ed.M., D.Ed., Teachers College, Columbia University; Professor of Human Performance and Sport

### **Odden, Arthur**

A.B., North Dakota State Teachers College; J.D., University of Denver; Associate Professor of Management

### **Olmsted, Jr., Conway H.**

B.A., Colorado College; M.A., Middlebury College; Ph.D., University of Colorado; Associate Professor of Spanish

### **Olsen, David P.**

B.S., M.S., South Dakota State University; Ph.D., University of Oklahoma; Associate Professor of Physics

### **O'Neill-Jones, Peggy**

B.A., Loretto Heights College; M.S.S., University of Denver; Associate Professor of Technical Communications

### **Orlando, Vincent P.**

B.S., University of Scranton; M.S., Bloomsburg State College; Ph.D., Pennsylvania State University; Professor of Reading

### **Parker, Mary Virginia**

B.A., University of Tulsa; M.A., Ph.D., University of Colorado; C.P.A.; Professor of Accounting

### **Pasternak, Richard E.**

B.A., Holy Cross College; M.A., Louisiana State University; Ph.D., University of Alabama; Professor of Economics

### **Paynter, Howard L.**

## **2000-2001 College Catalog**

B.S.M.E., University of Wisconsin; M.S.M.E., University of Denver; P.E., Colorado; Professor of Mechanical Engineering Technology

### **Pence, Norman E.**

B.A., M.S., Southern Illinois University; Ph.D., Colorado School of Mines; Associate Professor of Computer Information Systems

### **Plachy, Jon M.**

B.A., M.Ed., Adams State College; M.A., Louisiana State University; Ed.D., Oklahoma State University; Professor of Mathematical Sciences

### **Pollman, Mary Jo**

B.A., University of Southern Mississippi; M.A., University of West Florida; Ph.D., Florida State University; Associate Professor of Early Childhood and Elementary Education

### **Pook, Laszlo**

B.S.E.E., M.S.E.E. and Ph.D., University of Colorado; Professor of Computer Information Systems

### **Powell, Frank R.**

B.S., Iowa State University; M.A., Adams State College; Ed.D., University of Utah; Professor of Human Performance and Sport

### **Poynter, James M.**

B.A., M.A., George Washington University; Associate Professor of Travel Administration

### **Prosenjak, Nancy**

B.S., Ohio State University; M.S., Youngstown State University; Ph.D., Kent State University; Assistant Professor of English

### **Provizer, Norman**

A.B., Lafayette College; M.A., Ph.D., University of Pennsylvania; Professor of Political Science

### **Quatrochi, Joseph A.**

B.S., Ft. Lewis College; M.S., Ph.D., University of New Mexico; Associate Professor of Human Performance and Sport

### **Quizar, Stephanie Ormes**

## **2000-2001 College Catalog**

A.B., Stanford University; M.A., University of Minnesota; M.A., University of Colorado; Ph.D., University of Colorado; Associate Professor of English

### **Rabinoff, Marc A.**

B.S., Southern Connecticut State College; M.S., Ed.S., University of Bridgeport; Ed.D., University of Houston; Professor of Human Performance and Sport

### **Rager, Kenneth A.**

B.A., Monmouth College; M.S., University of Illinois; Ph.D., University of Denver; Professor of Mathematical Sciences

### **Ransdell, Lisa**

B.A., M.A. and Ph.D., Ohio State University; Assistant Professor of Women's Studies

### **Ranwez, Alain D.**

A.B., Montclair State College; Ph.D., University of Missouri; Professor of French

### **Rao, Anil K.**

B.A., University of Colorado; M.S., Ph.D., University of Denver; Associate Professor of Biology

### **Rathbone, Steven E.**

B.S., Lee College; M.S. Indiana State University; D.A., Middle Tennessee State University; Assistant Professor of Human Performance and Sport

### **Regnell, John B.**

B.A., Stanford University; M.A., University of Nevada; M.L.S., University of Washington; Ph.D., Arizona State University; Professor of Political Science

### **Ring, Jeremiah J.**

B.A., M.A., Loyola University of Chicago; Ph.D., University of New Mexico; Professor of History

### **Robertson, James W.**

B.S., University of Colorado; M.B.A., University of Denver; Ph.D., University of Washington-Seattle; Dean, School of Business; Professor of Accounting

### **Rockwood, Anthony A.**

B.A., University of Denver; M.S., Colorado State University; Professor of Meteorology

## **2000-2001 College Catalog**

### **Romagnano, Lewis S.**

B.S., Polytechnic Institute of Brooklyn; M.S., Northern Arizona University; Ph.D., University of Colorado; Associate Professor of Mathematical Sciences

### **Rourke, William B., Jr.**

B.A., B.S., University of New Mexico; M.S., United States Naval Postgraduate School; M.B.A., Pepperdine University; Professor of Aerospace Science

### **Rowley, George S.**

B.S., Tri-State University; M.S., University of Toledo; P.E., Indiana; Professor of Civil Engineering Technology

### **Ruch, David**

B.S., Pomona College; M.S. and Ph.D., New Mexico State University; Associate Professor of Mathematics

### **Ruderman, Renee**

B.A., New York University; M.A., University of Denver; M.A., University of Colorado; Assistant Professor of English; Director of First Year Program

### **Ryu, Tae Ghil**

B.B.A., Yonsei University (Seoul); M.B.A., University of Missouri; Ph.D., Rutgers University; C.P.A.; Associate Professor of Accounting

### **Saltzman, Katherine A.**

B.A., California State University-Long Beach; M.Ed., Ed.D., University of Northern Colorado; Associate Professor of Human Services

### **Sandoval, Joseph G.**

B.A., Metropolitan State College of Denver; M.A., University of Colorado; J.D., University of Denver; Professor of Criminal Justice and Criminology

### **Saxe, Eugene W.**

B.A., M.A., Indiana State University; Ph.D., University of Denver; Professor of English

### **Schatz, Robert T.**

B.A., University of Delaware; M.A. and Ph.D., University of Massachusetts-Amherst; Assistant Professor of Psychology

## **2000-2001 College Catalog**

### **Schmidt, John C.**

B.S., St. Cloud State University; M.A., Ed.D., University of Northern Colorado; Professor of Industrial Studies

### **Schonbeck, Niels D.**

B.A., Swarthmore College; M.S., Ph.D., University of Michigan; Professor of Chemistry

### **Scillia, Charles**

B.A., SUNY at Stony Brook; M.A., Case Western Reserve University; Ph.D., Bryn Mawr College; Associate Director of the Center for Individualized Learning and Associate Professor Adjunct of Art

### **Scott, C. Richard**

B.S., Florida State University; M.A., Pepperdine University; M.B.A., D.B.A., Louisiana Tech University; Professor of Management

### **Scott, Judith DeLouche**

B.S., Centenary College of Louisiana; M.B.A., Ph.D., New Mexico State University; Associate Professor of Marketing

### **Serrano, Felipe**

B.S., Metropolitan State College of Denver; M.S., University of Wyoming; Associate Professor of Aerospace Science

### **Shanks, Nancy H.**

B.A. University of Colorado, Boulder; M.S., Drexel University, Philadelphia; Ph.D., University of Colorado, Denver; Associate Professor of Health Care Management

### **Shaw, Kenneth D.**

B.A., Nebraska State College; M.A., University of Northern Colorado; Ph.D., Illinois Institute of Technology; Professor of Computer Information Systems

### **Shultz, Gerald**

B.A., M.S., Ph.D., University of Colorado; Associate Professor of Mathematical Sciences

### **Shwayder, Martha L.**

B.A., University of Colorado; M.A., University of Northern Colorado; Ph.D., University of Colorado; Professor of Sociology

## **2000-2001 College Catalog**

### **Skougstad, David A.**

B.A., Occidental College; M.S., Colorado State University; Assistant Professor of Accounting

### **Smilnak, Roberta A.**

B.A., University of California-Berkeley; M.A., University of Kansas; Ph.D., Clark University; Professor of Geography

### **Smith, Craig M.**

B.A., M.F.A., University of California at Los Angeles; Professor of Art

### **Smith, Sheldon**

B.A., Pomona College; Ph.D., Ohio State University; Assistant Professor of Philosophy

### **Snozek, Dorothy A.**

B.S., California State College; M.S., Ohio University; Ed.D., West Virginia University; Professor of Reading

### **Speer, Andrew**

B.C.S., M.F.A., University of Kentucky; Assistant Professor of Art

### **Steinhauser, Sheldon E.**

B.S., Long Island University; Associate Professor of Sociology

### **Stoughton, Herbert W.**

B.S.E. (C.E.), M.S.E. (G.E.), Ph.D. (C.E.), University of Michigan; Associate Professor of Surveying and Mapping

### **Stranahan, Patricia L.**

B.A., University of Colorado; Ph.D., Washington University (St. Louis); M.D., University of Colorado Health Sciences Center; Professor of Biology

### **Sullivan, David**

B.A., University of Chicago; M.A., University of Illinois, Chicago; Ph.D., University of Illinois, Chicago; Assistant Professor of Philosophy

### **Sundbye, Linda**



## **2000-2001 College Catalog**

B.S., Texas A & M University; M.S. and Ph.D., University of Colorado; Assistant Professor of Mathematical Sciences

### **Susman, Ellen Pennes**

B.A., University of Rochester; Ph.D., University of Michigan; Professor of Psychology

### **Sveum, Myron**

B.A., Concordia College; B.S., M.S., South Dakota School of Mines; P.E., Colorado; Assistant Professor of Electrical Engineering Technology

### **Swensson, Jackie**

B.S., University of Southern Mississippi; M.Ed., Colorado State University; Ph.D., University of Colorado; Associate Professor of English

### **Swetnam, Leslie A.**

B.A., University of Northern Colorado; M.A., Michigan State University; Ph.D., Stanford University; Associate Professor of Early Childhood and Elementary Education

### **Synhorst, John**

B.S.E.E., South Dakota School of Mines and Technology; M.S.E.E., University of Santa Clara; P.E., Colorado and California; Associate Professor of Electrical Engineering Technology

### **Talman, Louis A.**

B.A., College of Wooster; M.A., Ph.D., University of Kansas; Associate Professor of Mathematical Sciences

### **Tamblyn, Hal**

B.M., M.M., University of Colorado; D.M.A., University of Kansas; Professor of Music

### **Taylor, Marilyn**

B.A., University of California-Berkeley; M.A., San Francisco State University; M.Ed., Lesley College; Ed.D., University of Denver; Professor of Secondary Education

### **Taylor, Ronald L.**

B.S., University of Denver; J.D., Arizona State University; Professor of Management

### **Thobhani, Akbarali H.**

## **2000-2001 College Catalog**

B.A., University of Maine; M.A., Ph.D., University of Denver; Professor of African American Studies; Director of the Institute for International and Intercultural Studies and Services

### **Thomas, Gwendolyn A.**

B.A., Bennett College; M.A., Temple University; Ph.D., University of Denver; Professor of English

### **Tian, Xiansheng**

B.A., Henan University, Kaifeng, China; M.A., SUNY-Cortland; Ph.D., Oklahoma State University; Assistant Professor of History

### **Tindall, Charles G.**

B.A., The College of Wooster; M.S. and Ph.D., Ohio State University; Associate Professor of Chemistry; Director of Forensic Science

### **Torres, Luis**

B.A., University of Colorado, Boulder; M.A., University of Washington, Ph.D., University of Washington; Associate Professor of Chicano Studies

### **Tucker, Patricia A.**

B.S., Kansas State University; M.S., University of Wisconsin; Ph.D., University of Wisconsin; Professor of Mathematical Sciences

### **Tull, Tara**

B.A., University of Colorado; M.S., Mankato State University; Instructor and Associate Director of Women's Studies

### **Uliss, Barbara**

B.A., Ohio State University; M.S., Ph.D., Case Western Reserve University; C.P.A. (Ohio); Associate Professor of Accounting

### **Vannucci, Cynthia L.**

B.S., University of Nevada; M.B.S., Amber University; Ph.D., The Pennsylvania State University; Assistant Professor of Meeting Administration

### **Vigil, Jane**

B.S., Brigham Young University; M.A., Brigham Young University; Ph.D., University of Nevada, Reno; Assistant Professor of English

## **2000-2001 College Catalog**

### **Visona, Monica B.**

A.B., Stanford University; M.A., Ph.D., University of California at Santa Barbara; Associate Professor of Art

### **Vitaska, Charles R.**

B.S., M.S., Southern Illinois University; Ph.D., Texas Tech University; Professor of Marketing

### **Voth, David R.**

B.S., M.S., University of North Dakota; Ph.D., Oregon State University; Professor of Biology

### **Wade, Roger C.**

B.A., State University of New York at Geneseo; Ph.D., University of Colorado; Associate Professor of Sociology

### **Wagner, Richard**

B.A., Carleton College; M.S. and Ph.D., University of Wisconsin-Madison; M.A.T., Washington University; Assistant Professor of Meteorology

### **Walker, Rosemarie E.**

B.S., Arizona State University; Ph.D., University of Utah; Assistant Professor of Chemistry

### **Wall, Donald D.**

B.S., Concordia Teachers College; M.A., DePaul University; Ph.D., University of Colorado; Professor of History

### **Watson, Mary Ann**

B.A., Grove City College; Ph.D., University of Pittsburgh; Professor of Psychology

### **Watson, Robert L.**

B.A., M.A., Ph.D., University of Colorado; Associate Professor of Human Services

### **Watts, Greg**

B.A., Kingston University (England); M.F.A., University of Florida; Associate Professor of Art

### **Wetzel, Jodi**

B.A., M.A., University of Utah; Ph.D., University of Minnesota; Professor of History and Women's Studies; Director of the Institute for Women's Studies and Services

## **2000-2001 College Catalog**

### **White, Cottee J.**

B.S., Florida A & M University; M.A., Indiana University; Ph.D., Florida State University;  
Professor of African American Studies

### **Wickelgren, Lyn W.**

A.B., Stanford University; M.S., Ph.D., Yale University; Professor of Psychology

### **Wieder, Milton J.**

B.S., M.A., Ph.D., City University of New York; Professor of Chemistry

### **Williams, David**

B.A. and M.A., Northern Illinois University; Ph.D., University of Illinois at Chicago; Assistant  
Professor of English

### **Williams-Gascon, Ann**

B.A., Adams State College; M.A., University of Cincinnati; Ph.D., Northwestern University;  
Professor of French

### **Worosz, Theophil J.**

B.A., M.A., State University of New York at Buffalo; Ph.D., University of Illinois; Associate  
Professor of Mathematical Sciences

### **Worster, Lawrence**

B.S., St. Lawrence University; B.A., University of Colorado, Boulder; M.Mus., University of  
Colorado, Boulder; Ph.D., University of Colorado, Boulder; Assistant Professor of Music

### **Worthy, Shawn C.**

B.A., University of Illinois; M.S. and Ph.D., Northern Illinois University; Assistant Professor of  
Human Services

### **Wright, Robert C.**

B.S., M.A., Eastern Michigan University; Ph.D., Clark University; Professor of Urban Studies

### **Yarar, Ruth Goldberg**

B.S., M.S., Hebrew University; M.Ph., University of London; Assistant Professor of  
Mathematical Sciences

### **Yunker, J. O.**

## **2000-2001 College Catalog**

A.B., Syracuse University; M.S., University of Illinois; Professor of Technical Communications

### **Zimbelman, Harold F.**

B.S.A.E., M.S.A.E., M.S.E.E., University of Colorado; P.E., Colorado; Professor of Civil Engineering Technology

### **Emeritus Faculty**

**Vance Aandahl**, M.A., Associate Professor Emeritus-English

**Yoga D. Ahuja**, Ph.D., Professor Emeritus-Philosophy

**Dan Alfaro**, Ph.D., Professor Emeritus-Student Teaching

**Dorothy Babcock**, R.N.M.S.C., Professor Emeritus-Health Professions

**Richard Balay**, D.A., Professor Emeritus-Mathematical Sciences

**Russell D. Bean**, Ph.D., Professor Emeritus-Accounting

**Donald Bennett**, Ed.D., Professor Emeritus-Elementary Education

**Stephen Benson**, Ph.D., Professor Emeritus-Philosophy

**Eugenia H. Berger**, Ph.D., Professor Emeritus-Education

**Barbara Blansett, Ph.D., Professor Emeritus-English**

**Dawn I. Brett**, D.S.W., Professor Emeritus-Social Work

**Alfonso Cervantes**, Ph.D., Associate Professor Emeritus-Spanish

**Ernest Jose Cisneros**, D.A., Associate Professor Emeritus- Mathematical Sciences

**Jett Conner**, Ph.D., Associate Vice President Emeritus, Professor-Political Science

**Doris Cost**, Ed.D., Associate Professor Emeritus-Marketing

**Richard Daetwiler**, Th.D., Professor Emeritus-Drug/Alcohol

**Alan M. Dahms**, Professor Emeritus-Psychology

**Edward Davies**, Ph.D., Professor Emeritus-Physics

**Lois C. Dilatush**, Ph.D., Professor Emeritus-Sociology

**Eugene Eidy, M.A., Professor Emeritus -Art**

**Antonio Esquibel**, Ph.D., Professor Emeritus-Spanish

**Juan Esteve**, Ph.D., Professor Emeritus-Spanish

**Jaqueline C. Funk**, Ph.D., Professor Emeritus-Nursing

**Furman Griffis**, Ed.D, Associate Professor Emeritus-Human Performance, Sport and Leisure Studies

**Hartenstein, Oliva Lopez**, M.A., Associate Professor Emeritus-Spanish

**Charles W. Hayes**, M.A., Professor Emeritus-Art

**Gary H. Holbrook**, M.S., Professor Emeritus-Speech Communication

**Robert Hollenbeck**, Ph.D., Professor Emeritus-Biology

**Charles Howerton**, Ph.D., Professor Emeritus of Computer Science

**Pat R. Johnson**, M.S., Assistant Professor Emeritus-Human Performance and Sport

**Sandra Jones**-Director Emeritus-Personnel/Payroll Services

**Edward W. Karnes**, Ph.D., Professor Emeritus-Psychology

**Larry Keating**, M.S., Professor Emeritus-Electrical Engineering Technology

**John Lyke**, Ph.D., Professor Emeritus-Psychology

**Robert Mangold**, M.F.A., Professor Emeritus-Art

**Megan McClard**, Ph.D., Professor Emeritus-English

**Jerrald M. McCollum**, Ph.D., Professor Emeritus-Music

## **2000-2001 College Catalog**

**Porter W. McDonnell Jr.**, M.S., Professor Emeritus-Surveying

**Joe D. Megeath, Ph.D., Professor Emeritus-Computer Information Systems**

**Mary Miller**, Ph.D., Professor Emeritus-Health Professions

**Richard C. Misare**, M.S., Assistant Professor Emeritus-Mathematical Sciences (Posthumous)

**Vernon Moody, M.M.E., Associate Professor Emeritus-Music( Posthumous)**

**Richard Netzel**, Ph.D., Professor Emeritus-Physics

**Rachel B. Noel**, M.A., Professor Emeritus-African American Studies

**Charles M. Norick**, B.S., Emeritus Treasurer

**Gerald Palmer**, Ph.D., Professor Emeritus-Computer Information Systems & Management Science

**David W. Parker**, Ed.D., Professor Emeritus-Industrial Technology

**Ferdinand Patrone**, Ph.D., Professor Emeritus-Management

**Charles A. Prins**, Ph.D., Professor Emeritus-Computer Information Systems

**Robert J. Pugel**, Ph.D., Associate Professor Emeritus-English

**Joseph A. Raab**, Ph.D., Professor Emeritus-Mathematical Sciences

**Carleton H. Reed**, L.L.D., Professor Emeritus-Criminal Justice and Criminology

**Robert D. Reese**, M.A., Professor Emeritus-Aerospace Science

**Wayne Rollins**, M.A., Assistant Professor Emeritus-English

**Ida M. Schenck**, Ph.D., Professor Emeritus-Music

**E. Jean Schiff**, M.F.A., Professor Emeritus-Art

**Robert Schneider**, Ph.D., Professor Emeritus-Psychology

**Oscar H. Schuette**, Ed.D., Professor Emeritus-Marketing

**John O. Spradley**, Ph.D., Professor Emeritus-English

**Carol Steele**, M.S., Assistant Professor Emeritus-Biology

**Gerald W. Stone, Jr.**, Ph.D., Professor Emeritus-Economics

**Russell B. Stoner**, Ph.D., Professor Emeritus-Technical Communications

**Cedric Tarr**, Ph.D., Professor Emeritus-Political Science

**Brooks Van Everen**, Ph.D., Professor Emeritus-History

**G.W. "Bill" Vickers**, B.S., Emeritus Director-Computer Services

**Ron Whittekin**, D.A., Professor Emeritus-Mathematical Sciences

**Jackie Lynn Wilson**, D.P.A., Professor Emeritus-Criminal Justice and Criminology

**Jerry H. Wilson**, Ph.D., Professor Emeritus-Physics